

### REPORT TO CITY COUNCIL

Approved by:

Council Meeting of: February 20, 2019

Agenda Number: <u>C-5</u>

John Scarborough, Interim Public Works Director

Arnoldo Rodriguez, City Manager

#### SUBJECT:

Consideration of a Resolution for Bid Award to Municipal Maintenance Equipment, Inc. for the Purchase of One Diesel PM Certified Street Sweeper in the Amount of \$249,530.65.

#### RECOMMENDATION:

Staff recommends that the City Council (Council) approve the award to Municipal Maintenance Equipment, Inc. (MME) for the purchase of one diesel PM Certified street sweeper in the amount of \$249,530.65.

#### **SUMMARY:**

The City has been granted up to \$220,000 of federal funding from the Congestion Mitigation & Air Quality Program (CMAQ) for the purchase of one diesel PM Certified street sweeper. CMAQ awards funding to assist with these purchases if the equipment upgrade will include the upgrade from a non-certified sweeper to a PM 10 Certified sweeper. On October 29, 2018, the City advertised a Request for Proposals (RFP) from which the City received three bids. Staff recommends that an award be made to the lowest responsible bidder, MME.

#### **DISCUSSION:**

The City Streets Maintenance Division currently houses three street sweepers, all of which are necessary to provide an adequate service level to the community. Of the three units, #329 a 2003 model year has been scheduled for replacement for the last two fiscal years. This replacement is necessary due to the CNG tanks reaching a predetermined expiration date and the overall unit exceeding its life cycle expectancy of ten years. The remaining two sweepers are 2008 and 2014 models respectively which indicates that the 2008 model year sweeper will be recommended for replacement soon.

Staff anticipated the replacement of unit #329 in 2015 and moved to secure CMAQ funding to assist with the purchase of a new street sweeper at that time, as outlined below:

- December 2015 Council approved submitting a grant application for CMAQ funding for seven projects, including replacing unit #329 with a new PM-10 certified street sweeper.
- January 2016 The Madera County Transportation Commission (MCTC) approved all seven projects.
- December 2016 The sweeper replacement project was listed and approved in the 2017 Federal Transportation Improvement Program (FTIP).
- March 2017 City applied for a Buy America Waiver.
- April 2017 The Federal Government advises partner agencies that the Buy America Waiver requests were placed on hold pending program review.
- April 2018 The Buy America Waiver request was approved.
- May 2018 Unit #329 was retired from the City fleet.
- June 25, 2018 City staff requested an Authorization to Proceed from Caltrans.
- August 3, 2018 The Authorization to Proceed was received from Caltrans.

The RFP was advertised on the City's website and sent to several potential bidders by the Purchasing Department on October 29, 2018. Addendum Number 1 was posted to the City's website on November 20, 2018. On December 11, 2018, three bids were received, opened, and read as required. A committee comprised of staff from the Public Works and Fleet Departments reviewed and ranked the proposals based on price, conformity to specifications, and expected delivery date. The bid ranking is listed below:

1.	MME	\$236,325.23
2.	Haaker	\$270,949.75
3.	Terry Equipment Inc.	\$263,956.80

MME met the specification required and was able to provide the street sweeper at the lowest price. MME will begin production on the street sweeper once a purchase order has been issued and estimates 90 days for delivery.

#### FINANCIAL IMPACT:

The total bid amount is \$236,325.23. Additionally, the City requested pricing on several optional items. Below is the break down of the total proposed cost:

TOTAL	\$2	49,530.65
Optional Extended Warranty on Hopper	\$	5,465.54
Optional Front Spray Bar	\$	752.34
Optional Life Liner	\$	6,987.54
Schwarze/Freightliner Sweeper	\$2	36,325.23

The majority of this project will be funded by CMAQ in the amount of 88 percent of the purchase price, up to \$220,000. The City will be reimbursed by CMAQ for this amount once the purchase has been made. With the optional items included, CMAQ reimbursement will total \$219,586.97. The remaining local match of \$29,943.68 has been budgeted in the Fleet Equipment Replacement Fund, 30701250, for Fiscal Year 2018/19. This will have no impact to the City's General Fund.

#### **CONSISTENCY WITH THE VISION MADERA 2025 PLAN:**

Strategy 126 – Clean, attractive streets: Expand or develop programs to create clean, safe and aesthetically pleasing streets.

#### **ATTACHMENTS:**

- 1. Resolution
- 2. Request for Proposals and Addendum No. 1
- 3. Proposal from Municipal Maintenance Equipment, Inc.

<b>RESOL</b>	LITI	NO	NO	
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RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA, AWARDING A BID TO MUNICIPAL MAINTENANCE EQUIPMENT, INC. FOR THE PURCAHSE OF ONE DIESEL PM CERTIFIED STREET SWEEPER IN THE AMOUNT OF \$249.530.65.

WHEREAS, the City of Madera (City) has advertised for bids for one diesel PM Certified street sweeper; and

WHEREAS, bids were duly received, opened, and read by the City Purchasing Department as required; and

WHEREAS, a committee of staff from the Public Works and Fleet Departments reviewed and ranked each proposal based on price, delivery date, and conformity to specification; and WHEREAS, Municipal Maintenance Equipment, Inc. was the lowest responsible bidder.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MADERA

finds, orders and determines as follows:

- 1. The above recitals are true and correct.
- 2. The low bid submitted by Municipal Maintenance Equipment, Inc. is responsive.
- 3. The bid award to Municipal Maintenance Equipment, Inc. is hereby approved in the amount of \$249,530.65.
- 4. This Resolution is effective immediately upon adoption.

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#### **ATTACHMENT 2**



#### REQUEST FOR PROPOSAL

8 CUBIC YARD CLEAN DIESEL REGENERATIVE AIR SWEEPER

RFP # 201819-01

Federal Aid Project CMLNI-5157(105)

October 29, 2018

#### 1. INSTRUCTIONS AND CONDITIONS

A. No bid proposal will be considered for award unless submitted on the bid form included in this Request for Proposal (RFP). The bid must be fully complete and executed. Bidders shall send four (4) copies of the completed proposals which will include; three (3) bound and one (1) unbound copies with a copy of this RFP attached to the front of each proposal, with appropriate responses included.

Format: Proposal should be 8  $\frac{1}{2}$  x 11 inches, printed two-sided on recycled paper with removable bindings, bound in a single document and organized in sections. Binding can be as simple as a staple. Original and copies may be submitted in one envelope/package.

Each bid proposal, consisting of the original and copies as directed above, must be submitted in a sealed envelope addressed to Rosa Hernandez, Procurement Services Manager, City of Madera, Purchasing Department, 1030 South Gateway Drive, Madera, California 93637, and delivered prior to the time and date specified in this document. Each sealed envelope containing a bid proposal must have, on the outside, the name of the bidder, bidder's address and the statement "DO NOT OPEN UNTIL THE TIME OF BID OPENING" and in addition, must be plainly marked on the outside as follows:

Bid: 8 CUBIC YARD CLEAN DIESEL REGENERATIVE AIR SWEEPER

RFP: 201819-01

Federal Aid Project: CMLNI-5157(105)

Filing Deadline: Tuesday, November 27, 2018 - 3:00 PM

Proposals shall be received as set forth in the advertisement. Proposals received after the scheduled time for opening will be returned to the proposer unopened. The opening of any proposal shall **NOT** be considered as acceptance of the Proposal as a responsive proposal.

- B. The Bid Documents consist of this Request for Proposal and any addenda which may have been issued. Bidder shall thoroughly examine and be familiar with all Bid Documents. Submission of a bid shall constitute bidder's acknowledgment upon which the City may rely that bidder has thoroughly examined and is familiar with the Bid Documents. Failure or neglect of bidder to receive or examine all or part of the Bid Documents shall in no way relieve the bidder from any obligations with respect to this RFP or any resultant award. No claim for additional compensation will be allowed which is based upon a lack of knowledge of any part of the Bid Documents.
- C. Attention of bidders is especially directed to the specifications which, in addition to the bid proposal and these instructions, are the basis for evaluation and will be part of any agreement with the successful bidder. Any deviations from the specifications in this notice shall be proper reason for rejection of all of any part of the bid proposal.
- D. The City reserves the right to reject or accept any or all bids or parts thereof, and to accept or reject the alternatives individually or jointly, for any reason.
- E. The City reserves the right to consider any minor deviations from the specifications and determine the acceptance or rejection of such deviation.
  - Any proposal may be withdrawn at any time prior to the hour fixed for the opening, provided that a request in writing executed by the proposer or his/her duly authorized representative, for the withdrawal of such proposal is filed with Purchasing-Central Supply. The withdrawal of a proposal shall not prejudice the right of a proposer to file a new proposal prior to the time and date set for the opening. After the expiration of the time and date for receipt of proposals, a proposal may not be withdrawn or altered.
- F. The City of Madera recognizes its policy of providing equal opportunity to all qualified persons and reaffirms its commitment that there shall be no discrimination against qualified applicants, or employees on the basis of race, gender, color, national origin, religion, age, disability, sexual orientation or marital status. The City also specifically encourages interested Disadvantaged Business Enterprises to apply.
- G. The City reserves the right to seek supplementary information from any proposer at any time after official proposal opening and before the award. Such information will be limited to clarification or amplification of information asked in the original proposal.
- H. Issuance of the RFP and receipt of proposals does not commit the City to make an award. The City reserves the right to postpone the RFP process for its own convenience, to accept or reject any or all proposals received in response to this RFP, to negotiate with other than the selected company should negotiations with the selected company be terminated, or to cancel any section of this RFP.
- I. An award will be made as soon as possible after the opening of bids. Bid proposals

shall remain valid for at least sixty (60) days after the opening of bids. No bid proposal may be withdrawn after the bid opening.

- J. Contract shall be in the form of a City of Madera Purchase Order and attachments, including the Request for Proposal and response thereto which shall be a part thereof as though fully set forth therein. The Purchase Order will be very similar in content to Attachment A "Draft" Purchase Order which is provided for information purposes only and to help clarify City intent relevant to this RFP.
- K. There is no expressed or implied obligation for the City to reimburse responding firms for any expenses incurred in preparing proposals in response to this request.
- L. Bidder's Proprietary Information: Upon award, all documents provided by the successful bidder shall become public record. All documents provided by any bidders, other than the successful bidder, shall become public record in their entirety and subject to disclosure, unless said documents are retrieved by the bidder within ten (10) business days of the award. This shall also include but is not limited to documents for projects for which all proposals are rejected and projects for which an award is not made for any reason. In the event that one or more proposals are returned to the bidding parties, it is the intent of the City that such documents shall not become public records of the City unless required by the California Public Records Act or other provisions of law.
- M. The City reserves the right to modify RFP at any time. In the event it becomes necessary to modify or revise the RFP, a written amendment or addenda issued by City's Purchasing-Central Supply Division is the only method which should be relied on with respect to changes to the RFP. Bidder is responsible to contact City's Purchasing-Central Supply Division prior to submitting a bid to determine if any amendments were made to the RFP. Documents, amendments, addenda, etc. will the Purchasing page of the City's website be posted to http://www.cityofmadera.ca.gov/purchasing under Bid Announcement and Results.

No prior, current, or post award verbal conversations or agreements with any officer, agent, or employee of the City shall affect or modify any terms or obligations of this RFP, or any contract resulting from this procurement.

No questions or inquiries should be directed to any individual(s) at the locations detailed in this document. All inquiries should be submitted in writing per the process described in this document.

Questions and suggestions concerning the RFP must be submitted in writing no later than 3:00 P.M. Monday, November 19, 2018. Written questions or inquiries should be e-mailed, mailed or faxed to:

Rosa Hernandez Procurement Services Manager City of Madera City Purchasing-Central Supply 1030 South Gateway Drive Madera, CA 93637

#### rhernandez@cityofmadera.com

FAX: (559) 661-0760

N. Letters of Objection: Any Proposer believing that any part of the RFP, including the specifications and/or the bidding and evaluation procedures, is discriminatory against the Proposer or precludes the Proposer from being given reasonable consideration in the procurement process, must submit a letter ten (10) days prior to the scheduled filing deadline to City's Procurement Services Manager clearly stating the specific objection and the areas of concern to the Proposer and including a proposed method for resolution of such objections. Proposers are cautioned that any such objections not timely raised in the manner specified herein shall not be considered.

#### 2. SPECIFICATIONS

#### INTENT:

It is the intent of these specifications to describe a conventional chassis which is sufficiently rated to transport a full load of sweeping debris at speeds up to 55 MPH. The chassis shall be equipped with dual steering and operator controls and an automatic transmission. All tires shall be the same size and have dual tires on each side of the rear axle (six-wheel configuration).

These specifications are intended to describe the type, size and quality of one (1) 8 Cubic Yard Clean Diesel Regenerative Air Sweeper which will best meet the needs of the City of Madera. Any bid received that does not contain a bid for diesel equipment will be rejected.

The unit shall be new of current manufacture. No prototype, demo, used, vacuum type, or mechanical type sweepers will be accepted.

All parts not specifically mentioned which are necessary to provide a complete street sweeper shall be included in the bid and shall conform in strength, quality of materials, and workmanship to what is normally provided to the trade in general.

The Owner reserves the right to consider "or equal" components that are substantially equal or better in every respect to that so indicated or specified in the sweeper specifications. Decisions of or equal or equivalency will be at the sole interpretation of the City of Madera.

#### TERMS:

All equipment furnished under this contract shall be new, unused, and the same as the Page 4 of 25

manufacturer's current production model. Accessories not specifically mentioned herein, but necessary to furnish a complete unit ready for use, shall also be included. Unit shall conform to the best practice known to the body trade in design, quality of material and workmanship. The equipment furnished shall conform to all ANSI Safety Standards. Extra Heavy Duty (E.H.D.) as applied in this bid is interpreted to mean that the item to which it applies shall exceed the usual quality, capacity, strength and/or durability of standard productions items as required in street sweeper service.

The City reserves the right to reject any or all proposals or portions thereof. The right is also reserved to waive any minor irregularities ion the RFP. The City will Award to the lowest responsible Bidder whose proposal is the most advantageous to the City from the standpoint of suitability to purpose, quality, service, previous experience, price, date of delivery, and to accept the bid that is in the best interest of the City.

#### **INFORMATION FOR BIDDERS:**

All equipment must be PM-10 certified. All equipment must be legal to use on Federal and State Highways, must conform in all respects to the State of California Industrial Safety Orders, the Motor Vehicle Code, California Highway Patrol Regulations and must meet all Environmental Protection Agency Standards and Regulations.

Completed unit to be delivered to the City of Madera, City Yard, 1030 South Gateway Drive, Madera, California, 93637.

Prices quoted shall exclude all Federal Excise Tax.

Prices quoted shall include applicable State tax.

Bids must be submitted on the forms supplied by the City of Madera and include all applicable taxes and charges. It is required that the manufacturer's complete measurements and specifications be submitted and made a part of the bid.

Supplier shall keep records of parts used in the manufacture of the specified equipment and shall provide two copies to the City, of any improvement or modification that may improve the specified equipment.

Minimum requirements are detailed in these specifications. All dimensions, sizes, dates, and expressions of quality are minimum specifications, unless otherwise stated.

Bidders must indicate compliance for each item throughout the bid by writing "YES" or "NO". Failure to do so may be cause to reject the bid. All "NO" answers must be fully explained on the Exception to Specification Form and be attached to and submitted with bid. Failure to explain "NO" answers may be cause to reject bid.

#### **SECTION A - CHASSIS**

CHASSIS (2018 or newer Model Year Freightliner M2 (Dual) OR EQUAL):

Compliance		
	1.	Chassis will be conventional design with a minimum 33,000 GVW rating. State chassis make, model and point of manufacture
	2.	Wheelbase shall not exceed 176 inches.
	3.	Cab to axle shall be not more than 106 inches.
	4.	For safety, the rear of the sweeper shall be equipped with a rear panel to provide under ride protection. When dumping debris, material shall not be discharged on top of the rear panel.
	5.	Two frame mounted front tow hooks shall be provided
-	6.	One- (1) 25-gallon fuel tank shall be provided for single engine models. Dual engine models shall share one 50-gallon fuel tank. All tanks shall be easily accessible without raising or shifting any components. A fuel gauge, in cab, shall be supplied. Sight tube is not acceptable.
	7.	Diesel emissions shall be EPA 2018, with on-board diagnostics (OBD) and have a minimum capacity of 6 U.S. gallons diesel emissions fluid
CHASSIS	S EN	GINE:
	1.	Truck engine shall be 2018 California Air Resources Board Emission Compliant, Cummins ISB 6.7-200 or equivalent, turbocharged diesel, 200 HP @ 2300 RPM, 520ft-lbs. @ 1600 RPM.
	2.	Truck engine shall be equipped with a single vertical exhaust system. Exhaust shall not extend above top of sweeper housing.
	3.	Engine shall be equipped with block heater.
	4.	Radiator fan shall be viscous drive type.
AUXILIAI	RY E	ENGINE: (OPTIONAL)
-	1.	If equipped, auxiliary engine to be mounted on sweeper for easy access and to minimize noise levels in cab during sweeping operation.
	2.	The sweeper power unit shall be a diesel fueled, water cooled, CARB tier 4 Final emissions certified, industrial engine. Engine output shall not be less than 275 lb./ft of torque, developing not less than 99 HP @ 2400 RPM.
-	3.	If equipped, auxiliary engine shall incorporate a diesel fuel system that is B20

		diesel compatible.
	4.	12 volt ignition, electric starter and minimum 95 amp alternator with charge indicator gauge mounted on control console in cab.
	5.	Electric linear actuator/revolution limiter for power unit throttle control.
	6.	A suitable size work platform will be provided to allow safe access to auxiliary engine area if the auxiliary engine placement, chassis wheelbase, and sweeper configuration provides sufficient area to allow a work platform to be installed.
	7.	Access will be accomplished from the ground level by steel steps covered with anti-skid grating and proper size grab handle to insure maximum safe entry and exit from work platform.
	8.	Work platform, if installed, will have suitable safety rails to provide a safe work area.
TRANSM	IISSI	ON, AXLES, WHEELS & BRAKES:
	1.	An Allison 2500 RDS series (or approved equal) automatic transmission shall be provided.
	2.	Sweeper shall include a rear axle having a gear ratio properly suited for engine/chassis configuration and capable of maintaining speeds appropriate for maximum sweeping efficiency.
	3.	Front axle shall be minimum 12,000 lb. and be equipped with taperleaf front suspension and shock absorbers.
	4.	The rear axle shall be 21,000 lb. or greater.
	5.	For safety, and to allow the emergency interchange of tires at a job site, the front and rear tires and rims shall be interchangeable.
	6.	Tires shall be tubeless radial tires 14 ply 11R 22.5 "G" load rated. The rear axle shall include dual tires for load capacity; singles will not be acceptable.
	7.	Rims shall be 10 hole steel hub piloted 22.5 x 8.25
<u></u> 9	8.	Parking brake shall be spring applied rear wheel drum and shoe.
	9.	Brakes shall be full air brakes S Cam with 18.7 CFM capacity compressor, with automatic slack adjusters and ABS.
	10.	Air system shall include a Bendix AD-9 air dryer with heater.

CAB:		
	1.	Maximum visibility, forward line of sight from the chassis front bumper to the point on the ground visible to the operator shall not exceed 8 feet for an SAE 98 <sup>th</sup> percentile size operator.
	2.	Steering shall be full power with dual operator controls.
	3.	Seats shall be adjustable, high back, covered with cloth for air circulation and include 3 point seat belts. Seats shall be air ride on both sides.
	4.	Sweeper shall include two (2) heated and remote control, outside west coast type mirrors with lower 8 inch convex lens for easy viewing of the side broom during sweeping.
	5.	To maximize operator visibility of the curb and sweeping gear, a 12" outside RH and LH fender mirror shall be mounted forward of the front wheels.
	6.	For safety during night sweeping, switches shall be illuminated so that they can be readily identified without the use of the cab dome light.
	7.	Switches shall be clearly identified by name and symbol.
	8.	Cab interior environment shall be fully air-conditioned including a fresh air heater/ventilator/defroster.
	9.	Cab shall have full flow through ventilation for optimal temperature control and operator comfort.
	10.	Wipers shall have intermittent feature.
·——	11.	Interior of cab shall have acoustical insulation for low operating noise, automotive type trim, and center sweeper console.
() <del></del>	12.	All glass shall be tinted safety glass.
	13.	Each operator position shall have adjustable sun visor.
	14.	Doors shall be equipped with keyed alike locks.
	15.	Door windows shall be roll up type.
	16.	Side windows shall have defogger.
	17.	Cab shall include two 12V power supplies
	18.	Radio shall be factory AM/FM with standard speakers.
	19.	Dual Electric horns shall be provided.

	20.	Adjustable tilt steering wheel
		f
INSTRUM	/IEN	TS:
	1.	Chassis left side operator instrument panel shall be chassis OEM, full vision illuminated with tachometer, speedometer, odometer, trip odometer, hour meter, fuel gauge, water temperature gauge, oil pressure gauge, transmission temperature gauge, air pressure gauge, and volt gauge.
	2.	Chassis right side operator instrument panel shall be chassis OEM, full vision illuminated with tachometer, speedometer, fuel gauge, water temperature gauge, oil pressure gauge, transmission temperature gauge, air pressure gauge, and volt gauge.
	3.	Chassis engine instruments shall include warning light and chime for low coolant level, low oil level, and high coolant temperature to warn the operator of a potential problem before any damage to the engine occurs.
	4.	Console shall have left/right primary driver switch.
	5.	Hydraulic functions shall be controlled by rocker switches located in the cab mounted control panel.
	6.	Truck instruments shall include warning lights for battery.
	7.	All console switches including transmission controls and all gauges shall be illuminated.
	8.	Intake mounted air restriction indicator with graduations.
ELECTR	ICAL	_: -:
	1.	Batteries should be located in an enclosed accessible environment for long life and ease of service.
-	2.	Chassis shall have two (2) maintenance free batteries rated at not less than 1850 CCA total, 12 volt.
	3.	Chassis engine shall have a 160 amp alternator
	4.	Chassis lighting shall include sealed multi-beam halogen head-lights, stop lights tail lights, backup lights, license plate lights, clearance lights, signal lights illuminated gauges and instrument panel, and directional lights with hazard switch
-	5.	Chassis lighting shall include gutter broom spot light on each side, and two real mounted work lights.

OTHER C	AB	ACCESS	ORIES:
	1.	Unit to in	clude 17" Catwalk behind cab to facilitate access to auxiliary engine, if e.
SECTION	IB-	- SWEEPI	ER MODULE:
SWEEPE	RG	ENERAL:	
Compliance			
	1.	Sweeper	shall be new PM-10 certified regenerative air street sweeper.
	2.	models of power.	eper shall be equipped with a variable speed device (Single engine only) approved at 560 ft-lb of input torque and 240 (179 kW) of input The variable speed device uses the chassis engine to power the chassis on and the sweeper components.
		a.	The variable speed device shall be located between the chassis engine and the transmission for maximum efficiency.
		b.	The variable speed device shall be capable of directly driving hydraulic pumps without the use of auxiliary Power Take Off's (PTO's) or belt drive systems.
		C.	The variable speed device shall be a planetary gearbox design; varies the input to output ratio. The system provides variable sweep speed operation through the chassis transmission and also directs engine powered PTO for the sweeper components.
		d.	The variable speed device "speed" control pump shall operate directly off the chassis engine coupling in all modes - "Work Mode" or "Road Mode". This pump shall provide variable operating flow - managing the ratio of input to output - for the variable speed device. The system shall include an electronic control module which manages pump flow.
		e.	The variable speed device shall operate directly off of the chassis engine coupling in all modes - "Work Mode" or "Road Mode". For the sweeper, the variable speed device PTO shall power a blower drive and sweeper pump through a conventional drive shaft.
	3.	be enclos	nmodate both easy access and sound attenuation, the front cowling shall sed on both sides by two access doors, one on each side of the sweeper ese doors provide access to serviceable items without tilting the hopper.

