



CITY OF  
**SANTA ROSA**  
INVITATION FOR BIDS

**10 WHEEL CAB & CHASSIS WITH “RELIANCE” DUMP BED**

DATE ISSUED

2006

BIDS DUE

AT 5:00 P.M.

TO: PURCHASING AGENT  
CITY OF SANTA ROSA  
MUNICIPAL SERVICE CTR.  
55 STONY POINT ROAD  
SANTA ROSA, CA 95401

BUYER:  
(707) 543-

**INVITATION FOR BIDS 02-03-39  
CAB & CHASSIS UNITS**

Sealed Bids, signed and in the original only, subject to the Invitation For Bids, Provisions and Specifications, will be received at 55 Stony Point Road until **2:00 P.M. on J** \_\_\_\_\_, for furnishing the supplies and/or services described in the accompanying Schedule.

The City of Santa Rosa desires to purchase the vehicles listed below in compliance with the terms, conditions and specifications contained herein. The number of vehicles purchased will be contingent on available funding at time of bid award

ITEM NO.	QTY.	UNIT	BID ITEM NO 1	UNIT PRICE	TOTAL AMOUNT
1A.	1	Ea	2006 or newer, 56,000 lb. GVW, three (3) axle Cab & Chassis. <b>It is "NOT" to be used as mule.</b>		\$ _____
			<b>Sales Tax 8%</b>		\$ _____
1B.	1	Ea	Power Train 7 year, 100,000 miles <u>extended</u> <b>Warranty manufacturer warranty</b> , with <u>\$100 Deductible</u> .		\$ _____
			<b>Drop Ship Delivery Charge</b>		\$ _____
			<b>Total Item 1</b>		\$ _____
			\$ _____	\$ _____	
			<b>Sales Tax 8%</b>	\$ _____	\$ _____
2A.	1	Ea	11 - 12 Yard <b>Reliance</b> Dump Bed Mounted on Cab & Chassis as Complete Unit.	\$ _____	\$ _____
				\$ _____	\$ _____
				\$ _____	\$ _____

**LOCAL VENDOR PREFERENCE CLAIMED: \_\_\_ YES \_\_\_ NO**

(See: LOCAL VENDOR PREFERENCE, in GENERAL PROVISIONS and attach a copy of your City Business Tax Certificate.)

**BID ITEM(S) AVAILABLE FOR OTHER AGENCY "PIGGY-BACK" PROCUREMENT: \_\_\_ YES \_\_\_ NO**

**NOTE:** Prospective sellers are referred to GENERAL PROVISIONS for terms and conditions of OTHER AGENCY "PIGGY-BACK" PROCUREMENTS.

**BID**

In compliance with the above, the undersigned offers and agrees, if this Bid is accepted, within ninety (90) calendar days from date of opening, to furnish any or all of the items upon which prices are offered at the price set opposite each item, delivered at the designated point(s) within the time specified in the Schedule. Discounts will be allowed for prompt payment as follows: \_\_\_\_\_ percent, 20 calendar days; \_\_\_\_\_ percent, 30 calendar days.

Name and Address of Bidder:	Signature of Person Authorized to Sign:
Phone No.	
Date of Bid:	Please Type Signer's Name and Title:

## **DELIVERY INFORMATION**

The Bidder shall be required to state the delivery lead time to the drop ship point for the vehicle specified herein in the space provided below. This could be a deciding factor with penalties:

Bid Item No. 1: \_\_\_ calendar days after receipt of purchase order.

Bid Item No. 2: \_\_\_ calendar days after receipt of purchase order.

Specific drop-ship location will be given after award notification of each vehicle.

Final inspection of the cab and chassis will be at address below upon delivery of completed unit:

CITY OF SANTA ROSA  
CORPORATION YARD GARAGE  
55 STONY POINT ROAD  
SANTA ROSA, CA 95401  
ATTN: PAT BLUE/JON MERIAN (707) 543-3882  
or BOB PACHECO (707) 543-3707

## **BID RESULTS**

NOTE: The results of the bid opening can be obtained by accessing the City's web site address listed below not sooner than three (3) days after opening of bids:

**[http://www.ci.santa-rosa.ca.us/as/gs/purchasing/bid\\_results.asp](http://www.ci.santa-rosa.ca.us/as/gs/purchasing/bid_results.asp)**

The posted bid results will not list all exceptions taken to each specification, and shall not be considered as final. Where bid exceptions are noted, said exceptions will be evaluated to determine exception or rejection. Should you have any questions regarding the bid results, please call City Senior Buyer, ----- at (707) 543- \_\_\_\_\_.

## **MINIMUM SPECIFICATIONS**

**The purchase and installation of the equipment is solicited as a complete unit. The equipment purchased and installed will be done under this contract.**

The cab and chassis units may be drop-shipped by the vehicle manufacturer, F.O.B. destination, to a location where the equipment installation will take place. The successful bidder for each bid item will be notified in writing of the destination point prior to shipment of cab and chassis. Bidders must indicate with their bid, any advance notice of delivery that may be needed by the manufacturer. All shipping charges to the drop ship location shall be included stated on page 1. The body/equipment vendor will be responsible for shipping costs to deliver the completed unit to the successful bidder's facility for vehicle pre-delivery servicing.

Bidders are required to submit with their bid with an "as bid cab and chassis print out" listing the build-up specifications and documented turning radius of the proposed vehicles. Failure to submit this information may be sufficient reason to consider the offer non-responsive.

The cab and chassis units will not be inspected by City personnel prior to delivery to the drop ship location. Therefore, the successful bidder will be required to provide the City with an "as built cab and chassis print-out" not later than ten (10) days prior to shipment of the vehicles. The City reserves the right to inspect the cab and chassis for compliance to the "as built print-out" and City specifications upon delivery of the completed unit to the City. A 90% partial payment may be made to the successful bidder upon receipt of the cab and chassis at the equipment installation site and receipt of an original invoice. Balance of payment will be made upon complete acceptance of the cab and chassis by the City. The successful bidder will be required to correct, at no cost to the City, all specification deficiencies that may be found at that time.

**GENERAL:** It is the intent of these specifications to describe newly manufactured and unused 2006 or newer cab and chassis units. Each vehicle shall be a current production models consisting of parts and materials that are the proper size, quality and design for each GVWR specified. The vehicles shall meet or exceed the construction and performance specifications described in the following minimum specifications.

All equipment furnished as standard by the manufacturer shall be included, if not stated in the written specifications.

Special items needed to bring each vehicle up to specifications shall be accepted only if they are the manufacturers regular or approved factory options.

Prior to delivery, all equipment specified herein shall be completed and serviced as necessary to assure proper operation.

Any deviations from the written specifications shown in the Invitation For Bids shall be noted in the Exceptions Section of the Request (see Required Data Section). In order to receive full consideration, bids must fully follow these Specifications and the Invitation For Bid's General Conditions.

**BIDDER COMPLIANCE**

<u>YES</u>	<u>NO</u>		
_____	_____	Paint Application:	In all cases, painting shall be done strictly in accordance with the paint manufacturer's directions. Bare metal shall be conditioned with the recommended wash, rinsed, dried, and immediately primed. The top coat shall be free from irregularities such as "runs" or "sags" on any large surface. Sufficient time shall be allowed between coats to assure thorough drying of previously applied paint. <b>NOTE:</b> Paint shall be of a catalyzed mixture for maximum durability.
_____	_____	Advertisement:	<u>No</u> decals, painted signs or dealer logos of any kind will be allowed anywhere on the equipment. Only the standard manufacturer's logos or other markings are acceptable on any part of the cab, chassis or body.
_____	_____	Programmable Multi-Plex Wiring and Construction:	All wiring shall be performed <u>without the use</u> of "Scotch Lok" or common type crimp connectors for wire taps. All connections shall be of molded factory type, Swage compression type or soldered with weather tight sealed shrink covering. All exposed wires shall be enclosed in appropriate loom and secured so as not to become damaged. <b>Provide and mark locations for additional Electrical connections and Transmission Plug. All wiring to be in protective loom. Body Integration- Provide six (6) Fused Piloted Rocker switches for body builder. Programmable Multi-Plex electrical system.</b>
_____	_____	Additional Items:	<b>NOTE:</b> Any additional welding to the chassis during installation of equipment and accessories is <u>unacceptable</u> . All equipment and accessories shall be securely fastened to the vehicle by the appropriate SAE Standard Grade of nuts and bolts. Upon delivery the successful bidder shall be required to provide a complete set of replacement filters where needed for all special equipment including hydraulic circuits, excluding cab and chassis drive line.
_____	_____	Legal Requirements:	Shall meet or exceed all local, State and Federal legal requirements including Cal-OSHA, California Emissions and California Division of Forestry requirements.