	4.	Front cowling and access doors shall use Quiet Pak™ acoustical insulation to sustain minimal ambient noise levels.
BLOWER	₹:	
	1.	Blower shall be hydraulically or belt driven. Hydraulically driven blowers shall be directly coupled to its motor to maximize efficiency. Minimum operating speed of the fan must be at least 3,300 RPM. Belt driven blowers shall be driven by a five (5) "V" groove power belt for maximum performance and simplicity of construction, with manual tension adjustment not requiring repositioning of the engine.
	2.	The blower housing shall be constructed of 10 gauge steel and lined with Linatex (or equal) for maximum extended wear in abrasive environments.
	3.	Blower housing shall have an inspection door for quick inspections without removing the blower housing or looking into the air exhaust opening.
	4.	Blower housing shall not be an integral part of the hopper. Replacement of the blower housing must be possible without any cutting and/or welding of the housing and or hopper.
	5.	The blower must not be directly exposed or open to the dust separator to preclude carry-over of material from the separator into the blower and blower housing.
	6.	The (optional) single-engine system, driven by the variable speed device, shall provide all horsepower for blower speed to effectively convey the bulk of material into the debris hopper; debris types such as but not limited to trash, sand, gravel, dirt, leaves and other organics.
	7.	Blower shall be a closed face turbine type, constructed of steel for optimal combination of hardness and abrasion resistance for maximum service life. An open-faced blower is not acceptable.
	8.	The blower shall be mounted and supported on both sides by heavy-duty greasable bearings. Greasing of the bearings must be possible from ground level, without tilting the hopper. Only greasable bearings are capable of tolerating the blower speeds required to produce simultaneous high air flow and high vacuum levels.
PICKUP	HΕΔ	,D·
	1.	The pickup head is a spring-supported, all steel fabricated pickup head with separated upper and lower chambers where pressurized air is blasted from the upper chamber through an elongated blast orifice, to the lower vacuum chamber.
	2.	The pickup head shall not be less than 90 inches wide and 30 inches long for a

		total area of 2700 square inches.
	3.	The pickup head shall have a minimum of 14 inch diameter pressure hose that connects the blower outlet with the pickup head.
	4.	The pickup head shall have a minimum 12 3/4 inch diameter suction hose with a quick disconnect coupling at the lower end near the pickup head. The quick disconnect enables the operator to inspect the suction hose as well as the inlet area of the pickup head without tilting the hopper.
	5.	The pressure side shall be equipped with a pressure relief valve/vacuum enhancer/leaf bleeder, for optimum leaf and light debris sweeping.
	6.	The front and rear debris curtains shall be removable without removing the pickup head from the unit.
	7.	Sweeping paths: Pickup head only = 90 inches One side broom and pickup head = 117 inches Two side brooms and pickup head = 144 inches
	8.	The pickup head shall be equipped with side mounted adjustable steel runners with carbide inserts with a minimum width of 1 1/8 inches for long life
	9.	The pickup head shall be raised and lowered hydraulically by a rocker switch on the control panel inside the cab.
BROOMS	<b>S</b> :	
	1.	The right and left side broom shall be a free floating trailing arm design intended to prevent damage when sweeping and encountering a fixed obstacle.
	2.	The side brooms shall be 42-inch diameter minimum, with hydraulically driven rotation.
	3.	Brooms shall be pneumatically or hydraulically raised, lowered and suspended.
	4.	Adjustable down pressure shall be controlled by the operator from the cab in order to maintain proper surface contact consistently during vertical broom travel.
	5.	The broom hydraulic motor drive shall provide not less than 6045 in-lbs. of torque for superior digging power and speed.
	6.	The side broom assemblies shall have greasable pivot pins.
	7.	The side broom assemblies shall be held in the storage position by a positive means to support broom during travel.

8	. Each side broom shall be controlled from in the cab by rocker switches.
9	When extended, brooms shall not exceed 60 inches from center of <b>FRONT</b> hub to center of broom head as measured along a line between the front and rear hubs oriented perpendicular to the front and rear axles.  Note: No exception to specification will be accepted for this item.
HOPPER:	
	. Volumetric capacity shall be approximately 8 cubic yards class hopper.
2	2. Hopper shall be constructed of 10 gauge steel sides, and ¼ in. steel floor.
3	3. The hopper floor angle when dumping shall be a minimum of 50°. Dumping shall be accomplished by tilting the hopper. Dump cylinder must have capacity to tilt and dump with full hopper.
	<ol> <li>The hopper floor angle shall be a minimum of 10 ° to assist in easy dump off of debris.</li> </ol>
5	<ol> <li>The hopper shall have an external hopper prop. No exception to this feature shall be accepted.</li> </ol>
6	5. The hopper rear door shall be hinged at the top and opened by means of a hydraulic cylinder. The hopper door shall open first prior to tilting the hopper. The hopper rear door should open at a minimum angle of 90 ° and be perpendicular to the hopper opening for maximum dumping action.
7	7. Hydraulic cylinder movement shall be controlled by two hydraulic valve levers located on the right-hand side of the hopper to view discharging of debris out of the hopper during dumping for maximum safety.
8	<ol> <li>The rear hopper door shall have an external door prop. No exception to this feature shall be accepted.</li> </ol>
	<ol> <li>The hopper rear door shall include an automatic lock mechanism for a tight fit and optimal sealing between the hopper and the rear door.</li> </ol>
	10. The rear door seal shall be a water resistant heavy-duty reinforced D style rubber seal for optimal sealing. Foam seals that can absorb moisture and freeze are not acceptable.
	11. Two 34½" x 43½" screens, for a total screen area 3000 square inches, of not less than 11 gauge steel shall be installed to allow air to move freely from the hopper into the centrifugal dust separator. The hopper screens shall be hinged and easily lowered for cleaning and inspection without tools or pin's removal.

DUST SE	PER	RATOR:
	1.	Dirt separation from the air stream shall be accomplished by means of a Labyrinth style dust separator that is installed at the air outlet of the hopper. The separator shall be designed so that it will not plug with debris.
	2.	To allow inspection and cleaning of the separator interior, the dust separator shall have minimum of two hinged inspection doors. Both doors are self-opening when tilting the hopper.
	3.	To allow automatic discharge of debris when tilting the hopper, the dust separator shall have a self-opening door made of abrasion resistant steel. Cable or other manual/mechanical means required for discharging the separator are not allowed.
SPRAY V	VAT	ER SYSTEM:
	1.	The water tank shall be a removable, 240 gal. total capacity. Constructed of rust-proof polyethylene.
	2.	A 16 ft. 8 inch fill hose with NST coupling with strainer shall be supplied.
	3.	A water level gauge shall be provided on the control console within the cab.
	4.	All water lines shall be color coded for easy identification.
	5.	The water filter must be accessible and cleanable from ground level without tilting the hopper. A ball valve must be provided at the filter inlet to allow cleaning of the filter without the loss of water from the water tank.
	6.	All water piping shall be external to the operator cab. No water lines capable of leaking or bursting shall be within the cab.
	7.	Three (3) water spray nozzles are located at each side broom for optimal dust control. A pivoting bracket is provided to allow for optimum positioning of the side broom spray nozzles.
	8.	Seven (7) easily removable water spray nozzles are located inside the pickup head. Water spray nozzles that spray only on the outside of the pickup head are not acceptable.
	9.	Three (3) removable water spray nozzles are located at the lower portion of the suction hose for lubrication of the suction hose and to further enhance dust control.
	10.	Two electric 12 volt, diaphragm type pumps will provide a capacity for 8 GPM @

V <del></del>	<ul> <li>One water pump is dedicated to supplying water to the pickup head and the suction hose for dust control.</li> </ul>
-	b. One water pump is dedicated to the side brooms for dust control.
	<ol> <li>Each water pump must have two flow rates, selectable by the operator from within the cab and capable of running dry without damage.</li> </ol>
HYDRAUL	IC SYSTEM:
	. Hydraulic pump shall be a gear driven, gear style pump for maintenance free operation, having a minimum flow capacity of 22.5 GPM @ 3400 RPM. This shall be used for the sweeper brooms, hopper dump, and pickup head raise/lower system.
2	<ol> <li>Reservoir capacity shall be not less than 23 gallons and have an exterior sight gauge. The reservoir must be located for quick inspections without tilting the hopper.</li> </ol>
3	<ol> <li>All hydraulic circuits shall have quick disconnect pressure check ports for ease of maintenance.</li> </ol>
	Hydraulic oil cooler shall be standard to provide adequate cooling with fresh air intake and accessible without raising the hopper. The hydraulic system shall operate below 200°F.
	<ol> <li>To minimize the hazards of potential leakage, all high pressure fittings shall be O- Ring Face Seal (ORFS) type.</li> </ol>
6	Hydraulic system shall have 10 micron spin on filter.
PNEUMAT	IC SYSTEM:
	1. There shall be a PR4 protector type pressure protector for the chassis air system
:	2. A separate air tank for the sweeper air components shall be provided.
;	All pneumatic cylinders shall be interchangeable.
	<ol> <li>Each cylinder shall be controlled by a single, two position, solenoid valve mounted on a manifold with common input and exhaust.</li> </ol>
	5. There shall be a filter with a polycarbonate bowl to filter out contaminants down to 5 microns to prevent contamination in the air system.

# **ELECTRICAL SYSTEM:**

3 <del></del>	1.	Sweeper shall have an electronic back-up alarm for additional warning and safety when chassis is in reverse.
u <del></del>	2.	Sweeper shall have a top beacon, four corner strobes, and a Whelen Model TACF85 traffic advisor with control head.
	3.	'Sweeper lighting shall include rear identification lights and rear clearance lights.
	4.	Sweeper warning lights shall include hopper up, hopper door open and hopper full load.
	5.	Sweeper wiring harnesses shall be color-coded and "function stamped" with appropriate circuit name every four inches, i.e. "Ignition", "Side Broom" on each wire.
-	6.	All electrical circuits must be protected by automotive style blade fuses.
	7.	All lights should be LED style.
CONTRO	LS:	
	1.	All sweeper controls shall be mounted on a stationary central console that allows for use and visibility from either right or left positions.
	2.	The controls shall include sweep, spray water and lighting functions.
-	3.	The controls for sweeping, spray water, and lighting functions shall be rocker switches.
	4.	Controls for sweep system shall include sweep/resume feature; allowing the automatic raise of side brooms and pickup head when chassis transmission gear selector is put into reverse, or with push of one button in cab.
INSTRUM	/IEN	TS:
	1.	If applicable, sweeper engine instruments shall include tachometer, hour meter, oil pressure, fuel, voltage, and coolant temperature for complete information for the operator on the condition of the auxiliary engine, visible from both operator positions.
	2.	Sweeper engine instruments shall include an auxiliary engine air intake restriction gauge for ease of maintenance.
	3.	Sweeper instruments shall include diagnostic information for the sweeper engine and sweeper functional information to include water level, sweeping mode and

		transport mode.
,	4.	Sweeper instruments shall include a "raised" hopper indicator, an "open" hopper door indicator and a "full" hopper indicator to notify the operator.
PAINT:		
*	1.	All visible exterior metallic surfaces shall be coated prior to assembly with polyester powder coat. The paint must be a minimum of 2 mils thick.
	2.	Exterior color of cab and sweeper shall be factory white and the interior grey.
	3.	Vehicle shall have an accent color of Grey or Black on the components and lower portions of the unit.
	_	
MANUAL	.S:	
	1.	Two (2) copies of the operation manual shall be provided.
-	2.	A parts manual shall be provided (chassis, packer, hydraulic, electric systems).
	3.	Maintenance manual, preferably in CDROM format if available.
-	4.	Two (2) copies of the lubrication chart.
WARRA	NTY:	(
	1.	Manufacturer's warranty shall be not less than one (1) year on entire sweeper, including all parts and labor.
	2.	Manufacturer's warranty shall be not less than three (3) years on chassis engine, including all parts and labor.
-	3.	Manufacturer's warranty shall be not less than lifetime protection against rust-through of the water tank.
	4.	Documentation of all Warranty & Extended Warranties offered
SERVICE	E AN	D TRAINING:
-	1.	Vendors shall have a full parts and service facility within a reasonable distance from the City of Madera. State location and distance.
-	2.	A qualified technician shall provide complete training to City of Madera personnel at the City of Madera Public Works yard. Training shall include safety, operation,

maintenance and service.

DELIVERY	:	
	1.	Sweeper shall be delivered F.O.B. City of Madera in operating condition,
2	2.	Acceptance shall be subject to the inspection and approval by the City.
QUALITY:		
1		Sweeper shall be manufactured by a company with a registered quality standard no less than ISO 9001.
OPTIONAL	_ IT	EMS:
•	se.	adera may choose, at its sole discretion, to add any or all of the optional items to Bidder shall state the amount to be added to the Bidder's Proposal, should each ed.
Cost		
\$	1.	Life Liner – hopper liner guaranteed for life of machine.
\$	2.	Front spray bar
\$	3.	Backup Camera
\$	4.	Auxiliary hydraulic pump

#### 3. EQUIVALENT PRODUCT

Bids will be accepted for consideration on any make or model that is equal or superior to the sweeper specified. Decisions of equivalency will be at the sole interpretation of the City. A blanket statement that equipment proposed will meet all requirements will **not** be sufficient to establish equivalence. Original manufacturer's brochures of the proposed unit are to be submitted with the proposal.

All modifications made to the standard production unit described in the sweeper manufacturer's brochures must have written chassis manufacturer approval and submitted with the bid, or the bid will be deemed "non-responsive" and rejected without further review. Bidder must be prepared to demonstrate a unit similar to the one proposed, if requested.

#### 4. FORM OF BIDS

- A. Purchase price shall include all costs, options and delivery or freight charges. In addition to the bid page included in this RFP, proposer shall attach a detailed breakdown of costs.
- B. Price should not include any Federal Excise Taxes, if they can be identified. An exemption certificate will be provided, if necessary.

DELIVERY:	Prior to delivery, merchandise shall be inspected by the dealer,

Approximate Delivery	/ Date:	

TITLE SHALL PASS AT POINT OF DELIVERY. FOR ITEMS DELIVERED TO CITY OF MADERA, SALES TAX IS 8.25%.

#### 5. NOTICE TO CONTRACTOR OF SPECIAL PROVISIONS

#### **Energy Conservation Requirements**

Energy Conservation - The contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

#### No Obligation by the Federal Government

The Purchaser and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this contract and shall not be subject to any obligations or liabilities to the Purchaser, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.

#### Suspension and Debarment

- 1. This contract is a covered transaction for purposes of 49 CFR Part 29. As such, the contractor is required to verify that none of the contractor, its principals, as defined at 49 CFR 29.995, or affiliates, as defined at 49 CFR 29.905, are excluded or disqualified as defined at 49 CFR 29.940 and 29.945.
- 2. The contractor is required to comply with 49 CFR 29, Subpart C and must include the requirement to comply with 49 CFR 29, Subpart C in any lower tier covered transaction it enters into.
- 3. By signing and submitting its bid or proposal, the bidder or proposer certifies as follows:
- 4. The certification in this clause is a material representation of fact relied upon by City of Madera. If it is later determined that the bidder or proposer knowingly rendered an erroneous certification, in addition to remedies available to City of Madera, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The bidder or proposer agrees to comply with the requirements of 49 CFR 29, Subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

#### Disadvantaged Business Enterprises

This contract is subject to the requirements of Title 49, Code of Federal Regulations, Part 26, *Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs*. The national goal for participation of Disadvantaged Business Enterprises (DBE) is 10%. The agency's overall goal for DBE participation is **0** %. A separate contract goal **has not** been established for this procurement.

#### Breaches and Dispute Resolution

**Disputes** - Disputes arising in the performance of this Contract which are not resolved by agreement of the parties shall be decided in writing by the authorized representative of the City's Project Manager. This decision shall be final and conclusive unless within [ten (10)] days from the date of receipt of its copy, the Vendor mails or otherwise furnishes a written appeal to the Project Manager. In connection with any such appeal, the Vendor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of the Project Manager shall be binding upon the Vendor and the Vendor shall abide be the decision.

**Performance During Dispute** - Unless otherwise directed by City, Vendor shall continue performance under this Contract while matters in dispute are being resolved.

Claims for Damages - Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the party or of any of his employees, agents or others for whose acts he is legally liable, a claim for damages therefor shall be made in writing to such other party within a reasonable time after the first observance of such injury of damage.

**Remedies** - Unless this contract provides otherwise, all claims, counterclaims, disputes and other matters in question between the City and the Vendor arising out of or relating to this agreement or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State in which the City is located.

Rights and Remedies - The duties and obligations imposed by the Contract and incorporated documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by the City or Vendor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

#### Non-Collusion Affidavit to be Executed by Bidder and Submitted with Bid

The undersigned [Contractor] certifies, to the best of his or her knowledge and belief, that:

- 1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- If any funds other than Federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form--LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, et seg.)]
- 3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

[Note: Pursuant to 31 U.S.C. § 1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such expenditure or failure.]

, certifies or affirms the truthfulness and accuracy of each ion and disclosure, if any. In addition, the Contractor understands and s of 31 U.S.C. A 3801, et seq., apply to this certification and disclosure,
Signature of Contractor's Authorized Official
Name and Title of Contractor's Authorized Official
Date

# NONLOBBYING CERTIFICATION FOR FEDERAL-AID CONTRACTS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- (I) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in conformance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

\* \* \* \* \* \* \* \* \* \* \* \* \*

# CITY OF MADERA BID PROPOSAL 8 CUBIC YARD CLEAN DIESEL REGENERATIVE AIR SWEEPER RFP #201819-01 Federal Aid Project CMLNI-5157(105)

Bidder hereby proposes to deliver to the City of Madera, 1030 South Gateway Drive, Madera, California, new equipment in accordance with the published specifications for the following prices.

MANUFACTURER	MODEL	
Purchase Price		\$
	Subtotal	\$
	Applicable Taxes	\$
	TOTAL PURCHASE PRICE	\$

# **ADDENDA**

This Proposal is submitted with respect to the changes to the contract included in addenda number/s

(Fill in addenda numbers if addenda have been received and insert, in this Proposal, any Engineer's Estimate sheets that were received as part of the addenda.)

# CITY OF MADERA BID PROPOSAL AUTHORIZATION 8 CUBIC YARD CLEAN DIESEL REGENERATIVE AIR SWEEPER RFP #201819-01 FEDERAL AID PROJECT CMLNI-5157(105)

DATE					
COMPANY NAME	e.				
STREET ADDRESS					
CITY / STATE / ZIP					
PHONE NUMBER	,				
EMAIL					
PERSON PREPARING BID					
POSITION					
SIGNATURE					

(THE BIDDER'S EXECUTION ON THE SIGNATURE PORTION OF THIS PROPOSAL SHALL ALSO CONSTITUTE AN ENDORSEMENT AND EXECUTION OF THOSE CERTIFICATIONS WHICH ARE A PART OF THIS PROPOSAL)

## **EXCEPTION TO SPECIFICATION**

Bidder shall be presumed to be in agreement with the terms and conditions of the RFP unless the Bidder takes specific exception to one or more of the conditions on this form.

Bidders are cautioned that by taking an exception they may be materially deviating from the RFP specification. If a Bidder materially deviates from the RFP specification, their proposal may be rejected. A material deviation is an exception to a specification which 1. affords the Bidder taking the exception a competitive advantage over other Bidders, or 2. Gives the City something significantly different than the City requested.

Bidder Name:		
Specification Description	<u>Explanati</u>	on of Exception
y signing this form, I acknowledge tha ualification, all terms and conditions si s exceptions above.		
Signature	Title Page 25 of 25	Date

#### ADDENDUM NO. 1

RFP #201819-01 Clean Diesel Regenerative Air Sweeper

Dated: 11/20/18

Issued by:

Rosa Hernandez, Procurement Services Manager

Posa Skinand

CITY OF MADERA

Purchasing – Central Supply 1030 South Gateway Drive

Madera, CA 93637

The foregoing documents are amended in the respects as herein set forth. This addendum and the amendments herein shall become part of said documents and of any contract entered into pursuant to said documents.

Title of RFP – Replace "8 Cubic Yard Clean Diesel Regenerative Air Sweeper" to "Diesel Regenerative Air Sweeper". Note that all references in the RFP to the previous title will adhere to the new title as amended in this Addendum.

Submission deadline has been extended from November 27, 2018 to December 11, 2018.

Deadline for Questions and suggestions has been extended from November 19, 2018 to December 3, 2018.

#### Section 1.0 added to Section 1. INSTRUCTIONS AND CONDITIONS as follows:

O. An award under this RFP will not be based solely on the lowest price. Proposals will be evaluated by a committee and each proposer will be scored on a point system. If an award is made, it will go to the bidder with the highest score.

Each proposer will be scored on the following point system, with a maximum of 100 points.

Price	45 points	
Delivery Date	20 points	
Conformity to Specification	35 points	

Section 2. A & B in it's entirety to be replaced with the following updated Specifications:

## SECTION A - CHASSIS

CHA	ASSIS	2018	ОГ	newer	Model	Year.

Compliance		
	1.	Chassis will be conventional design with a minimum 33,000 GVW rating. State chassis make, model and point of manufacture
	2.	Chassis wheel base shall be configured to provide sufficient turning radius to allow efficient sweeping access to cul-de-sacs, turn lane noseouts and other curved curbed areas. Manufacturer may be required to demonstrate turning radius capabilities.
	3.	For safety, the rear of the sweeper shall be equipped with a rear panel to provide under ride protection. When dumping debris, material shall not be discharged on top of the rear panel.
	<b>4</b> .	Two frame mounted front tow hooks shall be provided
	5.	Unit to have the capacity to carry 50 gallons of onboard diesel fuel in one or two tank configurations. All tanks shall be easily accessible without raising or shifting any components. A fuel gauge, in cab, shall be supplied. Sight tube is not acceptable.
	6.	Diesel emissions shall be EPA 2018, with on-board diagnostics (OBD) and have a minimum capacity of 3 U.S. gallons diesel emissions fluid
CHASSIS	ENG	INE:
:	1.	Truck engine shall be 2018 California Air Resources Board Emission Compliant, turbocharged diesel, approximately 200 HP @ 2300 RPM, 520ft-lbs. @ 1600 RPM.
	2.	Truck engine shall be equipped with a single vertical or horizontal exhaust system. Exhaust shall not extend above top or sides of sweeper housing.
	3.	Engine shall be equipped with block heater.
	4.	Radiator fan shall be viscous drive type.

**AUXILIARY ENGINE: (OPTIONAL)** 

	1.	If equipped, auxiliary engine to be mounted on sweeper for easy access and to minimize noise levels in cab during sweeping operation.
	2.	The sweeper power unit shall be a diesel fueled, water cooled, CARB tier 4 Final emissions certified, industrial engine.
	3.	If equipped, auxiliary engine shall incorporate a diesel fuel system that is B20 diesel compatible.
	4.	12-volt ignition, electric starter and minimum 90 amp alternator with charge indicator gauge mounted on control console in cab.
	5.	Electric linear actuator/revolution limiter for power unit throttle control.
	6.	A suitable size work platform will be provided to allow safe access to auxiliary engine area if the auxiliary engine placement, chassis wheelbase, and sweeper configuration provides sufficient area to allow a work platform to be installed.
	7.	Access will be accomplished from the ground level by steel steps covered with anti-skid grating and proper size grab handle to insure maximum safe entry and exit from work platform.
	8.	Work platform, if installed, will have suitable safety rails to provide a safe work area.
TRANS	MISS	SION, AXLES, WHEELS & BRAKES:
	1.	An automatic transmission shall be provided. Transmission to be fitted with an external spin-on type filter
	2.	Sweeper shall include a rear axle having a gear ratio properly suited for engine/chassis configuration and capable of maintaining speeds appropriate for maximum sweeping efficiency.
	3.	Front axle shall be minimum 12,000 lb. and be equipped with taperleaf front suspension and shock absorbers.
	4.	The rear axle shall be 21,000 lb. or greater.
	5.	For safety, and to allow the emergency interchange of tires at a job site, the front and rear tires and rims shall be interchangeable.
	6.	Tires shall be tubeless radial tires 14 ply 11R 22.5 "G" load rated. The rear axle shall include dual tires for load capacity; singles will not be

		acceptable.
	7.	Rims shall be 10-hole steel hub piloted 22.5 x 8.25
	8.	Parking brake shall be spring applied rear wheel drum and shoe.
	9.	Brakes shall be full air brakes S Cam with 18.7 CFM capacity compressor, with automatic slack adjusters and ABS.
2	10.	Air system shall include an air dryer with heater.
CAB:		
	1.	Maximum visibility, forward line of sight from the chassis front bumper to the point on the ground visible to the operator shall not exceed 8 feet for an SAE 98 <sup>th</sup> percentile size operator.
	2.	Steering shall be full power with dual operator controls.
	3.	Seats shall be adjustable, high back, covered with cloth for air circulation and include 3 point seat belts. Seats shall be air ride on both sides.
	4.	Sweeper shall include two (2) remote control, outside west coast type mirrors with lower 8-inch convex lens for easy viewing of the side broom during sweeping.
	5.	To maximize operator visibility of the curb and sweeping gear, a 12" outside RH and LH fender mirror shall be mounted forward of the front wheels.
	6.	For safety during night sweeping, switches shall be illuminated so that they can be readily identified without the use of the cab dome light.
	7.	Switches shall be clearly identified by name and symbol.
	8.	Cab interior environment shall be fully air-conditioned including a fresh air heater/ventilator/defroster.
	9.	Cab shall have full flow through ventilation for optimal temperature control and operator comfort.
	10.	Wipers shall have intermittent feature.
	11.	Interior of cab shall have acoustical insulation for low operating noise, automotive type trim, and center sweeper console.
	12	All class shall be tinted safety class

-	13.	Each operator position shall have adjustable sun visor.
	14.	Doors shall be equipped with keyed alike locks.
	15.	Door windows shall be roll up type.
-	16.	Side windows shall have defogger.
-	17.	Cab shall include two 12V power supplies
	18.	Radio shall be factory AM/FM with standard speakers.
<del></del>	19.	Dual Electric horns shall be provided.
·	20.	Adjustable tilt steering wheel
INSTRUMENTS:		
	1.	Chassis left side operator instrument panel shall be chassis OEM, full vision illuminated with tachometer, speedometer, odometer, trip odometer, hour meter, fuel gauge, water temperature gauge, oil pressure gauge, transmission temperature gauge, air pressure gauge, and volt gauge.
-	2.	Chassis right side operator instrument panel shall be chassis OEM, full vision illuminated with tachometer, speedometer, fuel gauge, water temperature gauge, oil pressure gauge, transmission temperature gauge, air pressure gauge, and volt gauge.
	3.	Chassis engine instruments shall include warning light and chime for low coolant level, low oil level, and high coolant temperature to warn the operator of a potential problem before any damage to the engine occurs.
	4.	Console shall have left/right primary driver switch.
—	5.	Hydraulic functions shall be controlled by rocker switches located in the cab mounted control panel.
	6.	Truck instruments shall include warning lights for battery.
	7.	All console switches including transmission controls and all gauges shall be illuminated.
	8.	Intake mounted air restriction indicator with graduations.