**SPECIFICATIONS**  
**1.0 CAB AND CHASSIS**  
**WITH 11 / 12 RELIANCE HEAVY DUTY DUMP BED**

**BIDDER COMPLIANCE**

**YES**    **NO**

- |       |       |                           |   |
|-------|-------|---------------------------|---|
| _____ | _____ | 1.1 Gross Vehicle Weight: | <b>Not less than 56,000 pounds.</b>   |
| _____ | _____ | 1.2 Wheelbase:            | <b>Not less than 193" nor more than 195"</b> , with a cab to axle of <b>not more than 131" with not less than 55"</b> after frame.  |
| _____ | _____ | 1.3 Cab Type:             | Shall be air ride, conventional wide cab with set back axle, a sloped nose fiberglass forward tilt. Shall include one (1) high back, air suspension seat and one (1) passenger bucket seat with heavy-duty color coordinated vinyl covering for both driver and passenger. Seats shall have 3-point retractable seat belts and built in "Cab" headrest. Shall include a heavy-duty, reinforced rubber floor mat with sound proof insulation backing. Shall include tinted glass all around and operable wind wing vent windows, with non-operable window in the lower forward area of the right cab door. Shall include an outside sun visor above windshield across entire cab. <b>NOTE:</b> |
| _____ | _____ | 1.4 Engine:               | Shall be "Cat C-13" with ACERT Technology diesel - 335 BHP <b>minimum</b> rated at 2,100 RPM with 1,250 foot pounds of torque <b>minimum</b> , peak rated at or below 1,200 RPM with front crankshaft drive for accessories. Shall include turbocharger, after cooler, heavy-duty high capacity spin-on disposable oil filter, and heavy-duty "Donaldson" dry type air filter with in dash mounted "Baldwin" or 'Donaldson" restriction indicator. Shall be a fully electronic engine, and include cruise control.  |
| _____ | _____ | 1.5 Cooling:              | Shall have <u>increased heavy-duty cooling</u> capacity with bolted cross flow radiator core to exceed basic engine requirements. Shall include air-clutch fan, silicone radiator and heater hoses, coolant corrosion conditioner, and be protected to -20 degrees <b>minimum</b> . Shall include stone, bug, or gravel, radiator guard to protect radiator and extended life coolant.  |
| _____ | _____ | 1.6 Fuel Tank:            | Shall include a 70-gallon <b>minimum</b> step type tank on left side. Shall also include an approved fuel-water separator between tank and engine compartment, and extended step extension on top of tank. <b>Maintain Maximum ground clearance.</b>  |
| _____ | _____ | 1.7 Exhaust:              | Shall be single aluminized horizontal steel muffler, vertical stack on the right side of the cab, with a factory <b>full</b> heat protective grille to frame and rain cap. The exhaust muffler system shall be the latest design to keep noise to a minimum. <b>NOTE: <u>The Exhaust &amp; piping must be on side of cab so as not to lengthen CA requirement.</u></b>  |

- \_\_\_\_\_ 1.8 Transmission: Shall be "Allison" HD 4500 RDS with generation 4 electronic controls; provide a marked DDL interface connector located in an accessible position. (**NOTE:** No substitutions will be accepted) Shall include Trans Syend fluid, Safety Lockout, 6-speed transmission with premium utility group 102 and vocational package 150, and have torque converter appropriate for the specified engine and constant drive dual PTO capacity. Shall include an external spin-on type oil filter, electronic oil level sensor and oversized heavy-duty "Hayden" type oil cooler.. **NOTE:** The shift control shall be dash mounted with **electronic fluid check**. The **Odometer** shall not read when the vehicle is in the stationary work mode PTO ( Bed Up / Down ) and the transmission output shaft is turning and alarm shall not sound. All programming shall be included for the body builder.
- \_\_\_\_\_ 1.9 Differentials: Shall be tandem drive, with air operated power divider and differential interlock to include automatic traction control system incorporated into the ABS system. Shall include a red warning light, dash mounted to indicate when differential is in interlock and the power divider is engaged. Shall provide extra heavy-duty 1760 series U-joints, nylon coated drive shafts, and half-cap type U-joint caps.
- \_\_\_\_\_ 1.10 Rear Axles: Shall be a 40,000 pound **minimum** rated "Meritor" #RT-46-160-P tandem with approximate 6:14:1 ratio to provide **maximum** gradability and a 60-65 MPH top speed, and "Stemco" type unitized wet seals. Shall include magnetic drain and filler plugs. **To include Telma FN 72-40 Retarder.**
- \_\_\_\_\_ 1.11 Rear Suspension: Shall be 40,000 pound **minimum** rated "Hendrickson" Haulmaxx HMX 40 with 54" axle spacing.
- \_\_\_\_\_ 1.12 Front Axle: Shall be 16,000 pound **minimum** capacity "Rockwell" #FL-941 (or approved equal) I beam forged steel type construction. Shall include unitized wet seals and maintain less than 3" of tow out when against steering locks. **Please state and document turning radius as bid. Preference will be factored for shortest turn radius chassis offered.**
- \_\_\_\_\_ 1.13 Front Suspension: Shall be 16,000 pound **minimum** capacity, multi-leaf with rubber cushions and include heavy-duty shock absorbers and stabilizer bar.
- \_\_\_\_\_ 1.14 Steering: Shall be hydraulic internal power type with 18" wheel **minimum** and combination tilting/telescoping column.
- \_\_\_\_\_ 1.15 Frame: Shall be full double reinforced 110,000 PSI or equal to increase section modulus to 26.91 inch **minimum** and a RBM of not less than 2,950,000 pounds. Shall be of straight, clean, huck bolted construction. Rear mounted Tow Hooks. **Must have clean frame rails behind cab on both sides.**
- \_\_\_\_\_ 1.16 Emergency Brake: "Anchorlok" or "MGM" type piggyback spring brake on both driver axles with reserve tank for releasing brakes in an emergency. Tank to be mounted ahead of rear axles.