ELECTRICAL:		
	1.	Batteries should be located in an enclosed accessible environment for long life and ease of service.
-	2.	Chassis shall have maintenance free batteries rated at not less than 1850 CCA total, 12-volt.
19	3.	Chassis engine shall have a minimum 160 amp alternator
	4.	Chassis lighting shall include sealed multi-beam halogen head-lights, stop lights, tail lights, backup lights, license plate lights, clearance lights, signal lights, illuminated gauges and instrument panel, and directional lights with hazard switch.
	5.	Chassis lighting shall include gutter broom spot light on each side, and two rear mounted work lights.
OTHER	CAE	ACCESSORIES:
	1.	Unit to include 17" Catwalk behind cab to facilitate access to auxiliary engine, if applicable.
<u>SECTIO</u>	NΒ	- SWEEPER MODULE:
SWEEP	ER (	ENERAL:
Compliance	ı	
	1.	Sweeper shall be new PM-10 certified regenerative air street sweeper.
	2.	The sweeper shall be equipped with a variable speed device (Single engine models only). The variable speed device uses the chassis engine to power the chassis propulsion and the sweeper components.
		<ul> <li>The variable speed device shall be located between the chassis engine and the transmission for maximum efficiency.</li> </ul>
		<ul> <li>The variable speed device shall be capable of directly driving hydraulic pumps without the use of auxiliary Power Take Off's (PTO's) or belt drive systems.</li> </ul>
		c. The variable speed device shall be a planetary gearbox design; varies the input to output ratio. The system provides variable sweep speed operation through the chassis transmission and

		also directs engine powered PTO for the sweeper components.
		d. The variable speed device "speed" control pump shall operate directly off the chassis engine coupling in all modes - "Work Mode" or "Road Mode". This pump shall provide variable operating flow - managing the ratio of input to output - for the variable speed device. The system shall include an electronic control module which manages pump flow.
		e. The variable speed device shall operate directly off of the chassis engine coupling in all modes - "Work Mode" or "Road Mode". For the sweeper, the variable speed device PTO shall power a blower drive and sweeper pump through a conventional drive shaft.
	3.	To accommodate both easy access and sound attenuation, the front cowling shall be enclosed on both sides by two access doors, one on each side of the sweeper body. These doors provide access to serviceable items without tilting the hopper.
	4.	Front cowling and access doors shall use acoustical insulation to sustain minimal ambient noise levels.
BLOWE	ER:	
—	1.	Blower shall be hydraulically or belt driven. Hydraulically driven blowers shall be directly coupled to its motor to maximize efficiency. Minimum operating speed of the fan must be at least 3,300 RPM. Belt driven blowers shall be driven by a "V" groove power belt for maximum performance and simplicity of construction, with manual tension adjustment not requiring repositioning of the engine.
	2.	The blower housing shall be constructed of 10-gauge steel and lined for maximum extended wear in abrasive environments.
	3.	Blower housing shall have an inspection door for quick inspections without removing the blower housing or looking into the air exhaust opening.
	4.	Blower housing shall not be an integral part of the hopper. Replacement of the blower housing must be possible without any cutting and/or welding of the housing and or hopper.
	5.	The blower must not be directly exposed or open to the dust separator to preclude carry-over of material from the separator into the blower and

		blower housing.
. 1	6.	The (optional) single-engine system, driven by the variable speed device, shall provide all horsepower for blower speed to effectively convey the bulk of material into the debris hopper; debris types such as but not limited to trash, sand, gravel, dirt, leaves and other organics.
	7.	Blower shall be a closed face turbine type, constructed of steel for optimal combination of hardness and abrasion resistance for maximum service life. An open-faced blower is not acceptable.
	8.	The blower shall be mounted and supported on both sides by heavy-duty greaseable bearings. Greasing of the bearings must be possible from ground level, without tilting the hopper. Only greaseable bearings are capable of tolerating the blower speeds required to produce simultaneous high air flow and high vacuum levels.
PICKUF	HE.	AD:
	1.	The pickup head is a spring-supported, all steel fabricated pickup head with separated upper and lower chambers where pressurized air is blasted from the upper chamber through an elongated blast orifice, to the lower vacuum chamber.
	2.	The pickup head shall not be less than 90 inches wide and 30 inches long for a total area of 2700 square inches.
—	3.	The pickup head shall have a minimum of 14-inch diameter pressure hose that connects the blower outlet with the pickup head.
	4.	The pickup head shall have a minimum 12 3/4 inch diameter suction hose with a quick disconnect coupling at the lower end near the pickup head. The quick disconnect enables the operator to inspect the suction hose as well as the inlet area of the pickup head without tilting the hopper.
	5.	The pressure side shall be equipped with a pressure relief valve/vacuum enhancer/leaf bleeder, for optimum leaf and light debris sweeping.
	6.	The front and rear debris curtains shall be removable without removing the pickup head from the unit.
	7.	Minimum sweeping paths:

Pickup head only = 87 inches

# One side broom and pickup head = 117 inches Two side brooms and pickup head = 144 inches The pickup head shall be equipped with side mounted adjustable steel runners with carbide inserts with a minimum width of 1 1/8 inches for long life The pickup head shall be raised and lowered hydraulically by a rocker switch on the control panel inside the cab. **BROOMS:** The right and left side broom shall be a free floating trailing arm design intended to prevent damage when sweeping and encountering a fixed obstacle. 2. The side brooms shall be 42-inch diameter minimum, with hydraulically driven rotation. 3. Brooms shall be pneumatically or hydraulically raised, lowered and suspended. 4. Adjustable, tilt, and down pressure shall be controlled by the operator from the cab in order to maintain proper surface contact consistently during vertical broom travel. The broom hydraulic motor drive shall provide not less than 6045 in-lbs. of torque for superior digging power and speed. The side broom assemblies shall have greaseable pivot pins. 7. The side broom assemblies shall be held in the storage position by a positive means to support broom during travel. 8. Each side broom shall be controlled from in the cab by rocker switches. 9. When extended, brooms shall not exceed 60 inches from center of FRONT hub to center of broom head as measured along a line between the front and rear hubs oriented perpendicular to the front and rear axles. If compliance with this specification item is not achievable, manufacturer may be required to demonstrate units turning radius.

#### HOPPER:

	1.	Volumetric capacity shall be at minimum 7.3 cubic yards class hopper.
	2.	Hopper shall be constructed of 10-gauge steel sides, and $\frac{1}{4}$ in. steel floor.
	3.	The hopper floor angle when dumping shall be a minimum of 50°. Dumping shall be accomplished by tilting the hopper. Dump cylinder must have capacity to tilt and dump with full hopper.
	4.	The hopper floor angle shall be a minimum of 10 $^{\circ}$ to assist in easy dump-off of debris.
	5.	The hopper shall have an external hopper prop. No exception to this feature shall be accepted.
	6.	The hopper rear door shall be hinged at the top and opened by means of a hydraulic cylinder. The hopper door shall open first prior to tilting the hopper. The hopper rear door should open at a minimum angle of 90 ° and be perpendicular to the hopper opening for maximum dumping action.
	7.	Hydraulic cylinder movement shall be controlled by two hydraulic valve levers located on the right-hand side of the hopper to view discharging of debris out of the hopper during dumping for maximum safety.
	8.	The rear hopper door shall have an external door prop. No exception to this feature shall be accepted.
	9.	The hopper rear door shall include an automatic lock mechanism for a tight fit and optimal sealing between the hopper and the rear door.
	10.	The rear door seal shall be a water resistant heavy-duty reinforced D style rubber seal for optimal sealing. Foam seals that can absorb moisture and freeze are not acceptable.
	11.	Screens of not less than 11- gauge steel shall be installed to allow air to move freely from the hopper into the centrifugal dust separator. The hopper screens shall be hinged and easily lowered for cleaning and inspection without tools or pin's removal.
DUST SI	EPE	RATOR:
	1.	Dirt separation from the air stream shall be accomplished by means of a Labyrinth style dust separator that is installed at the air outlet of the hopper. The separator shall be designed so that it will not plug with debris

	2.	To allow inspection and cleaning of the separator interior, the dust separator shall have minimum of two hinged inspection doors. Both doors are self-opening when tilting the hopper.
	3.	To allow automatic discharge of debris when tilting the hopper, the dust separator shall have a self-opening door made of abrasion resistant steel. Cable or other manual/mechanical means required for discharging the separator are not allowed.
SPRAY	WA	TER SYSTEM:
	1.	The water tank shall be a removable, 240 gal. total capacity. Constructed of rust-proof polyethylene.
	2.	A minimum 16 ft. fill hose with NST coupling with strainer shall be supplied.
	3.	A water level gauge shall be provided on the control console within the cab.
	4.	All water lines shall be color coded for easy identification.
	5.	The water filter must be accessible and cleanable from ground level without tilting the hopper. A ball valve must be provided at the filter inlet to allow cleaning of the filter without the loss of water from the water tank.
	6.	All water piping shall be external to the operator cab. No water lines capable of leaking or bursting shall be within the cab.
() <u></u> ?	7.	Three (3) water spray nozzles are located at each side broom for optimal dust control. A pivoting bracket is provided to allow for optimum positioning of the side broom spray nozzles.
	8.	Seven (7) easily removable water spray nozzles are located inside the pickup head. Water spray nozzles that spray only on the outside of the pickup head are not acceptable.
( <u></u> )	9.	Three (3) removable water spray nozzles are located at the lower portion of the suction hose for lubrication of the suction hose and to further enhance dust control.
	10.	Electric 12-volt, diaphragm type pumps will provide a capacity for 8 GPM @ 40PSI to the pickup head, the suction hose and the side brooms.
		a. One water pump is dedicated to supplying water to the pickup

		head and the suction hose for dust control.
		<ul> <li>b. One water pump is dedicated to the side brooms for dust control.</li> </ul>
	11.	Each water pump must have two flow rates, selectable by the operator from within the cab and capable of running dry without damage.
HYDRA	ULIC	SYSTEM:
A.	1.	Hydraulic pump shall be a gear driven, gear style pump for maintenance free operation, having a minimum flow capacity of 22.5 GPM @ 3400 RPM. This shall be used for the sweeper brooms, hopper dump, and pickup head raise/lower system.
	2.	Reservoir capacity shall be not less than 20 gallons and have an exterior sight gauge. The reservoir must be located for quick inspections without tilting the hopper.
	3.	All hydraulic circuits shall have quick disconnect pressure check ports for ease of maintenance.
	4.	Hydraulic oil cooler shall be standard to provide adequate cooling with fresh air intake and accessible without raising the hopper. The hydraulic system shall operate below 200°F.
·	5.	To minimize the hazards of potential leakage, all high-pressure fittings shall be O-Ring Face Seal (ORFS) type.
-	6.	Hydraulic system shall have 10-micron spin on filter.
PNEUM	ATIC	SYSTEM:
-	1.	There shall be a PR4 protector type pressure protector for the chassis air system
	2.	A separate air tank for the sweeper air components shall be provided.
	3.	All pneumatic cylinders shall be interchangeable.
× <del></del> -	4.	Each cylinder shall be controlled by a single, two position, solenoid valve mounted on a manifold with common input and exhaust.
	5.	There shall be a filter with a polycarbonate bowl to filter out contaminants down to 5 microns to prevent contamination in the air system.

ELECTRICAL SYSTEM:		
	1.	Sweeper shall have an electronic back-up alarm for additional warning and safety when chassis is in reverse.
:	2.	Sweeper shall have a top beacon, four corner strobes, traffic advisor with control head.
	3.	Sweeper lighting shall include rear identification lights and rear clearance lights.
9 <del>7</del>	4.	Sweeper warning lights shall include hopper up, hopper door open and hopper full load.
	5.	Sweeper wiring harnesses shall be color-coded and "function stamped" with appropriate circuit name every four inches, i.e. "Ignition", "Side Broom" on each wire.
	6.	All electrical circuits must be protected by automotive style blade fuses.
<i>,</i>	7.	All lights should be LED style.
CONTR	OLS	: :
-	1.	All sweeper controls shall be mounted on a stationary central console that allows for use and visibility from either right or left positions.
	2.	The controls shall include sweep, spray water and lighting functions.
	3.	The controls for sweeping, spray water, and lighting functions shall be rocker switches.
	4.	Controls for sweep system shall include sweep/resume feature; allowing the automatic raise of side brooms and pickup head when chassis transmission gear selector is put into reverse, or with push of one button in cab.
INSTRU	MEI	NTS:
	1.	If applicable, sweeper engine instruments shall include tachometer, hour meter, oil pressure, fuel, voltage, and coolant temperature for complete information for the operator on the condition of the auxiliary engine, visible from both operator positions

-	2.	Sweeper engine instruments shall include an auxiliary engine air intake restriction gauge for ease of maintenance.
18=====2	3.	Sweeper instruments shall include diagnostic information for the sweeper engine and sweeper functional information to include water level, sweeping mode and transport mode.
	4.	Sweeper instruments shall include a "raised" hopper indicator, an "open" hopper door indicator and a "full" hopper indicator to notify the operator.
PAINT:		
	1.	All visible exterior metallic surfaces shall be coated prior to assembly with polyester powder coat. The paint must be a minimum of 2 mils thick.
9=====	2.	Exterior color of cab and sweeper shall be factory white and the interior grey.
	3.	Vehicle shall have an accent color of Grey or Black on the components and lower portions of the unit.
MANUA	LS:	
	1.	Two (2) copies of the operation manual shall be provided.
	2.	A parts manual shall be provided (chassis, packer, hydraulic, electric systems).
C <del></del>	3.	Maintenance manual, preferably in CDROM format if available.
	4.	Two (2) copies of the lubrication chart.
WARRA	NTY	<b>':</b>
	1.	Manufacturer's warranty shall be not less than one (1) year on entire sweeper, including all parts and labor.
	2.	Manufacturer's warranty shall be not less than three (3) years on chassis engine, including all parts and labor.
	3.	Manufacturer's warranty shall be not less than lifetime protection against rust-through of the water tank.
	4.	Documentation of all Warranty & Extended Warranties offered

SERVICE AND TRAINING:			
	1.	Vendors shall have a full parts and service facility within a reasonable distance from the City of Madera. State location and distance.	
	2.	A qualified technician shall provide complete training to City of Madera personnel at the City of Madera Public Works yard. Training shall include safety, operation, maintenance and service.	
DELIVE	RY:		
	1.	Sweeper shall be delivered F.O.B. City of Madera in operating condition.	
· ·	2.	Acceptance shall be subject to the inspection and approval by the City.	
QUALIT	Y:		
	1.	Sweeper shall be manufactured by a company with a registered quality standard no less than ISO 9001.	
OPTION	AL I	TEMS:	
The City of Madera may choose, at its sole discretion, to add any or all of the optional items to this purchase. Bidder shall state the amount to be added to the Bidder's Proposal, should each item be selected.			
Cost			
\$	1.	Life Liner – hopper liner guaranteed for life of machine.	
\$	2.	Front spray bar	
\$	3.	Backup Camera	
\$	4.	Auxiliary hydraulic pump	
Purchasing – Central Supply 559/661-5463 fax 559/661-0760			
	an an analysis of the state of		

End of Addendum No. 1.



#### REQUEST FOR PROPOSAL

8 CUBIC YARD CLEAN DIESEL REGENERATIVE AIR SWEEPER

RFP # 201819-01

Federal Aid Project CMLNI-5157(105)

October 29, 2018

#### 1. INSTRUCTIONS AND CONDITIONS

A. No bid proposal will be considered for award unless submitted on the bid form included in this Request for Proposal (RFP). The bid must be fully complete and executed. Bidders shall send four (4) copies of the completed proposals which will include; three (3) bound and one (1) unbound copies with a copy of this RFP attached to the front of each proposal, with appropriate responses included.

Format: Proposal should be 8 ½ x 11 inches, printed two-sided on recycled paper with removable bindings, bound in a single document and organized in sections. Binding can be as simple as a staple. Original and copies may be submitted in one envelope/package.

Each bid proposal, consisting of the original and copies as directed above, must be submitted in a sealed envelope addressed to Rosa Hernandez, Procurement Services Manager, City of Madera, Purchasing Department, 1030 South Gateway Drive, Madera, California 93637, and delivered prior to the time and date specified in this document. Each sealed envelope containing a bid proposal must have, on the outside, the name of the bidder, bidder's address and the statement "DO NOT OPEN UNTIL THE TIME OF BID OPENING" and in addition, must be plainly marked on the outside as follows:

**Bid: 8 CUBIC YARD CLEAN DIESEL REGENERATIVE AIR SWEEPER** 

RFP: 201819-01

Federal Aid Project: CMLNI-5157(105)

Filing Deadline: Tuesday, November 27, 2018 - 3:00 PM

Proposals shall be received as set forth in the advertisement. Proposals received after the scheduled time for opening will be returned to the proposer unopened. The opening of any proposal shall **NOT** be considered as acceptance of the Proposal as a responsive proposal.

- B. The Bid Documents consist of this Request for Proposal and any addenda which may have been issued. Bidder shall thoroughly examine and be familiar with all Bid Documents. Submission of a bid shall constitute bidder's acknowledgment upon which the City may rely that bidder has thoroughly examined and is familiar with the Bid Documents. Failure or neglect of bidder to receive or examine all or part of the Bid Documents shall in no way relieve the bidder from any obligations with respect to this RFP or any resultant award. No claim for additional compensation will be allowed which is based upon a lack of knowledge of any part of the Bid Documents.
- C. Attention of bidders is especially directed to the specifications which, in addition to the bid proposal and these instructions, are the basis for evaluation and will be part of any agreement with the successful bidder. Any deviations from the specifications in this notice shall be proper reason for rejection of all of any part of the bid proposal.
- D. The City reserves the right to reject or accept any or all bids or parts thereof, and to accept or reject the alternatives individually or jointly, for any reason.
- E. The City reserves the right to consider any minor deviations from the specifications and determine the acceptance or rejection of such deviation.
  - Any proposal may be withdrawn at any time prior to the hour fixed for the opening, provided that a request in writing executed by the proposer or his/her duly authorized representative, for the withdrawal of such proposal is filed with Purchasing-Central Supply. The withdrawal of a proposal shall not prejudice the right of a proposer to file a new proposal prior to the time and date set for the opening. After the expiration of the time and date for receipt of proposals, a proposal may not be withdrawn or altered.
- F. The City of Madera recognizes its policy of providing equal opportunity to all qualified persons and reaffirms its commitment that there shall be no discrimination against qualified applicants, or employees on the basis of race, gender, color, national origin, religion, age, disability, sexual orientation or marital status. The City also specifically encourages interested Disadvantaged Business Enterprises to apply.
- G. The City reserves the right to seek supplementary information from any proposer at any time after official proposal opening and before the award. Such information will be limited to clarification or amplification of information asked in the original proposal.
- H. Issuance of the RFP and receipt of proposals does not commit the City to make an award. The City reserves the right to postpone the RFP process for its own convenience, to accept or reject any or all proposals received in response to this RFP, to negotiate with other than the selected company should negotiations with the selected company be terminated, or to cancel any section of this RFP.
- 1. An award will be made as soon as possible after the opening of bids. Bid proposals

shall remain valid for at least sixty (60) days after the opening of bids. No bid proposal may be withdrawn after the bid opening.

- J. Contract shall be in the form of a City of Madera Purchase Order and attachments, including the Request for Proposal and response thereto which shall be a part thereof as though fully set forth therein. The Purchase Order will be very similar in content to Attachment A "Draft" Purchase Order which is provided for information purposes only and to help clarify City intent relevant to this RFP.
- K. There is no expressed or implied obligation for the City to reimburse responding firms for any expenses incurred in preparing proposals in response to this request.
- L. Bidder's Proprietary Information: Upon award, all documents provided by the successful bidder shall become public record. All documents provided by any bidders, other than the successful bidder, shall become public record in their entirety and subject to disclosure, unless said documents are retrieved by the bidder within ten (10) business days of the award. This shall also include but is not limited to documents for projects for which all proposals are rejected and projects for which an award is not made for any reason. In the event that one or more proposals are returned to the bidding parties, it is the intent of the City that such documents shall not become public records of the City unless required by the California Public Records Act or other provisions of law.
- The City reserves the right to modify RFP at any time. In the event it becomes M. necessary to modify or revise the RFP, a written amendment or addenda issued by City's Purchasing-Central Supply Division is the only method which should be relied on with respect to changes to the RFP. Bidder is responsible to contact City's Purchasing-Central Supply Division prior to submitting a bid to determine if any amendments were made to the RFP. Documents, amendments, addenda, etc. will posted to the Purchasing page of the City's http://www.cityofmadera.ca.gov/purchasing under Bid Announcement and Results.

No prior, current, or post award verbal conversations or agreements with any officer, agent, or employee of the City shall affect or modify any terms or obligations of this RFP, or any contract resulting from this procurement.

No questions or inquiries should be directed to any individual(s) at the locations detailed in this document. All inquiries should be submitted in writing per the process described in this document.

Questions and suggestions concerning the RFP must be submitted in writing no later than 3:00 P.M. Monday, November 19, 2018. Written questions or inquiries should be e-mailed, mailed or faxed to:

Rosa Hernandez
Procurement Services Manager
City of Madera City

Purchasing-Central Supply 1030 South Gateway Drive Madera, CA 93637

#### rhernandez@cityofmadera.com

FAX: (559) 661-0760

N. Letters of Objection: Any Proposer believing that any part of the RFP, including the specifications and/or the bidding and evaluation procedures, is discriminatory against the Proposer or precludes the Proposer from being given reasonable consideration in the procurement process, must submit a letter ten (10) days prior to the scheduled filing deadline to City's Procurement Services Manager clearly stating the specific objection and the areas of concern to the Proposer and including a proposed method for resolution of such objections. Proposers are cautioned that any such objections not timely raised in the manner specified herein shall not be considered.

#### 2. SPECIFICATIONS

#### INTENT:

It is the intent of these specifications to describe a conventional chassis which is sufficiently rated to transport a full load of sweeping debris at speeds up to 55 MPH. The chassis shall be equipped with dual steering and operator controls and an automatic transmission. All tires shall be the same size and have dual tires on each side of the rear axle (six-wheel configuration).

These specifications are intended to describe the type, size and quality of one (1) 8 Cubic Yard Clean Diesel Regenerative Air Sweeper which will best meet the needs of the City of Madera. Any bid received that does not contain a bid for diesel equipment will be rejected.

The unit shall be new of current manufacture. No prototype, demo, used, vacuum type, or mechanical type sweepers will be accepted.

All parts not specifically mentioned which are necessary to provide a complete street sweeper shall be included in the bid and shall conform in strength, quality of materials, and workmanship to what is normally provided to the trade in general.

The Owner reserves the right to consider "or equal" components that are substantially equal or better in every respect to that so indicated or specified in the sweeper specifications. Decisions of or equal or equivalency will be at the sole interpretation of the City of Madera.

#### TERMS:

All equipment furnished under this contract shall be new, unused, and the same as the Page 4 of 25

manufacturer's current production model. Accessories not specifically mentioned herein, but necessary to furnish a complete unit ready for use, shall also be included. Unit shall conform to the best practice known to the body trade in design, quality of material and workmanship. The equipment furnished shall conform to all ANSI Safety Standards. Extra Heavy Duty (E.H.D.) as applied in this bid is interpreted to mean that the item to which it applies shall exceed the usual quality, capacity, strength and/or durability of standard productions items as required in street sweeper service.

The City reserves the right to reject any or all proposals or portions thereof. The right is also reserved to waive any minor irregularities ion the RFP. The City will Award to the lowest responsible Bidder whose proposal is the most advantageous to the City from the standpoint of suitability to purpose, quality, service, previous experience, price, date of delivery, and to accept the bid that is in the best interest of the City.

#### INFORMATION FOR BIDDERS:

All equipment must be PM-10 certified. All equipment must be legal to use on Federal and State Highways, must conform in all respects to the State of California Industrial Safety Orders, the Motor Vehicle Code, California Highway Patrol Regulations and must meet all Environmental Protection Agency Standards and Regulations.

Completed unit to be delivered to the City of Madera, City Yard, 1030 South Gateway Drive, Madera, California, 93637.

Prices quoted shall exclude all Federal Excise Tax.

Prices guoted shall include applicable State tax.

Bids must be submitted on the forms supplied by the City of Madera and include all applicable taxes and charges. It is required that the manufacturer's complete measurements and specifications be submitted and made a part of the bid.

Supplier shall keep records of parts used in the manufacture of the specified equipment and shall provide two copies to the City, of any improvement or modification that may improve the specified equipment.

Minimum requirements are detailed in these specifications. All dimensions, sizes, dates, and expressions of quality are minimum specifications, unless otherwise stated.

Bidders must indicate compliance for each item throughout the bid by writing "YES" or "NO". Failure to do so may be cause to reject the bid. All "NO" answers must be fully explained on the Exception to Specification Form and be attached to and submitted with bid. Failure to explain "NO" answers may be cause to reject bid.

#### **SECTION A - CHASSIS**

CHASSIS (2018 or newer Model Year Freightliner M2 (Dual) OR EQUAL):

Page 5 of 25

#### ADDENDUM NO. 1

RFP #201819-01 Clean Diesel Regenerative Air Sweeper

Dated: 11/20/18

Issued by:

Rosa Hernandez, Procurement Services Manager

CITY OF MADERA

Purchasing – Central Supply 1030 South Gateway Drive

Madera, CA 93637

The foregoing documents are amended in the respects as herein set forth. This addendum and the amendments herein shall become part of said documents and of any contract entered into pursuant to said documents.

Title of RFP – Replace "8 Cubic Yard Clean Diesel Regenerative Air Sweeper" to "Diesel Regenerative Air Sweeper". Note that all references in the RFP to the previous title will adhere to the new title as amended in this Addendum.

Submission deadline has been extended from November 27, 2018 to December 11, 2018.

Deadline for Questions and suggestions has been extended from November 19, 2018 to December 3, 2018.

Section 1.0 added to Section 1. INSTRUCTIONS AND CONDITIONS as follows:

O. An award under this RFP will not be based solely on the lowest price. Proposals will be evaluated by a committee and each proposer will be scored on a point system. If an award is made, it will go to the bidder with the highest score.

Each proposer will be scored on the following point system, with a maximum of 100 points.

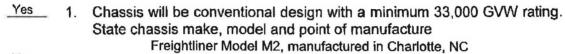
Price	45 points	
Delivery Date	20 points	
Conformity to Specification	35 points	

Section 2. A & B in it's entirety to be replaced with the following updated Specifications:

#### **SECTION A - CHASSIS**

#### CHASSIS 2018 or newer Model Year.





- Chassis wheel base shall be configured to provide sufficient turning radius to allow efficient sweeping access to cul-de-sacs, turn lane nose-outs and other curved curbed areas. Manufacturer may be required to demonstrate turning radius capabilities.
- Yes 3. For safety, the rear of the sweeper shall be equipped with a rear panel to provide under ride protection. When dumping debris, material shall not be discharged on top of the rear panel.
- 4. Two frame mounted front tow hooks shall be provided
- Unit to have the capacity to carry 50 gallons of onboard diesel fuel in one or two tank configurations. All tanks shall be easily accessible without raising or shifting any components. A fuel gauge, in cab, shall be supplied. Sight tube is not acceptable.
- Yes 6. Diesel emissions shall be EPA 2018, with on-board diagnostics (OBD) and have a minimum capacity of 3 U.S. gallons diesel emissions fluid

#### **CHASSIS ENGINE:**

- Yes 1. Truck engine shall be 2018 California Air Resources Board Emission Compliant, turbocharged diesel, approximately 200 HP @ 2300 RPM, 520ft-lbs. @ 1600 RPM.
- Yes 2. Truck engine shall be equipped with a single vertical or horizontal exhaust system. Exhaust shall not extend above top or sides of sweeper housing.
- Yes 3. Engine shall be equipped with block heater.
- Yes 4. Radiator fan shall be viscous drive type.

#### **AUXILIARY ENGINE: (OPTIONAL)**

Yes If equipped, auxiliary engine to be mounted on sweeper for easy access and to minimize noise levels in cab during sweeping operation. Yes The sweeper power unit shall be a diesel fueled, water cooled, CARB tier 4 Final emissions certified, industrial engine. Yes If equipped, auxiliary engine shall incorporate a diesel fuel system that is B20 diesel compatible. Yes 12-volt ignition, electric starter and minimum 90 amp alternator with charge indicator gauge mounted on control console in cab. Yes Electric linear actuator/revolution limiter for power unit throttle control. Yes 6. A suitable size work platform will be provided to allow safe access to auxiliary engine area if the auxiliary engine placement, chassis wheelbase, and sweeper configuration provides sufficient area to allow a work platform to be installed. Yes 7. Access will be accomplished from the ground level by steel steps covered with anti-skid grating and proper size grab handle to insure maximum safe entry and exit from work platform. Yes Work platform, if installed, will have suitable safety rails to provide a safe work area. TRANSMISSION, AXLES, WHEELS & BRAKES: Yes 1. An automatic transmission shall be provided. Transmission to be fitted with an external spin-on type filter Yes Sweeper shall include a rear axle having a gear ratio properly suited for engine/chassis configuration and capable of maintaining speeds appropriate for maximum sweeping efficiency. Yes Front axle shall be minimum 12,000 lb. and be equipped with taperleaf front suspension and shock absorbers. Yes The rear axle shall be 21,000 lb. or greater. Yes For safety, and to allow the emergency interchange of tires at a job site, the front and rear tires and rims shall be interchangeable. Yes Tires shall be tubeless radial tires 14 ply 11R 22.5 "G" load rated. The rear axle shall include dual tires for load capacity; singles will not be acceptable.

Yes	7.	Rims shall be 10-hole steel hub piloted 22.5 x 8.25
Yes	8.	Parking brake shall be spring applied rear wheel drum and shoe.
Yes	9.	Brakes shall be full air brakes S Cam with 18.7 CFM capacity compressor, with automatic slack adjusters and ABS.
Yes	10.	Air system shall include an air dryer with heater.
CAB:		
Yes	1.	Maximum visibility, forward line of sight from the chassis front bumper to the point on the ground visible to the operator shall not exceed 8 feet for an SAE 98th percentile size operator.
Yes	2.	Steering shall be full power with dual operator controls.
Yes	3.	Seats shall be adjustable, high back, covered with cloth for air circulation and include 3 point seat belts. Seats shall be air ride on both sides.
Yes	4.	Sweeper shall include two (2) remote control, outside west coast type mirrors with lower 8-inch convex lens for easy viewing of the side broom during sweeping.
Yes	5.	To maximize operator visibility of the curb and sweeping gear, a 12" outside RH and LH fender mirror shall be mounted forward of the front wheels.
Yes	6.	For safety during night sweeping, switches shall be illuminated so that they can be readily identified without the use of the cab dome light.
Yes	7.	Switches shall be clearly identified by name and symbol.
Yes	8.	Cab interior environment shall be fully air-conditioned including a fresh air heater/ventilator/defroster.
Yes	9.	Cab shall have full flow through ventilation for optimal temperature control and operator comfort.
Yes	10	. Wipers shall have intermittent feature.
Yes	11	. Interior of cab shall have acoustical insulation for low operating noise, automotive type trim, and center sweeper console.
Yes	12	. All glass shall be tinted safety glass.

Yes	13.	Each operator position shall have adjustable sun visor.
Yes	14.	Doors shall be equipped with keyed alike locks.
Yes	15.	Door windows shall be roll up type.
Yes	16.	Side windows shall have defogger.
Yes	17.	Cab shall include two 12V power supplies
Yes	18.	Radio shall be factory AM/FM with standard speakers.
Yes	19.	Dual Electric horns shall be provided.
Yes	20.	Adjustable tilt steering wheel
INSTRU	MEN	NTS:
Yes	1.	Chassis left side operator instrument panel shall be chassis OEM, full vision illuminated with tachometer, speedometer, odometer, trip odometer, hour meter, fuel gauge, water temperature gauge, oil pressure gauge, transmission temperature gauge, air pressure gauge, and volt gauge.
Yes	2.	Chassis right side operator instrument panel shall be chassis OEM, full vision illuminated with tachometer, speedometer, fuel gauge, water temperature gauge, oil pressure gauge, transmission temperature gauge, air pressure gauge, and volt gauge.
Yes	3.	Chassis engine instruments shall include warning light and chime for low coolant level, low oil level, and high coolant temperature to warn the operator of a potential problem before any damage to the engine occurs.
Yes	4.	Console shall have left/right primary driver switch.
Yes	5.	Hydraulic functions shall be controlled by rocker switches located in the cab mounted control panel.
Yes	6.	Truck instruments shall include warning lights for battery.
Yes	7.	All console switches including transmission controls and all gauges shall be illuminated.
Yes	8.	Intake mounted air restriction indicator with graduations.

#### **ELECTRICAL:**

Yes	1.	Batteries should be located in an enclosed accessible environment for long life and ease of service.
Yes	2.	Chassis shall have maintenance free batteries rated at not less than 1850 CCA total, 12-volt.
<u>Yes</u>	3.	Chassis engine shall have a minimum 160 amp alternator
Yes	4.	Chassis lighting shall include sealed multi-beam halogen head-lights, stop lights, tail lights, backup lights, license plate lights, clearance lights,

signal lights, illuminated gauges and instrument panel, and directional lights with hazard switch.

Yes 5. Chassis lighting shall include gutter broom spot light on each side, and two rear mounted work lights.

#### OTHER CAB ACCESSORIES:

No 1. Unit to include 17" Catwalk behind cab to facilitate access to auxiliary engine, if applicable.

#### SECTION B - SWEEPER MODULE:

#### SWEEPER GENERAL:

#### Compliance

N/A

N/A

Yes	1.	Sweeper shall be new PM-10 certified regenerative air street sweeper.
Yes	2.	The sweeper shall be equipped with a variable speed device (Single engine models only). The variable speed device uses the chassis engine to power the chassis propulsion and the sweeper components.
N/A		<ul> <li>The variable speed device shall be located between the chassis engine and the transmission for maximum efficiency.</li> </ul>

b. The variable speed device shall be capable of directly driving hydraulic pumps without the use of auxiliary Power Take Off's (PTO's) or belt drive systems.

c. The variable speed device shall be a planetary gearbox design; varies the input to output ratio. The system provides variable sweep speed operation through the chassis transmission and

also directs engine powered PTO for the sweeper components. N/A d. The variable speed device "speed" control pump shall operate directly off the chassis engine coupling in all modes - "Work Mode" or "Road Mode". This pump shall provide variable operating flow - managing the ratio of input to output - for the variable speed device. The system shall include an electronic control module which manages pump flow. N/A e. The variable speed device shall operate directly off of the chassis engine coupling in all modes - "Work Mode" or "Road Mode". For the sweeper, the variable speed device PTO shall power a blower drive and sweeper pump through a conventional drive shaft. No 3. To accommodate both easy access and sound attenuation, the front cowling shall be enclosed on both sides by two access doors, one on each side of the sweeper body. These doors provide access to serviceable items without tilting the hopper. Yes Front cowling and access doors shall use acoustical insulation to sustain minimal ambient noise levels. BLOWER: No Blower shall be hydraulically or belt driven. Hydraulically driven blowers shall be directly coupled to its motor to maximize efficiency. Minimum operating speed of the fan must be at least 3,300 RPM. Belt driven blowers shall be driven by a "V" groove power belt for maximum performance and simplicity of construction, with manual tension adjustment not requiring repositioning of the engine. Yes The blower housing shall be constructed of 10-gauge steel and lined for maximum extended wear in abrasive environments. Yes Blower housing shall have an inspection door for quick inspections without removing the blower housing or looking into the air exhaust opening. Yes Blower housing shall not be an integral part of the hopper. Replacement of the blower housing must be possible without any cutting and/or welding of the housing and or hopper.

The blower must not be directly exposed or open to the dust separator to preclude carry-over of material from the separator into the blower and

blower housing. N/R The (optional) single-engine system, driven by the variable speed device, shall provide all horsepower for blower speed to effectively convey the bulk of material into the debris hopper; debris types such as but not limited to trash, sand, gravel, dirt, leaves and other organics. Yes 7. Blower shall be a closed face turbine type, constructed of steel for optimal combination of hardness and abrasion resistance for maximum service life. An open-faced blower is not acceptable. Yes 8. The blower shall be mounted and supported on both sides by heavy-duty greaseable bearings. Greasing of the bearings must be possible from ground level, without tilting the hopper. Only greaseable bearings are capable of tolerating the blower speeds required to produce simultaneous high air flow and high vacuum levels. **PICKUP HEAD:** Yes The pickup head is a spring-supported, all steel fabricated pickup head with separated upper and lower chambers where pressurized air is blasted from the upper chamber through an elongated blast orifice, to the lower vacuum chamber. Yes 2. The pickup head shall not be less than 90 inches wide and 30 inches long for a total area of 2700 square inches. Yes The pickup head shall have a minimum of 14-inch diameter pressure hose that connects the blower outlet with the pickup head. Yes The pickup head shall have a minimum 12 3/4 inch diameter suction hose with a quick disconnect coupling at the lower end near the pickup head. The quick disconnect enables the operator to inspect the suction hose as well as the inlet area of the pickup head without tilting the hopper. Yes The pressure side shall be equipped with a pressure relief valve/vacuum enhancer/leaf bleeder, for optimum leaf and light debris sweeping.

Yes

Yes

7.

Pickup head only = 87 inches

The front and rear debris curtains shall be removable without removing

the pickup head from the unit.

Minimum sweeping paths:

### One side broom and pickup head = 117 inches

Two side brooms and pickup head = 144 inches

Yes	8.	The pickup head shall be equipped with side mounted adjustable steel runners with carbide inserts with a minimum width of 1 1/8 inches for long life
Yes	9.	The pickup head shall be raised and lowered hydraulically by a rocker switch on the control panel inside the cab.
BROOM	AS:	
Yes	1.	The right and left side broom shall be a free floating trailing arm design intended to prevent damage when sweeping and encountering a fixed obstacle.
Yes	2.	The side brooms shall be 42-inch diameter minimum, with hydraulically driven rotation.
Yes	3.	Brooms shall be pneumatically or hydraulically raised, lowered and suspended.
Yes	4.	Adjustable, tilt, and down pressure shall be controlled by the operator from the cab in order to maintain proper surface contact consistently during vertical broom travel.
Yes	5.	The broom hydraulic motor drive shall provide not less than 6045 in-lbs. of torque for superior digging power and speed.
Yes	6.	The side broom assemblies shall have greaseable pivot pins.
Yes	7.	The side broom assemblies shall be held in the storage position by a positive means to support broom during travel.
Yes	8.	Each side broom shall be controlled from in the cab by rocker switches.
<u>No</u>	9.	When extended, brooms shall not exceed 60 inches from center of FRONT hub to center of broom head as measured along a line between the front and rear hubs oriented perpendicular to the front and rear axles. If compliance with this specification item is not achievable, manufacturer may be required to demonstrate units turning radius.

### HOPPER:

Yes	1.	Volumetric capacity shall be at minimum 7.3 cubic yards class hopper.
Yes	2.	Hopper shall be constructed of 10-gauge steel sides, and $\frac{1}{4}$ in. steel floor.
Yes	3.	The hopper floor angle when dumping shall be a minimum of 50°. Dumping shall be accomplished by tilting the hopper. Dump cylinder must have capacity to tilt and dump with full hopper.
Yes	4.	The hopper floor angle shall be a minimum of 10 $^{\rm o}$ to assist in easy dump-off of debris.
Yes	5.	The hopper shall have an external hopper prop. No exception to this feature shall be accepted.
Yes	6.	The hopper rear door shall be hinged at the top and opened by means of a hydraulic cylinder. The hopper door shall open first prior to tilting the hopper. The hopper rear door should open at a minimum angle of 90 ° and be perpendicular to the hopper opening for maximum dumping action.
Yes	7.	Hydraulic cylinder movement shall be controlled by two hydraulic valve levers located on the right-hand side of the hopper to view discharging of debris out of the hopper during dumping for maximum safety.
Yes	8.	The rear hopper door shall have an external door prop. No exception to this feature shall be accepted.
Yes	9.	The hopper rear door shall include an automatic lock mechanism for a tight fit and optimal sealing between the hopper and the rear door.
Yes	10	The rear door seal shall be a water resistant heavy-duty reinforced D style rubber seal for optimal sealing. Foam seals that can absorb moisture and freeze are not acceptable.
Yes	11	. Screens of not less than 11- gauge steel shall be installed to allow air to move freely from the hopper into the centrifugal dust separator. The hopper screens shall be hinged and easily lowered for cleaning and inspection without tools or pin's removal.

#### **DUST SEPERATOR:**

Dirt separation from the air stream shall be accomplished by means of a
Labyrinth style dust separator that is installed at the air outlet of the
hopper. The separator shall be designed so that it will not plug with
debris.

Yes 2. To allow inspection and cleaning of the separator interior, the dust separator shall have minimum of two hinged inspection doors. Both doors are self-opening when tilting the hopper. Yes To allow automatic discharge of debris when tilting the hopper, the dust separator shall have a self-opening door made of abrasion resistant steel. Cable or other manual/mechanical means required for discharging the separator are not allowed. SPRAY WATER SYSTEM: The water tank shall be a removable, 240 gal. total capacity. Constructed of rust-proof polyethylene. Yes 2. A minimum 16 ft. fill hose with NST coupling with strainer shall be supplied. Yes A water level gauge shall be provided on the control console within the Yes All water lines shall be color coded for easy identification. Yes The water filter must be accessible and cleanable from ground level without tilting the hopper. A ball valve must be provided at the filter inlet to allow cleaning of the filter without the loss of water from the water tank. Yes 6. All water piping shall be external to the operator cab. No water lines capable of leaking or bursting shall be within the cab. Yes Three (3) water spray nozzles are located at each side broom for optimal dust control. A pivoting bracket is provided to allow for optimum positioning of the side broom spray nozzles. Yes 8. Seven (7) easily removable water spray nozzles are located inside the pickup head. Water spray nozzles that spray only on the outside of the pickup head are not acceptable. Yes 9. Three (3) removable water spray nozzles are located at the lower portion of the suction hose for lubrication of the suction hose and to further enhance dust control. Yes 10. Electric 12-volt, diaphragm type pumps will provide a capacity for 8 GPM @ 40PSI to the pickup head, the suction hose and the side brooms.

a. One water pump is dedicated to supplying water to the pickup

Yes

head and the suction hose for dust control. Yes b. One water pump is dedicated to the side brooms for dust control. No 11. Each water pump must have two flow rates, selectable by the operator from within the cab and capable of running dry without damage. HYDRAULIC SYSTEM: Hydraulic pump shall be a gear driven, gear style pump for maintenance free operation, having a minimum flow capacity of 22.5 GPM @ 3400 RPM. This shall be used for the sweeper brooms, hopper dump, and pickup head raise/lower system. Yes Reservoir capacity shall be not less than 20 gallons and have an exterior sight gauge. The reservoir must be located for quick inspections without tilting the hopper. Yes 3. All hydraulic circuits shall have quick disconnect pressure check ports for ease of maintenance. Yes Hydraulic oil cooler shall be standard to provide adequate cooling with fresh air intake and accessible without raising the hopper. The hydraulic system shall operate below 200°F. Yes To minimize the hazards of potential leakage, all high-pressure fittings shall be O-Ring Face Seal (ORFS) type. Yes 6. Hydraulic system shall have 10-micron spin on filter. PNEUMATIC SYSTEM: Yes 1. There shall be a PR4 protector type pressure protector for the chassis air system No A separate air tank for the sweeper air components shall be provided. Yes 3. All pneumatic cylinders shall be interchangeable. Yes Each cylinder shall be controlled by a single, two position, solenoid valve

mounted on a manifold with common input and exhaust.

5. There shall be a filter with a polycarbonate bowl to filter out contaminants

down to 5 microns to prevent contamination in the air system.

Yes

ELECTR	ICA	L SYSTEM:
Yes	1.	Sweeper shall have an electronic back-up alarm for additional warning and safety when chassis is in reverse.
Yes	2.	Sweeper shall have a top beacon, four corner strobes, traffic advisor with control head.
Yes	3.	Sweeper lighting shall include rear identification lights and rear clearance lights.
Yes	4.	Sweeper warning lights shall include hopper up, hopper door open and hopper full load.
Yes	5.	Sweeper wiring harnesses shall be color-coded and "function stamped" with appropriate circuit name every four inches, i.e. "Ignition", "Side Broom" on each wire.
Yes	6.	All electrical circuits must be protected by automotive style blade fuses.
Yes	7.	All lights should be LED style.
CONTR	OLS	<b>5:</b>
Yes	1	All sweeper controls shall be mounted on a stationary central console that allows for use and visibility from either right or left positions.
Yes	2.	The controls shall include sweep, spray water and lighting functions.
Yes	3.	The controls for sweeping, spray water, and lighting functions shall be rocker switches.
Yes	4.	Controls for sweep system shall include sweep/resume feature; allowing the automatic raise of side brooms and pickup head when chassis transmission gear selector is put into reverse, or with push of one button in cah

#### **INSTRUMENTS:**

1. If applicable, sweeper engine instruments shall include tachometer, hour meter, oil pressure, fuel, voltage, and coolant temperature for complete information for the operator on the condition of the auxiliary engine, visible from both operator positions.

Yes	2.	Sweeper engine instruments shall include an auxiliary engine air intake restriction gauge for ease of maintenance.	
Yes	3.	Sweeper instruments shall include diagnostic information for the sweeper engine and sweeper functional information to include water level, sweeping mode and transport mode.	
Yes	4.	Sweeper instruments shall include a "raised" hopper indicator, an "open" hopper door indicator and a "full" hopper indicator to notify the operator.	
PAINT:		×	
No	1.	All visible exterior metallic surfaces shall be coated prior to assembly with polyester powder coat. The paint must be a minimum of 2 mils thick.	
Yes	2.	Exterior color of cab and sweeper shall be factory white and the interior grey.	
Yes	3.	Vehicle shall have an accent color of Grey or Black on the components and lower portions of the unit.	
MANUA	LS:		
Yes	1.	Two (2) copies of the operation manual shall be provided.	
Yes	2.	A parts manual shall be provided (chassis, packer, hydraulic, electric systems).	
Yes	3.	Maintenance manual, preferably in CDROM format if available.	
Yes	4.	Two (2) copies of the lubrication chart.	
WARRA	NT'	Y;	
<u>Yes</u>	1.	Manufacturer's warranty shall be not less than one (1) year on entire sweeper, including all parts and labor.	
Yes	2.	Manufacturer's warranty shall be not less than three (3) years on chassis engine, including all parts and labor.	
Yes	3.	Manufacturer's warranty shall be not less than lifetime protection against rust-through of the water tank.	
Yes	4.	Documentation of all Warranty & Extended Warranties offered	

#### **SERVICE AND TRAINING:**

Yes 1. Vendors shall have a full parts and service facility within a reasonable distance from the City of Madera. State location and distance.

Yes 2. A qualified technician shall provide complete training to City of Madera personnel at the City of Madera Public Works yard. Training shall include safety, operation, maintenance and service.

#### **DELIVERY:**

Yes 1. Sweeper shall be delivered F.O.B. City of Madera in operating condition.

Yes 2. Acceptance shall be subject to the inspection and approval by the City.

#### QUALITY:

Yes 1. Sweeper shall be manufactured by a company with a registered quality standard no less than ISO 9001.

#### **OPTIONAL ITEMS:**

The City of Madera may choose, at its sole discretion, to add any or all of the optional items to this purchase. Bidder shall state the amount to be added to the Bidder's Proposal, should each item be selected.

Cost

\$6,455.00 1. Life Liner – hopper liner guaranteed for life of machine. Stainless Steel Hopper with Lifetime Warranty will be provided

\$695.00 2. Front spray bar

\$Included 3. Backup Camera

\$Included 4. Auxiliary hydraulic pump

Purchasing - Central Supply 559/661-5463 fax. - 559/661-0760

#### End of Addendum No. 1.

maintenance and service.

#### **DELIVERY:**

Yes 1. Sweeper shall be delivered F.O.B. City of Madera in operating condition.

Yes 2. Acceptance shall be subject to the inspection and approval by the City.

#### QUALITY:

Yes 1. Sweeper shall be manufactured by a company with a registered quality standard no less than ISO 9001.

#### **OPTIONAL ITEMS:**

The City of Madera may choose, at its sole discretion, to add any or all of the optional items to this purchase. Bidder shall state the amount to be added to the Bidder's Proposal, should each item be selected.

#### Cost

\$ 6,455.00 1. Life Liner – hopper liner guaranteed for life of machine. High Strength Stainless Steel Hopper Will be provided.

\$695.00 2. Front spray bar

\$ Included 3. Backup Camera

\$ Included 4. Auxiliary hydraulic pump

#### 3. EQUIVALENT PRODUCT

Bids will be accepted for consideration on any make or model that is equal or superior to the sweeper specified. Decisions of equivalency will be at the sole interpretation of the City. A blanket statement that equipment proposed will meet all requirements will **not** be sufficient to establish equivalence. Original manufacturer's brochures of the proposed unit are to be submitted with the proposal.

All modifications made to the standard production unit described in the sweeper manufacturer's brochures must have written chassis manufacturer approval and submitted with the bid, or the bid will be deemed "non-responsive" and rejected without further review. Bidder must be prepared to demonstrate a unit similar to the one proposed, if requested.

#### 4. FORM OF BIDS

- A. Purchase price shall include all costs, options and delivery or freight charges. In addition to the bid page included in this RFP, proposer shall attach a detailed breakdown of costs.
- B. Price should not include any Federal Excise Taxes, if they can be identified. An exemption certificate will be provided, if necessary.

DELIVERY: Prior to delivery, merchandise shall be inspected by the dealer.

Approximate Delivery Date: 45-90 Days A.R.O.

TITLE SHALL PASS AT POINT OF DELIVERY. FOR ITEMS DELIVERED TO CITY OF MADERA, SALES TAX IS 8.25%.

#### 5. NOTICE TO CONTRACTOR OF SPECIAL PROVISIONS

#### **Energy Conservation Requirements**

Energy Conservation - The contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

#### No Obligation by the Federal Government

The Purchaser and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this contract and shall not be subject to any obligations or liabilities to the Purchaser, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.

#### Suspension and Debarment

- This contract is a covered transaction for purposes of 49 CFR Part 29. As such, the contractor is required to verify that none of the contractor, its principals, as defined at 49 CFR 29.995, or affiliates, as defined at 49 CFR 29.905, are excluded or disqualified as defined at 49 CFR 29.940 and 29.945.
- The contractor is required to comply with 49 CFR 29, Subpart C and must include the requirement to comply with 49 CFR 29, Subpart C in any lower tier covered transaction it enters into.
- 3. By signing and submitting its bid or proposal, the bidder or proposer certifies as follows:
- 4. The certification in this clause is a material representation of fact relied upon by City of Madera. If it is later determined that the bidder or proposer knowingly rendered an erroneous certification, in addition to remedies available to City of Madera, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The bidder or proposer agrees to comply with the requirements of 49 CFR 29, Subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

#### Disadvantaged Business Enterprises

This contract is subject to the requirements of Title 49, Code of Federal Regulations, Part 26, Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs. The national goal for participation of Disadvantaged Business Enterprises (DBE) is 10%. The agency's overall goal for DBE participation is 0%. A separate contract goal has not been established for this procurement.