_____	_____	1.17 Service Brake:	Shall be ABS outboard drum type ( <b>NOTE:</b> No substitutions will be accepted) with dust shields, full air system to meet Federal and State brake regulations with anti-skid. Shall have 16.5 cubic feet "Bendix Westinghouse" Tru-Flo Model #750 compressor with air inlet through engine air filter and ADIS or ADIP dryer with extended purge spin on canister, 2,400 cubic inch reservoirs, three (3) tank installation <b>minimum</b> mounted <b>not lower than</b> the cab step, and include manual cable pull type drains accessible to driver on side of cab . Brakes shall be the "S" cam type, with E6 treadle valve, "Park brake on" warning light and automatic slack adjusters at each wheel. <b>NOTE: <u>Wedge brakes are unacceptable and will not be considered.</u></b> <b>Provide Telma electronic ABS Interface.</b>
_____	_____	1.18 Lining Size:	"Rockwell" type front brakes 16.5"x 6" <b>minimum</b> with automatic limiting valve to front brakes. "Rockwell" type "Q" series rear brakes 16.5"x7" <b>minimum</b> .
_____	_____	1.19 Brake Chamber Size:	Shall have 20 cubic inch front and 30 cubic inch rear <b>minimum</b> , each chamber.
_____	_____	1.20 Wheels:	<u>Front:</u> Shall be three (3) 9.00" x 22.5" steel tubeless, "Hub Piloted" type, 10 hole heavy-duty disc with lug nuts for studed wheels, including the spare. <u>Rear:</u> shall be nine (9) 8.25" x 22.5" steel tubeless, "Hub Piloted" type, 10 hole heavy-duty disc, including the spare. All shall be painted black, both sides of rim including the spares.
_____	_____	1.21 Tires:	<u>Front:</u> Three (3) 315/80R22.5" 20 ply rated <b>minimum</b> XZY Michelin tubeless type, highway tread or approved equal. <u>Rear:</u> Nine (9) 12R22.5" 16 ply <b>minimum</b> Michelin X, tubeless type, XDE All Terrain or approved equal. <b>NOTE:</b> Wheels, lug nuts, Tires, must be the rated capacity and meet or exceed specified GVW of chassis.
_____	_____	1.22 Programmable Multi-Plex Electrical System:	To be 12 volt "Leece Neville", 200 ampere <b>minimum</b> alternator with three (3) heavy-duty <b>group 31</b> batteries (180 minutes of reserve capacity) <b>minimum</b> wired parallel to provide a <b>minimum</b> of 2,700 CCA total. Shall include auto-reset circuit breakers in main panel major functions and halogen head lamps. Shall include two (2) post 12 volt marked 30 amp fused "ignition on only" dedicated power terminals, infused panel under hood and auxiliary power module for stop, turn, tail and back up lights. <b>NOTE: Supply SIX (6) extra piloted rocker switches to accommodate the body builder's add-ons. Provide 10 feet of "Key On" 2-way radio fused wiring under front dash.</b> Battery box location under right step area of cab. <u>Must have clean frame rails behind cab on both sides.</u>
_____	_____	1.23 Dash Instruments:	Shall be independent, replaceable, gauge clusters, water temperature, oil pressure, oil temperature, volt/amp meter, fuel level, transmission oil temperature, air pressure and engine hour meter (oil pressure activated). Speedometer and tachometer shall be centrally located in the dash for easy visibility. Shall include an engine shut-down system for low oil pressure, low coolant or high engine temperature. Shall also include a visual and audio low air pressure, low oil pressure and high coolant temperature warning system. Dash mount Telma 4 light LED and on/off switch.

_____	_____	1.24 Cab Features:	Cab shall include these features: Interior light switched from driver's door, fresh air combination heater/defroster, factory installed air conditioner, AM/FM radio, two (2) speed electric intermittent windshield wipers / washers with <b>auto headlight on feature</b> , one (1) each left and right of the following items: sun visor, armrest, map pockets, access grab handles, and retractable mirrors, 16"x7" in size, with 8" convex mirrors with arms to see past 102". The mirrors shall be heated type with <u>left and right side electric adjustable</u> . Shall provide and install a mirror mounted on top of the right door to allow operator to view the ground. Provide two (2) cigar lighter power ports.
_____	_____	1.25 Bumper:	Shall have full width heavy-duty steel factory front bumper. Shall supply two (2) heavy-duty tow hooks or eyes mounted to the frame.
_____	_____	1.26 Additional Equipment:	Shall include but not be limited to the following: heavy-duty turn signal switch with 4-way flasher system, and single air horn with dual trumpets. <u>Shall have self-canceling turn signal controls</u> incorporated into the turn signal switch.
_____	_____	1.27 Color:	To be Fleet White, Dupont #7372, or manufacturer's equivalent.

**TELMA RETARDER:**

. The vehicle shall be equipped with a self air-cooled eddy current Frictionless Braking System, Telma Focal model FN 72-40. The frictionless brake shall be mounted directly to the Meritor RT 46-160 P drive axle. The brake shall weight no more than 408 lb., provide up to 1769 ft.lb. of braking torque, and draw a maximum of 69.4 amps per stage from the vehicle's electrical system. Shall have on / off switch on dash.