#### **Breaches and Dispute Resolution**

**Disputes** - Disputes arising in the performance of this Contract which are not resolved by agreement of the parties shall be decided in writing by the authorized representative of the City's Project Manager. This decision shall be final and conclusive unless within [ten (10)] days from the date of receipt of its copy, the Vendor mails or otherwise furnishes a written appeal to the Project Manager. In connection with any such appeal, the Vendor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of the Project Manager shall be binding upon the Vendor and the Vendor shall abide be the decision.

**Performance During Dispute** - Unless otherwise directed by City, Vendor shall continue performance under this Contract while matters in dispute are being resolved.

Claims for Damages - Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the party or of any of his employees, agents or others for whose acts he is legally liable, a claim for damages therefor shall be made in writing to such other party within a reasonable time after the first observance of such injury of damage.

Remedies - Unless this contract provides otherwise, all claims, counterclaims, disputes and other matters in question between the City and the Vendor arising out of or relating to this agreement or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State in which the City is located.

Rights and Remedies - The duties and obligations imposed by the Contract and incorporated documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by the City or Vendor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

#### Non-Collusion Affidavit to be Executed by Bidder and Submitted with Bid

The undersigned [Contractor] certifies, to the best of his or her knowledge and belief, that:

- 1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- 2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form--LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, et seq .)]
- The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbylng Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

[Note: Pursuant to 31 U.S.C. § 1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such expenditure or failure.]

Equipment, Inc

The Contractor, Municipal Maintenance, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. A 3801, et seq., apply to this certification and disclosure,

James Wheeler, General Manager

Name and Title of Contractor's Authorized Official

12-3-18

Date

# NONLOBBYING CERTIFICATION FOR FEDERAL-AID CONTRACTS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- (I) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in conformance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

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# CITY OF MADERA BID PROPOSAL 8 CUBIC YARD CLEAN DIESEL REGENERATIVE AIR SWEEPER RFP #201819-01 Federal Aid Project CMLNI-5157(105)

Bidder hereby proposes to deliver to the City of Madera, 1030 South Gateway Drive, Madera, California, new equipment in accordance with the published specifications for the following prices.

MANUFACTURER Schwarz	ze / Freightliner	MODEL_A7	Fornado / M2
Purchase Price			\$ 218,304.60
	Subtotal		\$_218,304.60_
	Applicable Taxes	8.25% Sales Tax CA Tire Fee	\$18,010.13 10.50
	TOTAL PURCHA	SE PRICE	\$ 236,325.23

## **ADDENDA**

This Proposal is submitted with respect to the changes to the contract included in addenda number/s

Addendum #1

(Fill in addenda numbers if addenda have been received and insert, in this Proposal, any Engineer's Estimate sheets that were received as part of the addenda.)

# CITY OF MADERA BID PROPOSAL AUTHORIZATION 8 CUBIC YARD CLEAN DIESEL REGENERATIVE AIR SWEEPER RFP #201819-01 FEDERAL AID PROJECT CMLNI-5157(105)

DATE	12-3-2018
COMPANY NAME	Municipal Maintenance Equipment, Inc.
STREET ADDRESS	4634 Mayhew Road
CITY / STATE / ZIP	Sacramento, CA 95827
PHONE NUMBER	916-922-1101
EMAIL	jwheeler@source-mme.com
PERSON PREPARING E	BID_James Wheeler
POSITION	General Manager
SIGNATURE	(Im)

(THE BIDDER'S EXECUTION ON THE SIGNATURE PORTION OF THIS PROPOSAL SHALL ALSO CONSTITUTE AN ENDORSEMENT AND EXECUTION OF THOSE CERTIFICATIONS WHICH ARE A PART OF THIS PROPOSAL)

#### **EXCEPTION TO SPECIFICATION**

Bidder shall be presumed to be in agreement with the terms and conditions of the RFP unless the Bidder takes specific exception to one or more of the conditions on this form.

Bidders are cautioned that by taking an exception they may be materially deviating from the RFP specification. If a Bidder materially deviates from the RFP specification, their proposal may be rejected. A material deviation is an exception to a specification which 1. affords the Bidder taking the exception a competitive advantage over other Bidders, or 2. Gives the City something significantly different than the City requested.

Bidder Name:	
Specification Description	Explanation of Exception
Page 6 - Other Cab Accessories: include 17" catwalk	17" Catwalk not available on the 164" WB required by specified Maximum 176" Wheelbase. If optional 184" Wheelbase would be allowed the Catwalk would be supplied at no additional cost.
Page 7 - Sweeper General ,Item 3: Access doors for Serviceing without tilting the Hopper.	Not available by design.
Page 7 - Blower, Item 1: Manual Tension not requiring repositioning of the engine	Tension on Belt does require manual adjustment repositioning the Auxiliary Engine.
Page 7 - Blower, Item 5: Blower not directly open to Centrifual Seperator	Not required by design.
Page 9 - Brooms, Item 9: Not to exceed 60"	63" Distance will be supplied
Page 12 - Water System, Item 11	Not required by design
Page 12 - Pneumatic System , Item 2	Not required by design
Page 14 - Paint, Item 1	Powder Coat not available at this time

By signing this form, I acknowledge that the above named Bidder accepts, without qualification, all terms and conditions stated in this RFP except those clearly outlined as exceptions above.

General Manager 12-3-18

Signature Title Date

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#### Detailed breakdown of costs:

Schwarze A7 Tornado Street Sweeper Body	\$138,939.60
Freightliner M2 Cab and Chassis	\$ 79,365.00
Sub-Total	\$218,304.60
8.25% Sales Tax	18,010.13
California Tire Fee	10.50
Total Purchase Price	\$236,325.23

## Sweeper Extended Warranties\*:

Standard – 1 Year or 1200 Hours	Standard, included in bid price
Silver – 2 Years or 2400 Hours, add	\$2,035.00
Gold - 3 Years or 3600 Hours, add	\$5,049.00
Platinum – 4 Years or 4800 Hours, add	<b>\$7,315.00</b>
Diamond - 5 Years or 6000 Hours, add	\$9,295.00

<sup>\*</sup>Chassis and auxiliary power are both separate and need to be purchased through their local dealers/distributors. Please let us know what you would like covered on an extended warranty and we will be happy to ask Freightliner and/or John Deere for pricing.

## SPECIFICATION PROPOSAL

t	Data Code	Description	Weight Front	Weight Rear	
Price Lev	/el		- L 100 3		- t/( ;
F	PRL-10M	M2 PRL-10M (EFF:02/11/15)			
Data Ver	sion		Tarbiyan	I The Author	
112567190000	DRL-001	SPECPRO21 DATA RELEASE VER 001			
and the second second	38.453 E.G. 1	ce/Driver Retention Package		1.00	
	055-998	NO INTERIOR CONVENIENCE PACKAGE	15.03		
	Configurati				
H THE STATE OF THE	001-172		5,759	3,503	
	001-172	M2 106 CONVENTIONAL CHASSIS 2019 MODEL YEAR SPECIFIED	9,739	3,503	
	002-004	SET BACK AXLE - TRUCK			
	019-002	STRAIGHT TRUCK PROVISION			
	003-012	PREP FOR LH PRIMARY STEERING LOCATION AND CUSTOMER SUPPLIED RH SIT-DOWN SECONDARY STEERING LOCATION WITH DUAL INSTRUMENT CLUSTER			
General	Service			172 473 World	
	AA1-002	TRUCK CONFIGURATION			
	AA6-001	DOMICILED, USA 50 STATES (INCLUDING CALIFORNIA AND CARB OPT-IN STATES)			
	A85-010	UTILITY/REPAIR/MAINTENANCE SERVICE			
	A84-1GM	GOVERNMENT BUSINESS SEGMENT			
	AA4-011	FIXED LOAD COMMODITY			
	AA5-002	TERRAIN/DUTY: 100% (ALL) OF THE TIME, IN TRANSIT, IS SPENT ON PAVED ROADS			
	AB1-008	MAXIMUM 8% EXPECTED GRADE			
	AB5-001	SMOOTH CONCRETE OR ASPHALT PAVEMENT - MOST SEVERE IN-TRANSIT (BETWEEN SITES) ROAD SURFACE			
	995-091	MEDIUM TRUCK WARRANTY			
	A66-99D	EXPECTED FRONT AXLE(S) LOAD: 12000.0 lbs			
	A68-99D	EXPECTED REAR DRIVE AXLE(S) LOAD : 21000.0 lbs			
	A63-99D	EXPECTED GROSS VEHICLE WEIGHT CAPACITY : 33000.0 lbs			
Truck S	ervice				
	AA3-022	STREET SWEEPER BODY			
	A88-99D	EXPECTED TRUCK BODY LENGTH: 11.75 ft			
	AF3-197	SCHWARZE INDUSTRIES			
	AF7-99D	EXPECTED BODY/PAYLOAD CG HEIGHT ABOVE FRAME "XX" INCHES: 32.0 in			U#37
Engine				# 25 m	
	101-21N	CUM B6.7 200 HP @ 2400 RPM, 2600 GOV, 520 LB/FT @ 1600 RPM			

Data Code	Description	Weight Front	Weight Rear	
Electronic Parame	ters			
79A-072	72 MPH ROAD SPEED LIMIT			
79B-000	CRUISE CONTROL SPEED LIMIT SAME AS ROAD SPEED LIMIT			
79K-015	PTO MODE ENGINE RPM LIMIT - 2100 RPM			
79P-004	PTO RPM WITH CRUISE SET SWITCH - 900 RPM			
79Q-004	PTO RPM WITH CRUISE RESUME SWITCH - 900 RPM			
798-001	PTO MODE CANCEL VEHICLE SPEED - 5 MPH			
79U-011	PTO GOVERNOR RAMP RATE - 1000 RPM PER SECOND			
79V-001	ENABLE REGENERATION IN PTO MODE			
80G-004	PTO MINIMUM RPM - 900			
80J-001	REGEN INHIBIT SPEED THRESHOLD - 0 MPH			
Engine Equipmen				1 2 21
99C-017	2016 ONBOARD DIAGNOSTICS/2010 EPA/CARB/FINAL GHG17 CONFIGURATION			
9 <b>9</b> D-009	2008 CARB EMISSION CERTIFICATION - CLEAN IDLE (INCLUDES 8X4 INCH LABEL ON LEFT SIDE OF HOOD)			
13E-001	STANDARD OIL PAN			
105-001	ENGINE MOUNTED OIL CHECK AND FILL			
133-004	ONE PIECE VALVE COVER			
014-1B5	SIDE OF HOOD AIR INTAKE WITH DONALDSON HIGH CAPACITY AIR CLEANER WITH SAFETY ELEMENT, FIREWALL MOUNTED			
124-1D7	DR 12V 160 AMP 28-SI QUADRAMOUNT PAD ALTERNATOR WITH REMOTE BATTERY VOLT SENSE			14
292-1D8	(2) ALLIANCE MODEL 1131, GROUP 31, 12 VOLT MAINTENANCE FREE 1900 CCA THREADED STUD BATTERIES, NON FCCC ONLY			
290-017	BATTERY BOX FRAME MOUNTED			
281-001	STANDARD BATTERY JUMPERS			
282-003	SINGLE BATTERY BOX FRAME MOUNTED LH SIDE BACK OF CAB			
291-017	WIRE GROUND RETURN FOR BATTERY CABLES WITH ADDITIONAL FRAME GROUND RETURN			
289-001	NON-POLISHED BATTERY BOX COVER			
293-058	POSITIVE LOAD DISCONNECT WITH CAB MOUNTED CONTROL SWITCH MOUNTED OUTBOARD DRIVER SEAT	8		
107-032	CUMMINS TURBOCHARGED 18.7 CFM AIR COMPRESSOR WITH INTERNAL SAFETY VALVE			
108-002	STANDARD MECHANICAL AIR COMPRESSOR GOVERNOR			
131-013	AIR COMPRESSOR DISCHARGE LINE			
152 <b>-041</b>	ELECTRONIC ENGINE INTEGRAL SHUTDOWN PROTECTION SYSTEM			

Data Code	Description	Weight Front	Welght Rear	
128-076	CUMMINS EXHAUST BRAKE INTEGRAL WITH VARIABLE GEOMETRY TURBO WITH ON/OFF DASH SWITCH	20		
016-101	RH INBOARD FRAME MOUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY WITH HORIZONTAL TAILPIPE	-50	-50	
28F-002	ENGINE AFTERTREATMENT DEVICE, AUTOMATIC OVER THE ROAD REGENERATION AND DASH MOUNTED REGENERATION REQUEST SWITCH			
239-001	STANDARD EXHAUST SYSTEM LENGTH			
237-052	RH STANDARD HORIZONTAL TAILPIPE			
23U-001	6 GALLON DIESEL EXHAUST FLUID TANK			
30N-003	100 PERCENT DIESEL EXHAUST FLUID FILL			
43X-002	LH MEDIUM DUTY STANDARD DIESEL EXHAUST FLUID TANK LOCATION			
<b>23Y-0</b> 01	STANDARD DIESEL EXHAUST FLUID PUMP MOUNTING			
43Y-001	STANDARD DIESEL EXHAUST FLUID TANK CAP			
273-035	HORTON HT650 FRONTAL AIR ON/OFF ENGINE FAN CLUTCH			
276-001	AUTOMATIC FAN CONTROL WITHOUT DASH SWITCH, NON ENGINE MOUNTED		8	
110-003	CUMMINS SPIN ON FUEL FILTER			
118-001	FULL FLOW OIL FILTER			
266-078	950 SQUARE INCH ALUMINUM RADIATOR			
103-036	ANTIFREEZE TO -34F, ETHYLENE GLYCOL PRE- CHARGED SCA HEAVY DUTY COOLANT			
171-007	GATES BLUE STRIPE COOLANT HOSES OR EQUIVALENT			
172-001	CONSTANT TENSION HOSE CLAMPS FOR COOLANT HOSES			
270-016	RADIATOR DRAIN VALVE			
168-002	LOWER RADIATOR GUARD			
138-010	PHILLIPS-TEMRO 750 WATT/115 VOLT BLOCK HEATER	4		
140-053	BLACK PLASTIC ENGINE HEATER RECEPTACLE MOUNTED UNDER LH DOOR			
134-001	ALUMINUM FLYWHEEL HOUSING			
132-004	ELECTRIC GRID AIR INTAKE WARMER			
155-058	DELCO 12V 38MT HD STARTER WITH INTEGRATED MAGNETIC SWITCH			
Transmission				
342-1MN	ALLISON 2500 RDS AUTOMATIC TRANSMISSION WITH PTO PROVISION			
Transmission Equ	lipment		A HOLD SHIP COME	
343-301	ALLISON VOCATIONAL PACKAGE 354 - AVAILABLE ON 1000/2000 PRODUCT FAMILIES WITH VOCATIONAL MODELS RDS, EVS, HS, MH, PTS AND SPS		Valled Hall School	

	Data Code	Description	Weight Front	Weight Rear		
	84B-012	ALLISON VOCATIONAL RATING FOR ON/OFF HIGHWAY APPLICATIONS AVAILABLE WITH ALL PRODUCT FAMILIES				
	84C-007	PRIMARY MODE GEARS, 6 FORWARD GEARS WITH MANUAL SELECTION FOR 3, 2 AND 1, AVAILABLE FOR 1000/2000 PRODUCT FAMILIES ONLY				
	84E-000	PRIMARY SHIFT SCHEDULE RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE				
	84F-000	SECONDARY SHIFT SCHEDULE RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE				
	84G-000	PRIMARY SHIFT SPEED RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE				
	84H-000	SECONDARY SHIFT SPEED RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE				
	84L-000	LOAD BASED SHIFT SCHEDULE AND VEHICLE ACCELERATION CONTROL RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED VOCATIONAL USAGE				
	84N-000	NEUTRAL AT STOP - DISABLED, FUELSENSE - DISABLED				
	84U-000	DRIVER SWITCH INPUT - DEFAULT - NO SWITCHES				
	84V-998	TCU-DIRECTION CHNG, NOT CONFIGURED				
	84M-998	TCU-PUMP MODE OPTION NOT CONFIGURED				
	85B-998	TCU-RANGE INDICATION NOT CONFIGURED				
	353-022	VEHICLE INTERFACE WIRING CONNECTOR WITHOUT BLUNT CUTS, AT BACK OF CAB				
	341-018	MAGNETIC PLUGS, ENGINE DRAIN, TRANSMISSION DRAIN, AXLE(S) FILL AND DRAIN				
	345-075	DASH MOUNTED T-HANDLE SHIFT CONTROL, PROVIDE 83 INCH CABLE FOR SUPPLIER RELOCATION OF T-HANDLE SHIFTER WITHOUT PARK BRAKE POSITION TO CENTER CONSOLE				
	97G-006	TRANSMISSION PROGNOSTICS - DISABLED (N/A) 2013, FOR USE IN 1000/2000 ONLY				
	370-015	WATER TO OIL TRANSMISSION COOLER, IN RADIATOR END TANK				
	346-001	TRANSMISSION OIL CHECK AND FILL				
	35T-001	SYNTHETIC TRANSMISSION FLUID (TES-295 COMPLIANT)				
Front A	Axle and Equi	Ipment 1990 - 1990				
	400-1A6	DETROIT DA-F-12.0-3 12,000# FF1 71.5 KPI/3.74 DROP SINGLE FRONT AXLE	A The second process	4 2 211	1 - 1 - Wi	
	402-020	MERITOR 15X4 Q+ CAM FRONT BRAKES				
	403-002	NON-ASBESTOS FRONT BRAKE LINING				
	419-023	CONMET CAST IRON FRONT BRAKE DRUMS				
	427-001	FRONT BRAKE DUST SHIELDS	5	5		
	409-006	FRONT OIL SEALS				

Data Code	Description	Welght Front	Weight Rear	
408-001	VENTED FRONT HUB CAPS WITH WINDOW, CENTER AND SIDE PLUGS - OIL			
416-022	STANDARD SPINDLE NUTS FOR ALL AXLES			
405-003	HALDEX AUTOMATIC FRONT SLACK ADJUSTERS			
536-050	TRW THP-60 POWER STEERING			
539-003	POWER STEERING PUMP			
534-015	2 QUART SEE THROUGH POWER STEERING RESERVOIR			
40T-001	ORGANIC SAE 80/90 FRONT AXLE LUBE			
ront Suspension				
620-1F0	12,000# DUAL TAPERLEAF FRONT SUSPENSION	42		
619-005	MAINTENANCE FREE RUBBER BUSHINGS - FRONT SUSPENSION			
62H-998	NO FRONT SUSPENSION SPRING BRACKET OPTIONS			
410-001	FRONT SHOCK ABSORBERS			
Rear Axle and Equ	pment	ily in the same		
420-1N0	MS-21-14X 21,000# R-SERIES SINGLE REAR AXLE		10	
421-643	6.43 REAR AXLE RATIO			
424-001	IRON REAR AXLE CARRIER WITH STANDARD AXLE HOUSING			
386-073	MXL 17T MERITOR EXTENDED LUBE MAIN DRIVELINE WITH HALF ROUND YOKES	2		
393-998	NO DRIVELINE GUARD			
423-019	MERITOR 16.5X8.62 Q+ CAST SPIDER CAM REAR BRAKES, DOUBLE ANCHOR, FABRICATED SHOES			
433-002	NON-ASBESTOS REAR BRAKE LINING			
434-012	BRAKE CAMS AND CHAMBERS ON REAR SIDE OF DRIVE AXLE(S)			
451-023	CONMET CAST IRON REAR BRAKE DRUMS			
425-002	REAR BRAKE DUST SHIELDS			
440-006	REAR OIL SEALS			
426-100	WABCO TRISTOP D LONGSTROKE 1-DRIVE AXLE SPRING PARKING CHAMBERS			
428-002	MERITOR AUTOMATIC REAR SLACK ADJUSTERS			
41T-001	ORGANIC SAE 80/90 REAR AXLE LUBE			
Rear Suspension				
622-003	23,000# FLAT LEAF SPRING REAR SUSPENSION WITH HELPER AND RADIUS ROD		120	
621-001	SPRING SUSPENSION - NO AXLE SPACERS			
431-001	STANDARD AXLE SEATS IN AXLE CLAMP GROUP			
623-005	FORE/AFT CONTROL RODS			
Brake System				
018-002	AIR BRAKE PACKAGE			

Data Code	Description	Weight Front	Weight Rear
490-100	WABCO 4S/4M ABS WITHOUT TRACTION CONTROL		
871-001	REINFORCED NYLON, FABRIC BRAID AND WIRE BRAID CHASSIS AIR LINES		
904-001	FIBER BRAID PARKING BRAKE HOSE		
412-001	STANDARD BRAKE SYSTEM VALVES		
46D-002	STANDARD AIR SYSTEM PRESSURE PROTECTION SYSTEM		
413-002	STD U.S. FRONT BRAKE VALVE		
432-003	RELAY VALVE WITH 5-8 PSI CRACK PRESSURE, NO REAR PROPORTIONING VALVE		
480-009	BW AD-9 BRAKE LINE AIR DRYER WITH HEATER	20	
479-012	AIR DRYER MOUNTED UNDER HOOD		
460-008	STEEL AIR BRAKE RESERVOIRS MOUNTED INSIDE RAIL		
607-001	CLEAR FRAME RAILS FROM BACK OF CAB TO FRONT REAR SUSPENSION BRACKET, BOTH RAILS OUTBOARD		
477-004	PULL CABLES ON ALL AIR RESERVOIR(S)		
<b>Trailer Connections</b>			
335-004	UPGRADED CHASSIS MULTIPLEXING UNIT		
32A-002	UPGRADED BULKHEAD MULTIPLEXING UNIT		
30L-998	NO HIGH CURRENT TRAILER/BODY CABLE		
Wheelbase & Frame			
545-417	4175MM (164 INCH) WHEELBASE		
546-092	11/32X3-1/2X10-15/16 INCH STEEL FRAME (8.73MMX277.8/0.344X10.94 INCH) 80KSI	-40	130
552-018	1625MM (64 INCH) REAR FRAME OVERHANG		
55W-006	FRAME OVERHANG RANGE: 61 INCH TO 70 INCH		
AC8-99D	CALC'D BACK OF CAB TO REAR SUSP C/L (CA): 98.45 in		
AE8-99D	CALCULATED EFFECTIVE BACK OF CAB TO REAR SUSPENSION C/L (CA): 95.45 in		
AE4-99D	CALC'D FRAME LENGTH - OVERALL: 257.39		
AM6-99D	CALC'D SPACE AVAILABLE FOR DECKPLATE : 98.45 in		
FSS-0LH	CALCULATED FRAME SPACE LH SIDE: 83.46 in		
FSS-0RH	CALCULATED FRAME SPACE RH SIDE: 83.29 in		
553-001	SQUARE END OF FRAME		
550-001	FRONT CLOSING CROSSMEMBER		
55 <b>9-0</b> 01	STANDARD WEIGHT ENGINE CROSSMEMBER		
562-001	STANDARD MIDSHIP #1 CROSSMEMBER(S)		
572-001	STANDARD REARMOST CROSSMEMBER		
565-001	STANDARD SUSPENSION CROSSMEMBER		
Chassis Equipment			
556-1AN	THREE-PIECE 14 INCH STEEL CENTER BUMPER WITH FLEXIBLE PLASTIC ENDS		
558-001	FRONT TOW HOOKS - FRAME MOUNTED	15	

Data Code	Description	Weight Front	Weight Rear	
574-001	BUMPER MOUNTING FOR SINGLE LICENSE PLATE			-
586-024	FENDER AND FRONT OF HOOD MOUNTED FRONT MUDFLAPS			
551-007	GRADE 8 THREADED HEX HEADED FRAME FASTENERS			
489-998	NO TIRE PRESSURE CONTROL/SENSOR			
Fuel Tanks				
204-215	50 GALLON/189 LITER SHORT RECTANGULAR ALUMINUM FUEL TANK - LH	20		
218-005	RECTANGULAR FUEL TANK(S)			
215-005	PLAIN ALUMINUM/PAINTED STEEL FUEL/HYDRAULIC TANK(S) WITH PAINTED BANDS			
212-007	FUEL TANK(S) FORWARD			
664-001	PLAIN STEP FINISH			
205-001	FUEL TANK CAP(S)			
122-1J2	DETROIT FUELWATER SEPARATOR WITH WATER IN FUEL SENSOR AND HAND PRIMER	-5		
216-020	EQUIFLO INBOARD FUEL SYSTEM			
202-016	HIGH TEMPERATURE REINFORCED NYLON FUEL LINE			
Tires				
093-1V4	CONTINENTAL HSR2 11R22.5 14 PLY RADIAL FRONT TIRE	16		
094-1V4	CONTINENTAL HSR2 11R22.5 14 PLY RADIAL REAR TIRES		32	
Hubs		e Ultra		
418-060	CONMET PRESET PLUS PREMIUM IRON FRONT HUBS	-		
450-060	CONMET PRESET PLUS PREMIUM IRON REAR HUBS			
Wheels		F-15-17		¥Ţ
502-657	ACCURIDE 51408 ACCU-LITE 22,5X8.25 10-HUB PILOT 6.16 INSET 2-HAND STEEL DISC FRONT WHEELS			
505-657	ACCURIDE 51408 ACCU-LITE 22.5X8.25 10-HUB PILOT 2-HAND STEEL DISC REAR WHEELS			
50W-998	NO RIMWHEEL TIRE PRESSURE SENSOR			
496-011	FRONT WHEEL MOUNTING NUTS			
497-011	REAR WHEEL MOUNTING NUTS			
Cab Exterior		a La Fill (1987)		
829-071	106 INCH BBC FLAT ROOF ALUMINUM CONVENTIONAL CAB			
650-009	RUBBER CAB MOUNTS			
678-001	LH AND RH GRAB HANDLES			
646-009	PAINTED PLASTIC GRILLE			
65X-001	ARGENT SILVER HOOD MOUNTED AIR INTAKE GRILLE			