. The Frictionless Brake shall be automatically and progressively activated upon depression of the brake pedal. This function shall be achieved by two (2) normally open dual circuit pressure switches connected to the front brake air line and calibrated at 3/5 and 7/10 PSI. Each brake control position shall engage one (1) only of the four (4) brake stages.

. The Telma light display incorporating 4 L.E.D. shall be dash mounted including on/off switch on the vehicle dashboard to indicate the percentage of frictionless brake engagement as well as the vehicle deceleration .

. A speed switch shall be provided to automatically disengage the brake when the vehicle comes to a standstill.

. The Frictionless Braking System shall be wired so as to activate vehicle brake lights upon engagement of the first frictionless brake stage.

. Brake application shall occur within 200 milliseconds of frictionless brake control activation in order to maximize usage during stop & go and emergency type of operation.

. Brake full deactivation shall occur within 200 milliseconds to avoid parasitic loading to the vehicle during acceleration or coasting and to avoid any interference with the proper functioning of the Antilock Braking System, should the chassis be so equipped.

\*\*\* For vehicles equipped **with Anti-lock Brakes, a Telma electronic ABS interface** shall be provided to interrupt the frictionless brake operation no more than 200 milliseconds after the ABS logic is activated. The ABS interface shall also include a system to automatic ally and progressively reactivate the different brake stages to avoid new ABS logic events.

. Frictionless brake size shall be certified by the component manufacturer for GVW, tire size, and axle ratio ratings of the finished truck.

Elk Grove Village, IL 60007, USA [www.TelmaUSA.com](http://www.TelmaUSA.com) (800)797-7714

**NOTE: Warranty issues – after notification, Truck must be picked-up with in 24 hours, repaired and returned to the City Garage at Dealers expense during full Warranty period including extended Power Train Warranty.**

BIDDER COMPLIANCE  
YES NO

DUMP BED GENERAL SPECIFICATIONS

_____	_____	Paint Application:	Prior to paint, all welds and body must be sand blasted, cleaned, prepped, caulk all open seams with high grade silicone, no weld splatter. In all cases, painting shall be done strictly in accordance with the paint manufacturer's directions. Bare metal shall be conditioned with the recommended wash, rinsed, dried, and immediately primed. The top coat shall be free from irregularities such as "runs" or "sags" on any large surface. Sufficient time shall be allowed between coats to assure thorough drying of previously applied paint. (NOTE: Paint shall be of a catalyzed mixture for maximum durability.)
_____	_____	Advertisement:	<u>No</u> decals, painted signs or dealer logos of any kind will be allowed anywhere on the equipment. Only the standard manufacturer's logos or other markings are acceptable on any part of the cab, chassis or body.
_____	_____	Wiring and Construction:	All wiring shall be performed <u>without the use</u> of AScotch Lok® or common type crimp connectors for wire taps. All connections shall be of molded factory type, Swage compression type or soldered with weather tight sealed shrink covering. All exposed wires shall be enclosed in appropriate loom and secured so as not to become damaged. Note: Any additional welding to the chassis during installation of equipment and accessories is <u>unacceptable</u> . All equipment and accessories shall be securely fastened to the vehicle by the

appropriate SAE Standard Grade of nuts and bolts (NOTE: Metric will not be accepted).

\_\_\_\_\_

Additional Items:

Upon delivery the successful bidder shall be required to provide a complete set of replacement filters where needed for all special equipment including hydraulic circuits, excluding cab and chassis drive line.

\_\_\_\_\_

Legal  
Requirements:

Shall meet or exceed all local, State and Federal legal requirements including Cal-OSHA, California Emissions and California Division of Forestry requirements.