Data Code	Description	Weight Front	Weight Rear	
644-004	FIBERGLASS HOOD			
690-016	CAB FLOOR, TOE BOARD AND FIREWALL HEAT SHIELD	5		
727-1 <b>AF</b>	SINGLE 14 INCH ROUND HADLEY AIR HORN UNDER LH DECK	4		
726-002	DUAL ELECTRIC HORNS			
728-001	SINGLE HORN SHIELD			
657-001	DOOR LOCKS AND IGNITION SWITCH KEYED THE SAME			
575-001	REAR LICENSE PLATE MOUNT END OF FRAME			
312-043	INTEGRAL HEADLIGHT/MARKER ASSEMBLY			
302-047	LED AERODYNAMIC MARKER LIGHTS			
311-001	DAYTIME RUNNING LIGHTS			
294-046	OMIT STOP/TAIL/BACKUP LIGHTS AND PROVIDE WIRING WITH SEPARATE STOP/TURN WIRES TO 4 FEET BEYOND END OF FRAME		-5	
300-015	STANDARD FRONT TURN SIGNAL LAMPS			
744-1BC	DUAL WEST COAST BRIGHT FINISH HEATED MIRRORS WITH LH AND RH REMOTE			
797-001	DOOR MOUNTED MIRRORS			
796-001	102 INCH EQUIPMENT WIDTH			
743-204	LH AND RH 8 INCH BRIGHT FINISH CONVEX MIRRORS MOUNTED UNDER PRIMARY MIRRORS			
74B-080	RH AND LH 8 INCH STAINLESS STEEL FENDER MOUNTED CONVEX MIRRORS WITH TRIPOD BRACKETS	8		
729-001	STANDARD SIDE/REAR REFLECTORS			
677-016	DUAL LEVEL CAB ENTRY STEPS ON BOTH SIDES			
768-043	63X14 INCH TINTED REAR WINDOW			
661-003	TINTED DOOR GLASS LH AND RH WITH TINTED NON-OPERATING WING WINDOWS			
654-027	RH AND LH ELECTRIC POWERED WINDOWS, PASSENGER SWITCHES ON DOOR(S)	4		
663-013	TINTED WINDSHIELD			
659-019	2 GALLON WINDSHIELD WASHER RESERVOIR WITHOUT FLUID LEVEL INDICATOR, FRAME MOUNTED			
Cab Interior	The state of the s	THE TOP		
707-1AK	OPAL GRAY VINYL INTERIOR			VIII 12 12 12 13 14 15
706-013	MOLDED PLASTIC DOOR PANEL			
708-013	MOLDED PLASTIC DOOR PANEL			
772-006	BLACK MATS WITH SINGLE INSULATION			
785-001	DASH MOUNTED ASH TRAYS AND LIGHTER			
691-008	FORWARD ROOF MOUNTED CONSOLE WITH UPPER STORAGE COMPARTMENTS WITHOUT NETTING			
694-010	IN DASH STORAGE BIN			
742-007	(2) CUP HOLDERS LH AND RH DASH			

	Data Code	Description	Weight Front	Welght Rear
	680-006	GRAY/CHARCOAL FLAT DASH	10	
	700-002	HEATER, DEFROSTER AND AIR CONDITIONER		
	701-001	STANDARD HVAC DUCTING		
	703-005	MAIN HVAC CONTROLS WITH RECIRCULATION SWITCH		
	170-015	STANDARD HEATER PLUMBING		
	130-033	DENSO HEAVY DUTY AIR CONDITIONER COMPRESSOR		
	702-002	BINARY CONTROL, R-134A		
	739-034	PREMIUM INSULATION		
	285-013	SOLID-STATE CIRCUIT PROTECTION AND FUSES		
	280-007	12V NEGATIVE GROUND ELECTRICAL SYSTEM		
	324-014	DOME LIGHT WITH 3-WAY SWITCH ACTIVATED BY LH AND RH DOORS		
	655-005	LH AND RH ELECTRIC DOOR LOCKS		
	756-1J3	BASIC HIGH BACK AIR SUSPENSION DRIVER SEAT WITH MECHANICAL LUMBAR AND INTEGRATED CUSHION EXTENSION	30	
	760-1J3	BASIC HIGH BACK AIR SUSPENSION PASSENGER SEAT WITH MECHANICAL LUMBAR AND INTEGRATED CUSHION EXTENSION	25	10
	759-005	DUAL DRIVER AND PASSENGER SEAT ARMRESTS	8	
	711-004	LH AND RH INTEGRAL DOOR PANEL ARMRESTS		
	758-017	GRAY CORDURA PLUS CLOTH DRIVER SEAT COVER		
	761-017	GRAY CORDURA PLUS CLOTH PASSENGER SEAT COVER		
	763-101	BLACK SEAT BELTS		
	532-027	ADJUSTABLE STEERING COLUMN, SUPPLIER CONVERSION TO LH AND RH ADJUSTABLE TILT STEERING COLUMNS	10	
	540-015	4-SPOKE 18 INCH (450MM) STEERING WHEEL		
	765-002	DRIVER AND PASSENGER INTERIOR SUN VISORS		
nstr	ruments & Cor	ntrols and the same of the sam		
1 1 1 1 1 1 1 1 1	732-004	GRAY DRIVER INSTRUMENT PANEL		
	734-004	GRAY CENTER INSTRUMENT PANEL		
	870-001	BLACK GAUGE BEZELS		
	486-001	LOW AIR PRESSURE INDICATOR LIGHT AND AUDIBLE ALARM		
	840-002	2 INCH PRIMARY AND SECONDARY AIR PRESSURE GAUGES		
	198-002	INTAKE MOUNTED AIR RESTRICTION INDICATOR WITH GRADUATIONS		
	149-013	ELECTRONIC CRUISE CONTROL WITH SWITCHES IN LH SWITCH PANEL		
	156-007	KEY OPERATED IGNITION SWITCH AND INTEGRAL START POSITION; 4 POSITION OFF/RUN/START/ACCESSORY		

	Data Code	Description	Weight Front	Weight Rear
	311-042	ICU3S, 132X48 DISPLAY WITH DIAGNOSTICS, 28 LED WARNING LAMPS AND DATA LINKED		
,	160-038	HEAVY DUTY ONBOARD DIAGNOSTICS INTERFACE CONNECTOR LOCATED BELOW LH DASH		
	844-001	2 INCH ELECTRIC FUEL GAUGE		
	148-003	PROGRAMMABLE RPM CONTROL - ELECTRONIC ENGINE		
	856-001	ELECTRICAL ENGINE COOLANT TEMPERATURE GAUGE		
	864-001	2 INCH TRANSMISSION OIL TEMPERATURE GAUGE		
	830-017	ENGINE AND TRIP HOUR METERS INTEGRAL WITHIN DRIVER DISPLAY		
	73B-998	NO LANE DEPARTURE WARNING SYSTEM		
	852-002	ELECTRIC ENGINE OIL PRESSURE GAUGE		
	746-1B4	AM/FMWB WORLD TUNER RADIO WITH CD PLAYER, BLUETOOTH, IPOD INTERFACE, USB AND AUXILIARY INPUTS, J1939	10	
	747-001	DASH MOUNTED RADIO		
	750-002	(2) RADIO SPEAKERS IN CAB		
	753-001	AM/FM ANTENNA MOUNTED ON FORWARD LH ROOF		
	810-027	ELECTRONIC MPH SPEEDOMETER WITH SECONDARY KPH SCALE, WITHOUT ODOMETER		
	817-001	STANDARD VEHICLE SPEED SENSOR		
	812-001	ELECTRONIC 3000 RPM TACHOMETER		
	813-998	NO VEHICLE PERFORMANCE MONITOR	-5	
	8D1-998	NO DETROIT CONNECT SERVICES SELECTED		
	8Z1-998	NO ZONAR SERVICES SELECTED		
	162-011	IDLE LIMITER, ELECTRONIC ENGINE		
	836-015	DIGITAL VOLTAGE DISPLAY INTEGRAL WITH DRIVER DISPLAY		
	660-008	SINGLE ELECTRIC WINDSHIELD WIPER MOTOR WITH DELAY		
	304-001	MARKER LIGHT SWITCH INTEGRAL WITH HEADLIGHT SWITCH		
	882-009	ONE VALVE PARKING BRAKE SYSTEM WITH WARNING INDICATOR		
	299-013	SELF CANCELING TURN SIGNAL SWITCH WITH DIMMER, WASHERWIPER AND HAZARD IN HANDLE		
	298-039	INTEGRAL ELECTRONIC TURN SIGNAL FLASHER WITH HAZARD LAMPS OVERRIDING STOP LAMPS		
	869-998	NO MISCELLANEOUS GAUGES		
Design			FIG. Breat	
	065-000	PAINT: ONE SOLID COLOR		hedr Trains made
Color	egizdi, x <sub>1</sub> , 2			HETHER REGIONS TO
90,01	000 250	CAR COLOR A MODERA MULTIPLE DE LES	La Alive	Statistics - View on the
	980-3F6	CAB COLOR A: N0006EA WHITE ELITE SS		

Data Code	Description	Weight Front	Weight Rear	
986-020	BLACK, HIGH SOLIDS POLYURETHANE CHASSIS PAINT			
98K-998	NO FUEL TANK CABINET PAINT			
962-972	POWDER WHITE (N0006EA) FRONT WHEELS/RIMS (PKWHT21, TKWHT21, W, TW)			
966-972	POWDER WHITE (N0006EA) REAR WHEELS/RIMS (PKWHT21, TKWHT21, W, TW)			
964-6Z7	BUMPER PAINT: FP24812 ARGENT SILVER DUPONT FLEX			
963-003	STANDARD E COAT/UNDERCOATING			
Certification / Com	pliance			
996-001	U.S. FMVSS CERTIFICATION, EXCEPT SALES CABS AND GLIDER KITS			
Secondary Factor	y Options			
99B-012	SHIP TO THIRD PARTY (CHARLOTTE, NC) PRIOR TO DELIVERY			
Sales Programs				
	NO SALES PROGRAMS HAVE BEEN SELECTED			

## TOTAL VEHICLE SUMMARY

Weight Summary	A THE STATE OF THE STATE		
	Weight	Weight	Total
Factory Weight <sup>+</sup>	Front 5913 lbs	Rear 3750 lbs	Weight 9663 lbs
Dealer Installed Options	0 lbs	0 lbs	0 lbs
Total Weight <sup>+</sup>	5913 lbs	3750 lbs	9663 lbs

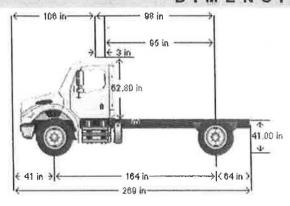
## **Extended Warranty**

WAG-010 TOWING: 1 YEAR/UNLIMITED MILES/KM EXTENDED TOWING COVERAGE \$550 CAP FEX APPLIES

	Weight	Weight	
	Front	Rear	
FONTAINE DUAL STEERING AND DEF TANK RELOCATION	0	0	
Total Dealer Installed Options	0 lbs	0 lbs	

(+) Weights shown are estimates only.
If weight is critical, contact Customer Application Engineering.

## DIMENSIONS



## VEHICLE SPECIFICATIONS SUMMARY - DIMENSIONS

Aodel :	
Rear Frame Overhang (552)	
Fifth Wheel (578)	NO FIFTH WHEEL
Mounting Location (577)	NO FIFTH WHEEL LOCATION
	0
Maximum Rearward Position (in)	0
Amount of Slide Travel (in)	0
Slide Increment (in)	
Desired Slide Position (in)	0.0
	106 INCH BBC FLAT ROOF ALUMINUM CONVENTIONAL CAB
Sleeper (682)	NO SLEEPER BOX/SLEEPERCAB
Exhaust System (016)RH INBOARD FRAM	ME MOUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY WITH

TABLE SUMMARY - DIMENSIONS

Dimensions	Inches
Bumper to Back of Cab (BBC)	105.3
Bumper to Centerline of Front Axle (BA)	40.7
Min. Cab to Body Clearance (CB)	3.0
Back of Cab to Centerline of Rear Axle(s) (CA)	98.4
Effective Back of Cab to Centerline of Rear Axie(s) (Effective CA)	95.4
Back of Cab Protrusions (Exhaustrintake) (CP)	0.0
Back of Cab Protrusions (Side Extenders/Trim Tab) (CP)	0.0
Back of Cab Protrusions (CNG Tank)	0.0
Back of Cab Clearance (CL)	3.0
Back of Cab to End of Frame	162.4
Cab Height (CH)	62.8
Wheelbase (WB)	164.0
Frame Overhang (OH)	64.0
Overall Length (OAL)	268.7
Rear Axle Spacing	0.0
Unladen Frame Height at Centerline of Rear Ade	41.0

Performance calculations are estimates only. If performance calculations are critical, please contact Customer Application Engineering.

## FRAME RBM

## VEHICLE SPECIFICATIONS SUMMARY - FRAME RBM

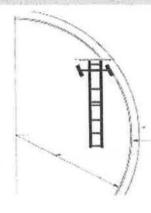
Wheelbase (545)	VHEELBASE
Frame Rails (546)	l) 80KSI(546)
Yield Strength (psi)	80000
Section Modulus (per rail) (cu in)	
RBM (per rail) (lbf-in)	1358400
Inner Frame Reinforcement (547)	
Outer Frame Reinforcement (548)	

## TABLE SUMMARY - FRAME RBM

Hem	Description / Value		
Wheelbase	4175MM (164 INCH) WHEELBASE		
Frame	11/32X3-1/2X10-15/16 INCH STEEL FRAME (8.73MMX277.8/0.344X10.94 INCH) 80KSI		
Inner Frame Reinforcement	NO INNER FRAME REINFORCEMENT		
Outer Frame Reninforcement	NO OUTER FRAME REINFORCEMENT		
Yield Strength (psi)	80000		
Section Modulus - per rail (cu. in.)	16.98		
Frame RBM - per rail (lbf-in)	1358400		

Performance calculations are estimates only. If performance calculations are critical, please contact Customer Application Engineering.

## TURNING RADIUS



Turning radius graphic and data provided for general estimate purposes only. For specific figures regarding your configuration, please contact your CAE representative.

	Left Turn	Right Turn	Tolerance
VVall to VVall Diameter (ft)	39.1	39.1	+/- 3.0
Curb to Curb Diameter (ft)	37.2	37.2	+/- 3.0
Turning Radius (ft)	18.1	18.1	+/- 1.5

#### **VEHICLE SPECIFICATIONS SUMMARY - TURNING RADIUS**

Model	
	106 INCH BBC FLAT ROOF ALUMINUM CONVENTIONAL CAB
	4175MM (164 INCH) WHEELBASE
Front Tires (093)	
Front Axle (400)	DETROIT DA-F-12.0-3 12,000# FF1 71.5 KPI/3.74 DROP SINGLE FRONT AXLE
Kingpin Intersection (in)	71.5
	THREE-PIECE 14 INCH STEEL CENTER BUMPER WITH FLEXIBLE PLASTIC ENDS
Width (in)	93.5
Bumper Miter to Front Axle (in)	21,458
	FOR LH PRIMARY STEERING LOCATION AND CUSTOMER SUPPLIED RH SIT-DOWN
SECONDARY STEERING LOCATION W	
Steering Gear (536)	TRW THP-60 POWER STEERING
	NONE
	NONE
Rear Axle (420)	
Axle Spacing (624)	NO AXLE SPACING

Performance calculations are estimates only. If performance calculations are critical, please contact Customer Application Engineering.

	THE REAL PROPERTY.
SCH	WARZE
Poss	INDUSTRIES

## SCHWARZE SWEEPER 12 MONTH LIMITED WARRANTY

100.14 (8)					1
UNIT MODEL	UNIT SERIAL NUMBER	E	NGINE MODEL	ENGINE SERIAL NUMBER	ORDER NUMBER
CHASSIS MAKE	CHASSIS MODEL	YEAR	VEHICLE IDENTIFICAT	TON NUMBER	

Schwarze Industries, seller, provides warranty coverage to the original purchaser for all new equipment manufactured by Schwarze Industries, Inc. Schwarze-built sweepers are warranted to be free from defects in materials and/or workmanship under normal operating conditions, and when used in a proper application, for a period of twelve (12) consecutive months from the date placed into service, or twelve hundred (1200) hours of operation, whichever occurs first, provided all recommended maintenance is performed as scheduled.

WHAT WE WILL DO: Seller's sole obligation with respect to this Warranty shall be to replace or repair, at Seller's option, any part, parts or workmanship which may prove to be defective during the Warranty Period. Warranty work shall be performed at Seller's home office (1055 Jordan Road, N.E., Huntsville, Alabama 35811) or, at Seller's sole option, at the Schwarze authorized Dealer nearest to the purchaser's location.

WHAT IS NOT COVERED: This warranty shall not apply to damage or defects caused by negligence, carelessness, unauthorized repair work, use of unauthorized repair parts or to damage due to accident, misuse or abuse on the part of the purchaser or his or her or its servants, agents, representatives or employees, or to damage caused by acts of God. This Warranty shall not apply to routine maintenance, repair and adjustments, or to the wear parts, including but not limited to the following:

A-Series & S-Series Sweepers: flaps, drive belt, hoses, broom bristles, seals, low arms. throttle cable, fan housing liner, door trim, filters, light bulbs, tires, water nozzles, spray tips, screens, springs, switches, batteries, mud flaps and mirrors.

M-Series Sweepers: brooms, rubber sprockets, bearings, flaps, drive couplings, drag brush, caster wheels, light bulbs, tires, water nozzles, spray tips, belts, control cables, filters, switches, batteries, mud flaps and mirrors.

#### WARRANTY DISCLAIMER

Except for the warranties stated herein, THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SELLER SHALL NOT UNDER ANY CIRCUMSTANCES BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES SUCH AS, BUT NOT LIMITED TO, DAMAGE OR LOSS OF OTHER PROPERTY OR EQUIPMENT, LOSS OF PROFITS OR REVENUE, COST OF CAPITAL, COST OF PURCHASE OR REPLACEMENT GOODS, OR CLAIMS OF CUSTOMERS OF PURCHASER FOR SERVICE INTERRUPTIONS.

The remedies of the Purchaser set forth herein are exclusive, and the liability of Seller with respect to the manufacture, sale, delivery, resale, installation or use of any goods covered by or furnished under this Limited Warranty shall not, in any event, exceed the price of the goods upon which such liability is based. Any parts or accessories not manufactured by Schwarze are warranted only to the extent that the manufacturer's Warranty may be passed on to Purchaser, and such parts and accessories are not subject to this Warranty or to any other warranty, expressed or implied. The limitations of remedies to repair or replacement and the disclaimer of all special, incidental or consequential damages are intended to be separate and independent limitations of Seller's liability.

HOW TO OBTAIN SERVICE: If a problem that is covered by this Warranty develops with this Schwarze Sweeper during the Warranty Period, PURCHASER MUST NOTIFY THE SCHWARZE IN WRITING PRIOR TO THE EXPIRATION OF THE WARRANTY PERIOD OR WAIVE ALL CLAIMS, Purchaser must then deliver the unit, at Purchaser's expense and risk of loss during transport, to Seller's Huntsville, Alabama address, or to the nearest Schwarze Industries, Inc. authorized Dealer. In lieu of presenting the unit for service, parts covered under this Warranty will be shipped at Purchaser's expense if the total weight of the parts is less than 25 lbs. If the Purchaser agrees to pay \$10.00 over the normal freight charges, parts covered under this 12 Month Warranty will be shipped via air freight for next-day delivery, when available. Those parts not shipped on an expedited basis, or weighing more than 25 lbs, will be shipped by Seller's normal methods (U.P.S. ground, common carrier, etc.) at the Purchaser's expense unless Purchaser specifies differently, and agrees to be liable for any additional shipping and freight charges. All parts covered under Warranty will be shipped C.O.D. unless the Purchaser has previously established an account with Schwarze and provided that such account is not past due and that the Purchaser has not exceeded his/ her/its credit limit. Warranty credit will be available only on parts which are received by Seller within thirty (30) days of the Purchaser's receipt, and if the replacement or repaired part is returned freight prepaid, and only if the component manufacturer approves it for warranty replacement. In NO case will credit be available for defective parts received by Seller later than (30) days after Schwarze ships the replacement part.

TRANSFER OF WARRANTY: This Warranty is nontransferable without prior approval, in writing, by Schwarze Industries, Ind., 1055 Jordan Road, N.E., Huntsville, Alabama, 35811. To be considered, any Transfer request must include the following information.

- 1. The vehicle identification number of the chassis.
- 4. Name and address of the current registered owner.

- 2. Model and serial number of the sweeper
- Original purchaser's name and address
- 5. Name and address of the party to whom the Warranty is requested to be reassigned.

No employee or agent of Seller is authorized to alter or extend this Warranty or to assume any other liability on Seller's behalf. Any alterations or extensions shall not be valid or binding upon Schwarze. To get further help, notify the Schwarze Warranty Department by calling 1-800-879-7933, and identify yourself as a bearer of the Schwarze Sweeper 30 Day Limited Warranty.

#### SCHWARZE 5 YEAR HYDRAULIC COMPONENT LIMITED WARRANTY

Schwarze Industries, Inc. ("seller") provides warranty coverage to the original purchaser on Hydraulic Components (as defined below) for all new equipment sold and operated in the United States of America, manufactured by seller, and purchased from an authorized Schwarze dealer. The Hydraulic Components are warranted to be free from defects in materials and/or workmanship, under normal operating conditions, and when used in a proper application, for a period of 5 years from the date of retail sale to the original purchaser, or 6000 hrs of operation, whichever occurs first, provided all recommended maintenance is performed as scheduled.

Seller's sole obligation with respect to this Schwarze 5 Year Hydraulic Component Limited Warranty (the "Limited Warranty") shall be to replace or repair, at seller's sole option, any part, parts or workmanship which proves to be defective during the warranty period.

This Limited Warranty shall not apply unless purchaser uses OEM approved filters and has annual warranty inspections performed by an authorized Schwarze dealer. Failure to perform the annual inspections will result in forfeiture of the Limited Warranty and coverage will revert to the Schwarze Sweeper 12 Month Limited Warranty. Proof of purchase will be required to substantiate all warranty claims. All warranty work must be performed by an authorized Schwarze dealer. Any work done on or to the equipment by anyone other than an authorized Schwarze dealer, including the original purchaser, voids all provisions of this Limited Warranty except those provisions which limit seller's liability.

Hydraulic Components include hydraulic pumps, hydraulic motors, and fittings. This Limited Warranty does not cover cylinders, valves, hoses, filters, seals, reservoirs, or anything else other than the Hydraulic Components.

Warranty repairs and annual inspections shall be performed at the seller's home office (1055 Jordan Rd, NE Huntsville, AL. 35811) or, at the seller's sole option, at the Schwarze authorized dealer nearest to the purchaser's location. The cost of delivering the equipment for repairs and inspections shall be the responsibility of the original purchaser.

#### WARRANTY DISCLAIMER

Except for the warranties stated herein, THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SELLER SHALL NOT UNDER ANY CIRCUMSTANCES BE LIABLE FOR SPECIAL, INCIDENTALOR CONSEQUENTIAL SUCH AS, BUT NOT LIMITED TO, DAMAGE OR LOSS OF OTHER PROPERTY OR EQUIPMENT, LOSS OF PROFITS OR REVENUE, COST OF CAPITAL, COST OF PURCHASE OR REPLACEMENT GOODS, OR CLAIMS OF CUSTOMERS OF PURCHASER FOR SERVICE INTERRUPTIONS

This warranty is not transferable, without prior written approval by seller.



The People You Know. The Products You Trust.

Schwarze Industries, Inc. ("seller") provides lifetime protection against rust-through of the water tanks.

Freightliner (FTL)



Freightliner Medium Truck

Coverage <sup>1</sup>	- 2	
Description	Time <sup>2</sup>	Distance <sup>2</sup>
Basic Vehicle	2 Years	Unlimited
Battery	1 Year	100,000 mi/161 000 km
Brightwork	6 Months	Unlimited
Cab Corrosion/Perforation	5 Years	Unlimited
Cab Structure	5 Years	Unlimited
Corrosion	6 Months	Unlimited
Crossmembers	5 Years	Unlimited
Diesel Emission 2010 <sup>3</sup>	5 Years	100,000 mi/161 000 km
Frame Ralls	5 Years	Unlimited
GHG14 <sup>4</sup> (Light Heavy Duty Trucks)	5 Years	50,000 mi/80 500 km
GHG14 <sup>4</sup> (Medium Heavy Duty to Heavy Heavy Duty Trucks)	5 Years	100,000 mi/161 000 km
GHG14 <sup>4</sup> (Medium Heavy Duty to Heavy Heavy Duty Tractors)	5 Years	100,000 mi/161 000 km
GHG14 <sup>4</sup> Tire	2 Years	24,000 ml/38 400 km
Hybrid Transmission – Eaton <sup>5</sup>	3 Years	150,000 mi/240 000 km
Paint	1 Year	100,000 mi/161 000 km
Paint, Chassis	6 Months	Unlimited
Front Axle <sup>6</sup>	2 Years	Unlimited
Rear Axle	2 Years	Unlimited
Transfer Case	2 Years	Unlimited
Transmission <sup>5</sup>	2 Years	Unlimited
Detroit Front Axle <sup>6</sup> (File Direct)		
Post-Model Year 2011 <sup>7</sup>	2 Years	Unlimited
Post-Model Year 2011 <sup>6</sup>	4 Years	Unlimited
Detroit Rear Axle (File Direct)		
Post-Model Year 2011 <sup>7</sup>	2 Years	Unlimited
Post-Model Year 2011 <sup>6</sup>	4 Years	Unlimited
Detroit DT-12 Transmission <sup>5,8</sup> (File Direct)	5 Years	750,000 mi/1 200 000 km

Coverage may vary; check vehicle's actual warranty coverage online via OWL's Coverage Info/Check Coverage screen.

<sup>&</sup>lt;sup>2</sup>Time or distance, whichever comes first

<sup>&</sup>lt;sup>3</sup>Applies to vehicles equipped with EPA 2010 compliant diesel engines.

Applies to models 2013 and later domiciled in the United States, check actual warranty online via OWL's Coverage Info/Check Coverage screen for coverage listed as GHG14.

screen for coverage listed as GHG14...".

Customers will have only one (1) type of transmission coverage, depending on how the vehicle is spec'd.

Front axle coverage is also applicable to gliders.

<sup>&</sup>lt;sup>7</sup>Medium Duty – General Service: Warranty coverage is determined by Gross Combination Weight Rating, road surface, and vocation. Please see www.ddcsn.com for specific coverage details.

Medium Duty – General Service Plus: Warranty coverage is determined by Gross Combination Weight Rating, road surface, and vocation.
Please see www.ddcsn.com for specific coverage details.

<sup>&</sup>lt;sup>9</sup>Detroit Transmission: Warranty coverage is determined by Gross Combination Weight Rating, road surface, and vocation. Please see www.ddcsn.com for specific coverage details.

## Warranty Statement

#### 1.1 New Vehicle Coverage

The following section outlines Company standard warranty coverages for all Company vehicles, apparatus or chassis or cabs sold by Dalmler Trucks North America and domiciled in the USA (50 states and Washington, D.C.) and Canada. This information is also included in the Owner's Warranty Information Booklet.

See Warranty Coverage Descriptions for standard warranty coverages by make and model. Additional coverage may apply, verify actual coverages with your local dealership for specific vehicle warranty.

#### 1.2 New Vehicle Limited Warranty

Under this New Vehicle Limited Warranty ("Warranty"), Company warrants that each new vehicle will be free from defects in material and workmanship that occur under normal use within the applicable warranty period, subject to certain limitations and exclusions as specified in this document.

This limited warranty applies only to new vehicles sold by an authorized Daimler Trucks North America (DTNA) dealer or ordered directly from DTNA; vehicles sold at auction or as a result of repossession retain the warranty coverage from the original in-service date or factory invoice date if the vehicle has not been warranty registered.

Daimler Trucks North America LLC reserves the right to reduce or remove coverage on vehicles in salvage condition.

This Warranty covers all components and parts unless specifically covered by other warranties or otherwise excluded by this document.

#### 1.3 Limitations

This Warranty does not apply to vehicles that are sold or domiciled outside of the United States (50 states and Washington, D.C.) or Canada.

This Warranty does not apply to engines, Allison transmissions, tires, or other components or parts that are not manufactured by Company and that are warranted directly by their respective manufacturers. Progressive damage caused by these manufacturers' components to any other parts including, but not limited to, parts installed by Company is excluded from Company warranty coverage. With respect to the foregoing, Company makes no warranty whether express, implied, statutory or otherwise including, but not limited to, any warranty of merchantability or fitness for a particular purpose.

THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF ANY KIND WHETHER WRITTEN, ORAL, OR IMPLIED INCLUDING, BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY SPECIFICALLY EXCLUDES ANY OTHER

WARRANTIES OR CONDITIONS PROVIDED FOR BY LAW, WHETHER STATUTORY OR OTHERWISE.

COMPANY'S SOLE OBLIGATION UNDER THIS WARRANTY SHALL BE TO REPAIR OR REPLACE, IN COMPANY 'S SOLE DISCRETION, ANY DEFECTIVE COMPONENT OR PART. SUCH REPAIR OR REPLACEMENT SHALL BE WITHOUT COST TO PURCHASER WHEN PERFORMED WITHIN THE APPLICABLE WARRANTY PERIOD (TIME, DISTANCE, OR HOUR LIMIT, WHICHEVER OCCURS FIRST).

Purchaser must notify Company within the applicable warranty period, of any failure of the vehicle to comply with this Warranty and Purchaser must, at Purchaser's expense, promptly return the vehicle to an Authorized Service Facility for inspection and repair or replacement of any defect in material or workmanship occurring within the applicable warranty period. During New Vehicle coverage, warranty reimbursement will not be paid on repairs performed by customers on their own vehicles without a current Customer Performed Warranty Agreement (CPWA).

The vehicle must be maintained and serviced according to the prescribed schedules outlined in the Driver's/Operator's and Maintenance Manuals. Receipted bills and other evidence that required maintenance and service have been performed are required by Company as a condition of this Warranty.

After the Company's obligations under this Warranty expire, all liabilities of Company to Purchaser under this Warranty shall terminate. Repairs made under this Warranty do not constitute an extension of the original Warranty period for the vehicle or for any specific component or part.

To the extent that any provision of this Warranty contravenes the law of any jurisdiction, such provision shall be inapplicable in such jurisdiction, and the remainder of the warranty shall not be affected.

#### 1.4 Purchaser's Exclusive Remedy

THIS WARRANTY SHALL BE THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY AGAINST COMPANY, WHETHER IN CONTRACT, UNDER STATUTE (INCLUDING STATUTORY PROVISIONS AS TO CONDITIONS AS TO QUALITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF GOODS SUPPLIED PURSUANT TO THE CONTRACT OF SALE), WARRANTY, TORT, STRICT LIABILITY, OR ANY OTHER LEGAL THEORY.

#### 1.5 Limitation of Liability

COMPANY'S LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE COST TO REPAIR OR REPLACE, IN COMPANY'S SOLE DISCRETION, THE DEFECTIVE COMPONENT OR PART THAT IN NO EVENT SHALL EXCEED THE FAIR MARKET VALUE OF THE VEHICLE AT THE TIME THE DEFECT IS DISCOVERED.

IN NO EVENT SHALL COMPANY BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, INJURIES TO PERSONS OR DAMAGE

#### **PROFITS** TO PROPERTY. LOSS OF OR ANTICIPATED PROFITS, OR LOSS OF VEHICLE USE.

#### 1.6 Exclusions

The following components, parts, or conditions are specifically excluded from coverage under this Warranty.

#### AERODYNAMIC WHEEL COVERS

Aerodynamic wheel covers are excluded from coverage under this Warranty

#### AIR SPRINGS

Tolerance buildup can occur during the assembly process of the rear suspension and rear cab air springs, and can cause the springs to have the appearance of being crooked, misaligned or improperly installed. This tolerance buildup is not detrimental to the operation of the vehicle and will not have an effect on either the quality of the ride or the durability of the components or vehicle. Straightening of these springs is not covered under this Warranty.

ALIGHMENT OF AXLES/WHEELS/STEERING Each DTNA vehicle manufacturing plant uses an integrated alignment system to align axles and wheels and to center the steering wheel to Daimler Trucks North specifications. Realignment America LLC readjustment of these items, including steering stops and steering poppets, is not covered under warranty.

Any special alignment settings at the request of the Owner must be handled between the Dealer and Owner after delivery from factory. These special adjustments are not covered under Warranty.

#### **AXLE BREATHER VENTS**

During the vehicle manufacturing process, an oil run or drip stain may appear at the breather vent. Removing the vent, applying pipe sealant to the threaded vent fitting and re-installing the vent is unnecessary. Removing the axle breather vent and re-sealing the threaded fitting is not covered under this Warranty.

#### CAB INTERIOR COMPONENTS

The repair or replacement of cab interior components that are rendered unserviceable due to normal wear or abuse are not covered under this Warranty.

These components include, but are not limited to:

- Curtains
- Floor coverings (including floor mats)
- Painted trim components
- Steering wheel
- Steering wheel wrap
- Upholstery
- Window shades

#### CHROME SURFACES, ALUMINUM AND STAINLESS STEEL COMPONENTS

The following items ARE covered under this Warranty:

- Chrome peeling off in sheets
- Chrome cut at mounting bolts due to over-torque at the factory
- Bubbles in the chrome that are not caused by rock chips and/or general rust conditions
- Isolated rust along seams or welds

The following items are NOT covered under this Warranty:

- General rust, for example, rust on the unfinished backside of a bumper
- Dimpling at the mounting bolts
- Staining, bluing, and/or yellowing that can be
- cleaned with a quality cleaning-product
  Rust, pits, and/or nicks caused by road wash or road debris breaking the chrome surface
- Streaks/stains/corrosion caused by severe wash solutions or corrosive road salts/chemicals

Claims pertaining to failures of chrome surfaces, aluminum, and stainless steel components will not be processed unless a clear digital picture is provided that adequately shows the defect.

#### CLUTCH ADJUSTMENT

Clutch adjustments are normally required due to clutch wear and are considered normal maintenance. However, if the clutch adjustment is found to be outside of Company specifications during, or prior to, in-service of the vehicle, a warranty claim will be accepted on a onetime basis.

Claims for clutch adjustments will not be accepted unless the adjustment is found to be outside of Company specifications using the special clutch adjustment measuring tools provided by Company (e.g., adjusting the clutch to satisfy feel will not be accepted as warranty).

#### COMPETITION

Warranty will become void on any vehicle that is used in competition, including but not limited to:

- Racing
- Tractor pulls
- Other motor sports

#### CONSUMABLE PARTS

Parts that are subject to consumption during their normal service life and are routinely replaced during normal maintenance services are covered up to 15,000 miles (24 000km) for all Daimler Trucks North America LLC vehicles except for Thomas Built Bus (TBB) bodies and chassis. TBB consumable parts are covered up to 30 days from date of in-service.

#### These items are:

- Antennas
- Ashtrays
- Belts
- Brake Linings
- Cigarette lighter assembly
- Clutch brake
- Clutch linings
- Data logger batteries
- Desiccant cartridges
- Fire extinguishers
- Fluorescent ballast and tubes
- **Fuses**
- Gladhand
- Hosetennas
- Light bulbs
- Mattresses
- Mud flaps
- Mud flap mounting brackets
- Caps (radiator, surge, fuel tank)
- Receiver-dryer filter
- Trailer air hoses
- Trailer electrical cables

· Windshield washer nozzles

Wiper arms and blades (TBB makes - wiper blades only)

Consumable parts NOT covered under this Warranty include, but are not limited to, the following:

Filters (fuel, air, oil, water)

- Fluids (unless low due to a warrantable failure)
- Lubricant

#### CORROSION

A detailed list of exclusions for CORROSION is listed under Warranty Coverage Descriptions.

The following are not covered under this Warranty:

Damage caused by use of the vehicle in any application that is not approved or is inconsistent

with build specifications

Damage resulting from improper use or misuse or abuse, negligence, improper operation, improper or insufficient maintenance (including, but not limited to failure to maintain vehicle as outlined in the driver's/operator's and maintenance manuals), overloading, unauthorized modifications, accidents, or operation at excessive speeds

Environmental damage, including airborne fallout (including chemicals, tree sap, etc.), or other atmospheric conditions, hailstones, or other acts of

nature

Damage caused by road salts/chemicals or cleaning solvents, detergents or compounds

Storage deterioration including damage caused by improper or insufficient storage or maintenance

- Damage caused by road hazards or road conditions
- Damage caused during shipping/transport after initial delivery of vehicle

Damages (including peeling or flaking) caused by high-pressure washing or steam-cleaning Damages occurring after in-service (e.g., from rock

chips)

Damages caused by customer-installed sealer in air conditioning systems

Damages caused by engine horsepower/torque upgrades

 Damage due to vibration associated with misapplication or improper operation of drivetrain components

Damage due to terrorist activities

Damage due to acts of war

The engine, including all of its components as supplied by the engine manufacturer, is not covered under this Warranty, but is warranted separately by the manufacturer of the engine. For engine warranty or service, contact the engine manufacturer's authorized sales and service facility.

ENGINE BRAKES, AIR COMPRESSORS, AND OTHER PROPRIETARY ENGINE COMPONENTS

The engine manufacturer installs most air compressors and engine brakes. Any failure of a proprietary engine component or Jacob Brake component must be filed directly to the engine manufacturer. Failures on non-proprietary engine components can be filed through DTNA.

#### EXHAUST SYSTEM CLAMPS

During the early life of the vehicle or when the engine is cold, many exhaust clamps exhibit a soot trace. This condition is self-correcting and does not require adjustment, tightening, or replacement of the clamp. Claims for adjusting or tightening will not be paid under warranty.

#### FIFTH WHEELS

Adjustment of the locking mechanism, bushings, slide locking plungers, and the repair or replacement of lock guards are considered routine maintenance and are not covered under this Warranty.

#### GLASS, MIRRORS, LENS

Glass, mirror, or lens breakage or chips or scratches of glass, mirrors, or lenses are not covered by this Warranty.

#### MISAPPLICATION OF VEHICLE

The warranty on any vehicle used inconsistent with its specified vocation/application will be downgraded to the warranty that is consistent with the vehicle use. Any and all claims associated with the misapplication of the vehicle will be subject to chargeback.

#### MISCELLANEOUS EXPENSES

Premium charges and work not directly related to the repair or replacement of a warranted part are not covered under this Warranty. Examples include, but are not limited to:

- Federal, state, provincial, and local taxes
- Travel expenses
- Loss of revenue
- Customer labor, including overtime labor
- Downtime
- Driver's expenses
- Cost of rental equipment
- Loss of cargo, including perishable cargo General housekeeping supplies (i.e. (i.e., solvents, sweeping compounds, coveralls, etc.)
- Communication charges
- Towing/road call assistance (unless coverage is specifically stated in the applicable warranty coverage table)
- Repair or replacement of optional items not sold or installed by company
- Removal or replacement of dealer, body builder, or customer installed equipment
- Environmental fees, cleanup, or other charges
- Cost of emergency services

#### MODIFICATIONS TO ORIGINAL EQUIPMENT

Company does not warrant vehicle component or chassis modifications, or equipment installations arranged by Dealers or Customers. In addition, the extra time necessary to remove body builder installed items and/or equipment to work on a warranted repair is not covered under this Warranty unless Company sells the complete chassis/body/equipment as a package.

Dealers or Customers perform any vehicle modifications or equipment installations, to the extent these modifications or equipment installations adversely affect other vehicle components or vehicle performance, Company shall not accept any product liability or claims under the terms of the vehicle warranty. These claims become the sole responsibility of the person performing the modifications or equipment installations.

#### PAINT

The following exclusions to paint warranty include, but are not limited to:

- Complete chassis re-painting to repair paint damages
- Darriages occurring after in-service (e.g., from rock chips)
- Peeling/flaking caused by high-pressure washing or steam cleaning
- Rusting of painted bumpers
- Removal and/or replacement of decals, striping, and/or lettering not applied by Company
- Specific areas of the vehicle are deliberately not painted or are not painted to any standard; paint repairs are not warrantable to such areas. These areas include:
- Underside of the hood, including the inside of the wheel wells
- Underside of the roof-mounted air fairings
- Underside of the exterior sun visor
- Inside of the side-mounted air fairings
- Inside of the bumper
- Aftertreatment devices

Gloss Warranty claims pertaining to gloss issues on vehicles painted with low-gloss colors (identified in the Data Books) will not be covered under this Warranty.

#### SHIP LOGSE FREMS AND COMPONENTS

During the manufacturing process, certain vehicle components are normally placed in the cab of the vehicle or strapped down to the chassis for security reasons. It is the Dealer's responsibility to mount these "ship loose" items in the correct location on the vehicle. Mounting of "ship loose" items will not be covered under warranty.

These items include, but may not be limited to, the following:

- Aerodynamic wheel covers
- Antennas
- Fire extinguishers
- Trailer air hoses
- Trailer electrical cables
- Winter fronts
- Tire inflation hoses
- Spare wheels/tires
- Chrome lug nut covers
- Driver's pouch

Daimler Trucks North America has established a Roof Fairing Removal program in order to reduce transport related damage. The Transporter will remove the fairing during the decking process and secure the fairing on the frame rail of the unit. Benefits for this program include fewer units towed in reverse and an overall improved delivery process.

Some units will continue to be received with the fairing collapsed. It is the Dealer's responsibility to mount these fairings correctly. Claims for mounting of these collapsed fairings will not be covered under warranty.

Those units received with the fairing removed, DTNA warranty will reimburse for the re-installation of the roof fairing prior to delivery to the end customer.

If vehicle is drop shipped directly to customer:

Transporter notifies customer that roof fairing has been removed for transport and arranges for re-installation prior to or at delivery.

- If customer has facilities for re-installation of roof fairings, then fairings will be re-installed at final delivery location.
- If customer does not have facilities to re-install fairings, transporter will arrange with nearest authorized DTNA dealership to have fairings reinstalled and shuttle units to customer location at no additional cost to our customer.

#### TRANSMISSIONS

Allison transmissions and components are not covered under this Warranty, but are warranted separately by Allison. Information regarding Allison's warranty is provided for informational purposes only and is subject to change. For warranty or service information, contact Allison's authorized sales and service facility.

The Detroit DT-12 Transmission is not covered under this Warranty. Please see www.ddcsn.com for coverage details.

#### ROUTINE MAINTENANCE

Routing maintenance, servicing, and adjustment, as defined in the applicable Vehicle Maintenance Manual and Driver's Manual, are excluded from Warranty.

Periodic adjustment or re-torque of wheel bearings, wheel lug nuts, and suspension U-bolts are considered maintenance adjustments and are not covered under warranty.

Vibrations, squeaks, rattles, loose fittings/clamps, hose fitting leaks, loose nuts/bolts/screws, and loose electrical connections may develop during the initial trip(s) of the vehicle and these types of repairs/adjustments are covered under warranty one time during the following applicable initial operating periods unless excluded in the paragraphs below.

Reminder: After the following initial operating periods, these developments are the result of use and their repair/adjustment activities are considered routine maintenance and thus excluded from warranty.

#### INITIAL OPERATING PERIOD

The Initial Operating Period (IOP) for Daimler Trucks North America LLC vehicles is as follows:

Make	Initial Operating Period
Freightliner, Sterling, Western Star	Up to 15,000 miles/ 24 000 km
Freightliner Custom Chassis Corporation (FCCC)	Up to 25,000 miles/ 40 000 km
Thomas Built Bus (TBB) bodies and TBB chassis*	Up to 6 months from date of in- service

<sup>\*</sup> TBB applications utilizing FCCC chassis retain the FCCC IOP separate from the TBB body.

See CONSUMABLE PARTS elsewhere in this section.

Exclusions from warranty during the IOP are:

· Cab, hood, and fender-mounted mirrors are adjusted at the factory but may be retracted by the transporter to prevent damage during transport. Subsequent adjustments and tightening of mirror mounting hardware are considered part of the routine preparation of the vehicle before Customer delivery. Claims for adjusting the mirrors or tightening of the attaching hardware will not be paid under warranty during or after the initial operating period.

 Claims for re-routing of electrical wiring, hoses, or lines which meet Daimler Trucks North America's routing standards will not be paid under warranty

during or after the initial operating period.

 Final preparation of the vehicle for Customer delivery to include cleaning/vacuuming interior of cab, washing windows, washing the exterior of the vehicle, polishing exterior chromed or painted surfaces are considered as ordering-Dealer responsibilities. Claims for these activities will not be paid under warranty during or after the initial operating period.

#### TEST VEHICLES

Any vehicles being used in testing or used to test specific components must be identified to the Warranty Department and accommodations must be made for claims that relate to the test item(s).

Any vehicles used in endurance testing, such as the Altoona Test, are void of all warranty, new or used.

#### TIRES AND TIRE BALANCING

The tires are not covered under this Warranty, but are warranted separately by the tire manufacturer. Tire balancing is not covered under warranty.

#### 1.7 Transfer of Warranty

This Warranty is transferable to a subsequent Owner if it has not expired. To ensure the Owner receives proper warranty recognition, the ownership information should be updated in the Company system.

#### 1.8 Change of Owner Address Information

To ensure Company's ability to reach the current Owner with Recall and Field Service campaign information, the Owner's information must be updated whenever there is a change to the Owner's name or address.

#### 1.9 Product Improvement

Company reserves the right to make improvements or changes to the product at any time without incurring any obligation to make such changes or improvements to any other vehicle.

#### 1.10 Owner's Responsibilities

It is the Owner's responsibility to ensure the vehicle is maintained as outlined in the Driver's/Operator's and Maintenance Manuals. It is important that the new Owner becomes familiar with the contents of the warranty information. When the Owner first receives the vehicle, Dealer should review the Owner's Warranty Information booklet with the Owner.

To initiate warranty for all makes except TBB Bodies and TBB Chassis, customer must complete and sign the Warranty Start Form (WAR275). Dealer must attach the Warranty Start Form to the Product Registration screen in OWL.

For TBB Bodies and TBB Chassis, customers should contact their TBB dealership to initiate warranty.

## Coverage Descriptions

#### Axles

Coverage includes all factory-installed front axles; rear axles; steer axles; drive axles; tag axles; and pusher axles. Detroit axles are warranted directly through Detroit. Excludes any axle installed by a dealer or body builder.

Detroit Axlc(s)

All warranty inquiries and claims are filed directly to Detroit Axles. Please see <a href="https://www.ddcsn.com">www.ddcsn.com</a> for specific coverage details.

Drive Axie(s)

Coverage includes axle housing, carrier assembly, differential assembly, power divider, axle shafts, and gaskets and seals. Excludes suspension and torque rod brackets, tie rod ends, wheel end equipment, wiring, yokes, and attaching hardware.

Front Axle(s)

Coverage is for non-Detroit front axle(s) only. Coverage includes I-beam, steering knuckles, differential on drive steer axle, spindles, kingpin bearings, and steering arms. Excludes tag axle(s), pusher axle(s), wheel end equipment, steering linkage components, driveline(s), U-joints, and kingpin bushings/kingpin seals.

#### Fusher Axle

A pusher axle is a non-driven, weight-bearing axle that can be raised when not required to bear a portion of the load. Since the pusher axle can be of many different configurations, warranty coverage includes all components included in the individual build specification of each individual application.

tear Axle(s)

Coverage is for non-Detroit rear axle(s) only. Coverage includes axle housing, carrier assembly, differential assembly, power divider, axle shafts, and gaskets and seals. Excludes tag axle(s), pusher axle(s), suspension and torque rod brackets, wheel end equipment, wiring yokes, driveline(s), U-joints, and attaching hardware.

Steer Axle(s)

Coverage includes I-beam, steering knuckles, differential on drive steer axle, spindles, kingpins, kingpin bearings and steering arms. Excludes wheel end equipment, tie rod ends, steering linkage components, kingpin bushings, and king pin seals.

Tag Axle

A tag axle is a non-driven, continuous weight-bearing axle. Since the tag axle can be of many different configurations, warranty coverage includes all components included in the individual build specification of each individual application.

#### Battery

Coverage includes Alliance Brand Batteries only; claims for all other brands must be submitted directly to the supplier. Includes starting battery assemblies and factory-installed APU battery assemblies. Excludes non-

Alliance Brand batteries, battery cables, battery mounting box and hardware.

#### **Basic Chassis**

Coverage includes all factory-installed components of the vehicle/chassis that are not excluded elsewhere in the warranty or by special agreement or described as having a different time, or distance or hours, or listed separately on each new vehicle warranty coverage chart.

#### Basic Vehicle

Coverage includes all factory-installed components of the vehicle/chassis that are not excluded elsewhere in the warranty, or by special agreement or described as having a different time or distance, or listed separately on each new vehicle warranty coverage chart.

#### Brightwork

Coverage includes all factory-installed components with chrome, polished aluminum, or polished stainless steel surfaces. Excludes any damage backside of bumpers, and concealed or inner surfaces.

#### Cab Corrosion/Perforation

Coverage is limited to rust-through or perforation of the cab and integral sleeper structure and sleeper box (if applicable) due to corrosion from within. Excludes all conditions of rust or corrosion that has not resulted in rust-through or perforation as well as surface rust or corrosion caused by non-adhesion. Excludes any damage to the paint such as chips or scratches.

#### Cab Structure

Coverage includes cab and integral sleeper structural components, structural components of factory-installed sleeper boxes (if applicable), sheet metal panels, doors, and hoods. Excludes all bolt-on components including door and hood hinges, latches, guides, and other mounting hardware.

#### Corrosion

Coverage provides warranty against corrosion to any metal or metal alloy part of the vehicle. Rust or corrosion to specific components and/or caused by certain conditions are excluded from all Company warranty coverage and will not be paid under Basic Vehicle, Cab Structure, Cab Corrosion, or Aftermarket Parts Warranty.

Exclusions to corrosion warranty include, but are not limited to, the following:

- Corrosion caused by general rust (for example, rust on the unfinished backside of a bumper)
- Surface rust caused by chips or scratches in the paint or chrome surfaces
- Corrosion caused by high-pressure washing, severe wash solutions, cleaning solvents, detergents, compounds
- Corrosion caused by salinity in the environment or corrosive salts and/or chemicals used on the road surface.

- Corrosion caused by acid rain or other industrial fallout
- Corrosion due to improper prevention measures during storage or use
- Corrosion or rust on tone rings, rotors or drums (rotor exclusion does not apply to hydraulic discs with Magna- Coat Rotors)
- Corrosion due to environmental damage (including ocean spray); airborne fallout (includes chemicals, tree sap, etc.), or other atmospheric conditions or other acts of nature
- Corrosion due to improper use, misuse or abuse, negligence, including improper or insufficient maintenance

#### Cowl Corrosion/Perforation

Coverage is limited to rust-through or perforation of the cowl due to corrosion from within. Excludes all conditions of rust or corrosion that have not resulted in rust-through or perforation as well as surface rust or corrosion caused by non-adhesion. Excludes any damage to the paint such as chips or scratches.

#### Cowl Structure

Coverage includes cowl structural components, sheet metal panels, and hood. Excludes all bolt-on components including hood hinges, latches, guides, or other mounting hardware.

#### Crossniembers

Coverage includes crossmembers, gussets, and huckmounting bolts that attach gussets to crossmembers and gussets/crossmembers to frame rails. Excludes any bolt-on item attached with either conventional or huck bolts.

#### Driveline

Coverage includes driveshaft tubing, U-joints, yokes, support bearings, and splines.

#### Frame Rails

Coverage is limited to breaking or cracking of factoryinstalled frame rails, frame rail liners, frame rail extensions, and any item(s) factory welded to them. Excludes all bolt-on items regardless if attached with conventional or huck bolts.

#### GHG14\*

Daimler Trucks North America LLC (DTNA) warrants that its vehicles are (1) designed, built and equipped so as to conform, at the time of sale, with requirements of vehicle manufacturers whose vehicles are designed to meet applicable 2014 and later U.S. Environmental Protection Agency and National Highway Traffic and Safety Administration Standards greenhouse gas and fuel efficiency standards, and (2) free from defects in material and workmanship which cause the vehicle to fail to conform with the vehicle manufacturer's requirements for all vehicle emission control items listed below.

\*Coverage name/description may vary, check actual warranty online via OWL's Coverage Info/Check Coverage screen for coverage listed as "GHG14..."

#### GHG14 Tire\*

Daimler Trucks North America LLC (DTNA) warrants that its vehicles are (1) designed, built and equipped with tires that conform, at the time of sale, with requirements of vehicle manufacturers whose vehicles are designed to meet applicable 2014 and later U.S. Environmental Protection Agency and National Highway Traffic and Safety Administration greenhouse gas and fuel efficiency standards, and (2) those tires are free from defects in material and workmanship which cause the vehicle to fail to conform with the vehicle manufacturer's requirements for a period of 2 years or 24,000 miles, whichever occurs first. Claims for failures under this coverage are filed directly to the tire manufacturer.

\*Coverage name/description may vary, check actual warranty online via OWL's Coverage Info/Check Coverage screen for coverage listed as "GHG14..."

#### Glider

An incomplete vehicle which may be ordered with or without engine and/or major drivetrain components; warranty coverage includes all components as specified in the specific build specification.

#### Hybrid Transmission - Eaton

Eaton requires that only hybrid-authorized dealerships work on units equipped with Eaton hybrid parts. Preauthorization is required prior for repair of these vehicles in order to obtain technical assistance and a preauthorization number for replacement parts. Eaton hybrid parts will be shipped directly from Eaton and will not be stocked in the PDCs due to the short shelf life and low volume. The following hybrid parts are covered under this Warranty: power electronics carrier (PEC), motor generator, inverter, DC/DC converter, hybrid control module (HCM), transmission control module (TCM), clutch, and electronic clutch actuator (ECA). Coverage does NOT include oil cooler or cooling systems. Please reference Roadranger Warranty Guide TCWY0900 for more information on complete listing of limits and exclusions, as well as terms and conditions.

#### Off Road On-Site Assistance

Coverage is exclusively available for off road vehicles that are prohibited from use on public streets. If this coverage is provided, it will be specifically included in the coverage table as a separate category. Coverage includes on-site assistance and/or equipment transportation to the nearest authorized repairing location for a Daimler Trucks North America LLC warrantable repair.

#### Paint (Body, Cab, & Cowl)

Paint coverage excludes lack-of gloss issues on vehicles painted with low gloss colors; the underside of hoods and roof and side mounted air fairings; and any damages to the paint or painted surface such as chips and scratches.

#### Body Paint

Coverage includes all factory-painted exterior body surfaces. Warranted against orange peel; peeling/delaminating; cracking or checking; or loss of gloss due to cracking, checking or hazing.

#### Cab Paint

Coverage includes all factory-painted surfaces (except those included in chassis paint coverage). Warranted against orange peel; peeling or delaminating; cracking or checking; or loss of gloss due to cracking, checking or hazing.

#### Cowl Paint

Coverage includes all factory-painted exterior surfaces of cowl structure (except those included in chassis paint). Warranted against orange peel; peeling or delaminating; cracking or checking; or loss of gloss due to cracking, checking or hazing.

#### Paint, Chassis (Chassis Paint)

Coverage includes all factory painted surfaces on frame rails, crossmembers/gussets, front and rear bumpers, suspension components, power train components, drivelines, fuel tanks, air tanks, wheel end equipment, tool boxes, battery boxes, access steps, and attaching brackets and hardware. Warranted against peeling or non-adhesion. Excludes U-joints and any damages to the paint or painted surface such as chips and scratches.

#### Towing/Roadside Assistance

Coverage includes roadside assistance or towing (to the nearest authorized repair location) for a Daimler Trucks North America LLC warrantable repair in a vehicle-down situation that prevents the safe and lawful operation of the vehicle. If this coverage is provided, it will be specifically included in the coverage table as a separate category.

#### Transfer Case

Coverage includes housing and all internally lubricated parts. Excludes broken synchronizer pins, PTOs, airlines, gauge, clutch assemblies, driveline(s), and U-joints.

#### Transmission

Coverage does not include Allison transmissions, Detroit transmissions, or Eaton Hybrid transmissions. Coverage includes housing and all internally lubricated parts, electric/air shift/control units, valves, gaskets, and seals. Excludes broken synchronizer pins, PTOs, airlines, gauge, gauge senders, yoke(s), clutch assemblies, clutch and clutch control components including clutch brake, driveline(s), and U-joints.

#### Wheel End Equipment

Coverage includes brake components, wheels, hubs, drums, rotors, wheel seals/ bearings, slack adjustors, and attaching hardware.

## Exhibit B - DF2369E New Off-Highway Engine Warranty

#### Exhibit B - DF2369E New Off-Highway Engine Warranty

JOHN DEERE NEW OFF-HIGHWAY ENGINE WARRANTY

#### Warranty Duration

Unless otherwise provided in writing, John Deere\* makes the following warranty to the first retail purchaser and each subsequent purchaser (if purchase is made prior to expiration of applicable warranty) of each John Deere new off-highway engine marketed as part of a product manufactured by a company other than John Deere or its affiliates and on each John Deere engine used in an off-highway repower application:

12 months, unlimited hours of use, or

24 months and prior to the accumulation of 2000 hours of use

Note; In the absence of a functional hour meter, hours of use will be determined on the basis of 12 hours of use per calendar day.

#### Warranty Coverage

This warranty applies to the engine and to integral components and accessories sold by John Deere, and delivered to the first refail purchaser

All John Deere-warranted parts and components of John Deere engines which, as delivered to the purchaser, are defective in materials and/or workmanship will be repaired or replaced, as John Deere elects; without charge for parts or engine repair labor, including reasonable costs of labor to remove and reinstall non-engine parts or components of the equipment in which the engine is installed, and, when required, reasonable costs of labor for engine removal and reinstallation, if such defect appears within the warranty period as measured from the date of delivery to the first retail purchaser.

#### **Emissions Warranty**

Emissions warrantles appear in the Operator's Manual, that is furnished with the engine/machine.

#### Obtaining Warranty Service

Warranty service is to be performed by a local John Deere engine service outlet before the expiration of the warranty. An authorized service outlet is a John Deere engine distributor, a John Deere engine service dealer, or a John Deere equipment dealer selling and servicing equipment with an engine of the type covered by this warranty. Authorized service outlets will use only new or remanufactured parts or components furnished or approved by John Deere.

Authorized service locations can be found by using the dealer locator on www.johndeere.com, or by calling 1-800-JDENGINE (800-533-6446). At the time of requesting warranty service, the purchaser must be prepered to present evidence of the engine's delivery date. John Deere relimburses authorized service outlets for limited travel expenses incurred in making warranty service repairs in non-John Deere applications when travel is actually performed. Contact your local authorized service dealer for current travel reimbursement limits, if distances and travel times are greater than reimbursed by John Deere, the service outlet will charge the purchaser for the difference.

#### Purchaser's Responsibilities ...

The cost of normal maintenance and depreciation,

Periodic cleaning of the Diesel Exhaust Filler.

Consequences of negligence, misuse, or accident involving the engine, or improper application, installation, or storage of the engine. Consequences of service performed by someone other than a party authorized to perform warranty service, if such service, in John Desre's Judgment, has adversely affected the performance or reliability of the engine.

Consequences of any modification or alteration of the engine not approved by John Deere, including, but not limited to, tampering with fuel and air delivery systems. Consequences of fuels, lubricants or coolant that fails to meet the specifications and requirements listed in the Operator's Manual.

"John Deere" means John Deere Power Systems with respect to users in the United States, John Deere Limited with respect to users in Canade, and Deere & Company or its subsidiary responsible for marketing John Deere equipment in other countries where the user is located. DF2369E (28 July 2013)

Continued on next page

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The effects of cooling system neglect as manifested in cylinder liner or block cavitation ("pitting", "erosion", "electrolysis").

Any premium for overtime labor requested by the purchaser.

Costs of transporting the engine or the equipment in which it is installed to and from the location at which the warranty service is performed, if such costs are in excess of the maximum amount payable to the service location were the warranty service as performed, if such costs are in excess to the maximum amount payable to the service location were the warranty service performed at the engine's location.

Costs incurred in gaining access to the engine; i.e., overcoming physical barriers such as walls, fences, floors, decks or similar structures impeding access to the engine, rental of cranes or similar, or construction of ramps or lifts or protective structures for engine removal and reinstallation.

incidental travel costs including meals, lodging, and similar.

Service outlet costs incurred in solving or attempting to solve non-warrantable problems.

Services performed by a party other than an authorized John Deere engine service dealer, unless required by law.

Charges by dealers for initial engine start-up and inspection, deemed unnecessary by John Deere when operation and maintenance instructions supplied with the engine are followed.

Costs of Interpretation or translation services.

Periodic cleaning of the Diesel Exhaust Filter.

John Deere will not be responsible for the cost of Exhaust Filter or Diesel Particulate Filter (DPF) cleaning unless:

- The need for cleaning resulted from the failure of a part that is covered by the engine's Standard Product Warranty or Extended Warranty, or
   The engine is located in California and the need for cleaning was caused by a failure covered under applicable CARB emissions regulations.

#### No Representations or Implied Warranty

Where permitted by law, neither John Deere nor any company affiliated with it makes any guaranties, warranties, conditions, representations or promises, express or implied, oral or written, as to the nonoccurrence of any defect or the quality or performance of its engines other than those set forth herein, and DOES NOT MAKE ANY IMPLIED WARRANTY OR CONDITIONS OF MERCHANTABILITY OR FITNESS otherwise provided for in the Uniform Commercial Code or required by any Sale of Goods Act or any other statute. This exclusion includes fundamental terms. In no event will a John Decre engine distributor or engine service dealer, John Decre equipment dealer, John Decre or any company affiliated with John Deere be liable for incidental or consequential damages or injuries including, but not limited to, loss of profils, loss of crops, rental of substitute equipment or other commercial loss, damage to the equipment in which the engine is installed or for damage suffered by purchaser as a result of fundamental breaches of contract or breach of fundamental terms, unless such damages or injuries are caused by the gross negligence or intentional acts of the foregoing parties.

#### Remedy Limitation

The remadies set forth in this warranty are the purchaser's exclusive remedies in connection with the performance of, or any breach of guaranty, condition, or warranty in respect of new John Deere engines. In the event the above warranty falls to correct purchaser's performance problems caused by defects in workmanship and/or materials, purchaser's exclusive remedy shall be limited to payment by John Deere of actual damages In an amount not to exceed the cost of the engine.

#### No Seller's Warranty

No person or entity, other than John Deere, who sells the engine or product in which the engine has been installed makes any guaranty or warranty of its own on any engine warranted by John Deere unless it delivers to the purchaser a separate written guaranty certificate specifically guaranteeing the engine, in which case John Deere shall have no obligation to the purchaser. Neither original equipment manufacturers, engine or equipment distributors, engine or equipment dealers, nor any other person or entity, has any authority to make any representation or promise on behalf of John Deere or to modify the terms or limitations of this warranty in any way.

#### Additional Information

For additional information concerning the John Deere New Off-Highway Engine Warranty, see the Operator's Manual

DF2369E (29 July 2013)

QUQ6078.0002DD8 -19-07QCT14-2/2



The People You Know. The Products You Trust.



# A7 Tornado™

8.4 Cubic Yard Regenerative Air Street Sweeper

\*Sweeper shown with optional equipment



CSIB #980409 Toil Free 1-888-484-9968

Sacramento, CA 95827 Office 216-922-1101 Fax 916-922-1034

Redding, CA 96003 Office: 530-243-4856 Fox: 530-243-1447

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- PM 10 Certified
- WhisperWheel Fan Technology
- Schwarze Sweeps-in-Reverse
- DC Auxiliary Hydraulic Pump









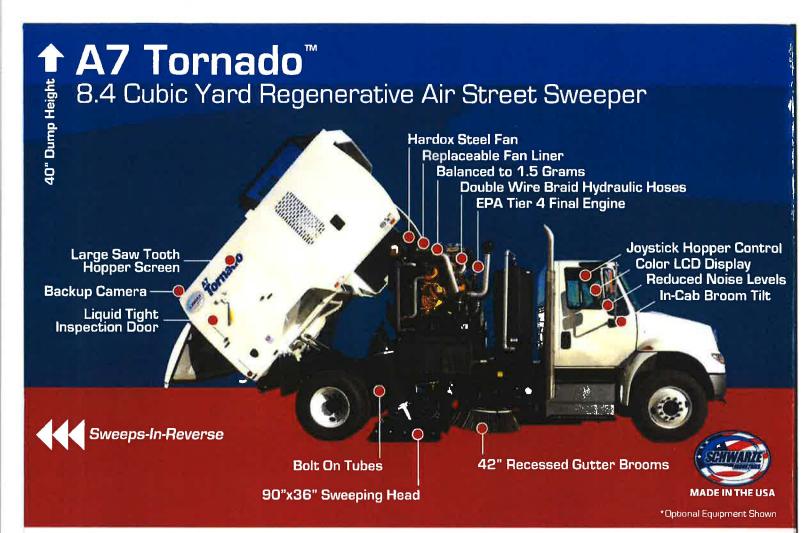


Quality

Performance | Public Safety

Value

**Customer Support** 



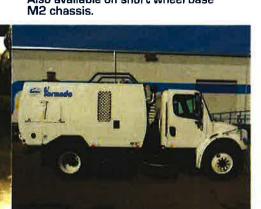
Increased hopper screen surface area through saw-tooth design.

Easy to use backlit switches with text and icon labels.



Shielded broom motor reduces entanglement of strings & twine.

Also available on short wheel base





#### MUST HAVE OPTIONS

**INCREASED WATER** Extra 350 gallon polyethylene water tank

INCREASED SIDE BROOM USABILITY Add The Gutter Broom Extension Override (Schwarze GEO<sup>SM</sup>)

**GREATER DURABILITY** Choose the Stainless Steel Hopper option

AT YOUR FINGERTIPS In-cab down pressure control

CLEANING IN TIGHT AREAS 8" auxiliary hand hose

## **VALUE**

providing the most advanced training for their specific

#### PERFORMANCE





## QUALITY

In a Schwarze product, end user concerns like fuel efficiency, serviceability, durability, purchase cost, service cost, etc. are all taken into account. We also consider the needs and strive for ease of use and application optimization. It should be obvious, because when it comes to cost of ownership, quality pays.

## **PUBLIC SAFETY**

No other name speaks safety louder than Schwarze. Protecting operators, those around them, and minimizing our environmental impact are traditional values that continue to shape our product design philosophy.





## **CUSTOMER SUPPORT**

Being a Schwarze customer means having a complete set of services at your fingertips, Schwarze can offer you a long-term relationship, protect, your revenue and provide a full range of customer solutions, delivered by passionate people. At Schwarze, we don't see effective service and support just as an added value to your purchase, but as an integral part of it.



Also Available from Schwarze Industries, Inc.





























\*TYPICAL MEASUREMENTS SHOWN . EXACT DIMENSIONS DEPENDING ON OPTIONS AND TRUCK MANUFACTURER

#### SWEEPING PATH

Pickup head only 90 in (2286 mm) Head and 1 broom 117 in [2972 mm] Head and 2 brooms 144 in (3658 mm)

#### CHASSIS

Mounts on various chassis to meet requirements

#### SWEEPER BODY

Welded 10-gauge Construction stainless steel plate Safety props Lift spacers

#### STANDARD ENGINE

Model/type 4045T in-line 4 cylinder Aspiration Tier 4 Final turbo-charged diesel Manufacturer John Deere Displacement 275 cu in. (4.5 L) Brake horsepower 115 hp (86 kw) @ 2400 rpm 317 ft lb (430 Nm) Torque @1500 rpm

Centrifugal precleaner, Air cleaner dry type with safety element and restriction indicator

Oil filter Full-flow/spin-on 5 in (127 mm) Stroke

Bore 4.20 in [106 mm] Compression ratio 19 to 1

Safety shutdown Three-point automatic

Throttle control Electronic

#### SWEEPER ELECTRICAL SYSTEM

12 V Voltage 90 amp Engine alternator

#### DUST CONTROL SYSTEM

High pressure/low volume Type Capacity 250 gallon (946 L) Tank construction Polyethylene filter; 50 mesh; cleanable Fill diameter 2.5 in (63.5 mm) 25 ft [7620 mm] Fill hose Controls Electric; in-cab 2 on each broom: Nozzles

5 around suction head; 2 inside suction nozzle;

2 on front axle: 2 inside hopper

Water level gauge In-cab

#### INSTRUMENTATION

Flat panel display, Auxiliary engine tachometer; hourmeter; voltmeter; temperature gauge; oil pressure gauge; warning icons

#### FAN SYSTEM

Type Closed-face radial Drive Direct via 5 groove; banded power belt Construction Hardox steel 1.5 grams on 2 sides Balance Diameter 32.75 in (832 mm) Housing lining Bolt-in corded rubber Mounting 2 regreasable sealed

bearings Vacuum enhancer For heavy/light material;

in-cab indicator

#### PICKUP HEAD

Dual chambered Туре full-width blast orifice Operating direction Forward and reverse Suspension Adjustable spring balanced 90 in (2286 mm) Length 14 in (355.6 mm) Pressure hose diam Suction hose diam 14 in (355.6 mm) Hose construction 3/8 in [9.5 mm] wire-reinforced molded rubber 3240 sq in (20903 sq cm) Head area

Controls Hydraulic raise and lower Skids Double wide tungsten carbide

Construction Abrasion-resistant steel inlet and outlet transitions.

#### SIDE BROOMS

Vertical steel digger Type Location Right; left; forward of pickup head 42 in (1118 mm) Diameter Drive Hydraulic Torque-sensing spring

Suspension Wear adjustment Automatic Pressure Manual

Speed Variable: non-reversing 5 each side; disposable Segments Tilt angle adjustment In-cab controls

#### **DEBRIS HOPPER**

Volumetric capacity 8.4 cu yd (6.4 cu m) **Usable Capacity** 7.0 cu yd [5.4 cu m] Dump angle 51 degrees Floor angle 3 degrees Lifting Twin hydraulic cylinders Hopper dump door Hydraulic open, close, lock Inspection doors 1 on each side. pressure vessel lock Hopper dump height 40 in [1016 mm] Debris screens Sawtooth drop down

#### HYDRAULIC SYSTEM

Dual output 2 section Type Pump capacity 8 gpm @ 1800 rpm (30 lpm) per section for 16 gpm total Drive Direct gear 2750 psi [190 bar] Maximum pressure Reservoir 25 gal (94 L) 10 micron; spin on Filter Protection Pressure relief valve Controls Electro-hydraulic

#### **AUXILIARY HYDRAULIC SYSTEM**

Gear type; driven by Type electric motor **Function** Lower hopper: open/close hopper door, raise brooms and pickup head

#### PAINT

One coat of sealer/primer and two coats of Dupont imron elite polyurethane in standard white color

Note: Design and specifications subject to change without notice

\*Ask us about our optional:



Affiliates:







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## MUNICIPAL MAINTENANCE EQUIPMENT











SACRAMENTO | REDDING | PLACENTIA | HAYWARD | LAS VEGAS







# **ABOUT MME**

#### At a Glance

Founded: 1992

Employees: 35+

Locations: 5

Average Years of Experience With Product Lines: 17

#### **Industries Served**

#### Municipal:

- Cities
- Counties
- States
- Special Districts

#### Industry:

- Power
- Sanitary
- · Water/Wastewater
- Trucking

#### Contractor:

- Sweeping
- Plumbing
- Excavation
- · HD Vehicle Maintenance

#### Agriculture:

- Vineyards
- Farms

Truck/Bus/RV Maintenance

#### **Corporate Executives**

Helen Mackenzie Wheeler President/CFO

James Wheeler
Vice President/Operations

Frank Wheeler Vice President

Bob Egli Vice President

Nancy Steffan
Corporate Secretary

#### We are dedicated to making a difference, one relationship at a time.

#### Corporate Overview

Municipal Maintenance Equipment, Inc. (MME) is a distributor for municipal and industrial equipment serving the western states of California, Nevada, and Utah from our facilities in California and our facility in Nevada.

Headquartered in Sacramento, California, MME began with Tiger Mowers and vehicle lifts, that same year adding the Vac-Con and GO-4 lines, all of which we still represent to this day. In 1996 MME opened an office in Southern California, in 2005 MME opened an office in the northern part of California, in 2008 MME opened an office in the San Francisco Bay Area, and in 2018 MME opened an office in Las Vegas, Nevada. MME currently represents leading manufacturers of sewer, storm, and culvert cleaners, hydro-excavators, industrial vacuum loaders, flood trucks, pipeline closed circuit video inspection equipment, sweepers for streets, parking lots and pathways, tractor and truck mounted mowers, leaf loaders, material spreaders, asphalt patchers, parking enforcement vehicles, heavy duty vehicle lifts, garage equipment, and more. To see our full product listing, see Products or visit us at www.source-mme.com.

#### Our Mission

To provide outstanding customer service:

- By understanding our customer needs
- · By responding to our customer's requests in a timely and professional manner

To maintain vendor relationships:

- By being committed to our key product lines
- · By exceeding our sales goals and objectives

To find and maintain the best qualified employees:

- By treating each employee on our team with respect
- By equipping our employees with the tools to be successful
- By holding each employee accountable for their performance

To provide profits to our company:

- By purchasing and selling responsibly
- By controlling expenses
- By being consistent and fair in policies and business transactions









# PRODUCT LINES

#### Products and services that are setting industry-wide standards for quality, durability and performance.

# Sewer/Storm Drain/Culvert Maintenance

Combination Sewer and Storm Drain Cleaners:

- Single Engine or Dual Engine
- Fan or PD Blowers
- 5 to 16 Yard Debris
- Truck and Trailer Mounted

#### High Pressure Jetters/Flushers:

• Truck and Trailer Mounted

#### Specialized Cleaning Nozzles

- Rotating
- Chain Scrapers
- Cutters
- High Pressure

#### **Hydro-Excavators**

To handle the toughest and challenging excavating jobs

#### Industrial Vacuum Loaders

Wet and Dry Vacuum Capabilities

#### **Sewer CCTV Inspection**

- Van, Truck, and Trailer Mounted
- Mainline 5.5" to 72" diameter
- Portable Push Systems 0.6" to 16"
- Lateral Launch
- Custom Applications

#### **Street Sweepers**

- Regenerative Air
- Mechanical
- Pure Vacuum
- For Streets, Runways, Bike Paths, Parking Lots

#### Mowers, Heavy Duty Roadside

- Tractor or Truck Mounted
- Boom Mowers
- Side Mowers
- Flail or Rotary

#### **Leaf Loaders**

- Truck and Trailer Mount
- Collect leaves, litter, grass, debris

#### **Material Spreaders**

- Ice and Snow Control
- V-Box design for salt, sand, mixtures, and chips

#### Vehicle Lifts, Heavy Duty

- Mobile Column
- In-Ground Piston and Scissor
- Platform
- 2-Post
- 4-Post

#### **Garage Equipment**

- Wheel Dollies
- Transmission Stands
- Axle Stands

#### **Parking Enforcement Vehicles**

Gas and Electric Task Specific Vehicles

#### **Asphalt Patchers**

- · Truck, Trailer, and Slip-In
- Crack sealers, melt kettles, tack trailers

































# PARTS, SERVICE & REPAIR CAPABILITIES

#### At your site or in our shops, MME is available 24/7 to service your equipment.

#### **Parts**

At MME we understand the importance of uptime. Therefore all of our facilities carry a large stock of OEM genuine parts and trained parts specialists with the right knowledge and experience to assist you. The right part is just a phone call away.





#### Field Service

24/7 On-Call Service

Factory-Trained, Experienced Technicians

Fully-Equipped Service Trucks

Preventive Maintenance (PM) Contracts for all product lines we sell

Hydraulic, Mechanical, and Electrical Troubleshooting

Start-Up, Warranty Work and On-site Repair of:

- Pumps
- Hydraulics
- Electrical
- Stertil-Koni Vehicle Lifts
- ALI Certified Lift Inspectors



#### In-House Full Service Repair

Factory-Trained, Experienced Technicians

Protect Your Investment with our Service Programs:

- Detailed Inspection
- Proper Maintenance

Repair and Rebuild Services on most makes and models of sewer cleaning, hydro-excavation equipment, and street sweepers

Oil & Filter Change

More than \$1M in OEM Parts

Call 888-484-9968 for 24/7 Service.