## 2.0 11-12 YARD ELLIPTICAL "RELIANCE" DUMP BODY WITH HOIST & MOUNTING

- 2.1 Type & Size: Shall be no more that 15 feet long, 8 feet wide, have low sides, and 11 cubic yard minimum capacity with cab guard front header and 36 inch air lift tailgate with lift cylinders on top. NOTE: Side rail of body shall be no more than 86 inches from the ground when mounted on chassis.
- 2.2 Construction: Body shall be AR 400 Brinell sides and floor with minimum 175,000 tensile steel throughout. Shall have 1/4 inch thick floor, and sides with one piece elliptical construction the full length of bed. Sides shall be of the continuous radius type with the floor, and have smooth inner walls. All outside edges to be sloped so as not to carry material, and have no vertical side post. Shall include grab handles on both sides at front of bed and above the front axle of the tandem. Shall provide steps above the fender and at each front corner of the body that will allow gravel and rock drainage. Shall have front panel constructed from 3/16 inch T-1 steel and be of flat front design with No Doghouse. Top rails shall be 3" X 3" X 1/4" continuous weld inside and out square tubing with 2" X 8" brackets for bang boards when needed. Bed shall be of continuous flush weld design inside and out with no overlap, including front header to tub. Must be form fit. Shall include tie downs along both sides and on tail gate. Actual number and location to be approved by City. NOTE: Half round body construction is unacceptable.
- 2.3 Longitudinal: Shall be heavy duty to support the maximum rated load with sufficient safety, using as few cross members as possible and maintain lowest profile possible. Cross members shall be installed a minimum 1/4 inches below floor level.
- 2.4 Front Header & Cab Guard: Shall be 3/16 inch T-1 steel full width and height. Shall include 1/4 cab shield as part of head board.
- 2.5 Bolster: Shall have rear bolster constructed from 3/16 inch T-1 steel.
- 2.6 Tailgate: Shall be 3/16 inch T-1 steel, construction with smooth inner wall. Shall be two-way tailgate 6" higher than the top of the sides. Tailgate shall be vertically hung, cam followers for TSE maxi pot, with cab protected switch controlled air release with bottom adjustable chains. Shall include (1) one batch door, manually operated with variable stops provided. The batch door shall be as large as possible, and have a clear opening of 18" X 15" when open. Shall have a red warning light in cab when tailgate is open. Note: Shall also be 36" air lift gate with 4" cylinders with protected switch on dash.
- 2.7 Spreader Apron: Shall be 3/16" T-1 steel, fixed type, full width, 12" deep, with gusset type braces and end plates. Shall include plugs attached to high tensile 5/16" spreader chains.
- 2.8 Hoist: Shall be 135" custom 4-stage inverted, mounted on front of header with No Doghouse. Cylinder shall be a 6" minimum diameter, achieve a 50 degree dumping angle, and reservoir shall be frame mounted on left side with oil level site gauge. Shall include easily operable safety prop that can be reached from ground by operator, and a red raised warning light at operator's panel.
- 2.9 Bed Control: The hoist raise and lower control shall be cable / handle controlled. Note: The hoist raise and lower control shall be mounted between driver's door and seat.
- 2.10 PTO: Shall be air shift (Hot shift type) with pump married to PTO. All controls shall be mounted to the left side of the dash area in cab with guarded switches, and a in gear warning light and free fall control.
- 2.11 Mounting: Bed shall be mounted so the normal centered load will provide 28-30% on the front axle of chassis. Pivot hinges shall be heavy duty cast double type hinges, one on each side of frame, with heavy duty 23@ pins and have grease zerk fittings.
- 2.12 Fenders: Shall have 14 gauge steel fenders over tandem with contoured front and rear ends with half round (grip type) step above fenders, center of front driver, mounted so as to allow gravel to drain and not to collect on step.

- 2.13 Lights: Shall be LED type mounted and guarded from breakage. They shall include, but not be limited to the following: two (2) combination tail/turn/ stoplights; two (2) back up lights; one (1), three lamp cluster, corner and clearance lights.
- 2.14 Mud Flaps: Shall have full mud flaps installed, separately hung front of fender, heavy duty air lift type rear of fenders to operate automatically when tailgate is opened, and have a switch in the cab to raise flaps at any time, to allow independent control, and be of the reinforced anti-sail type.
- 2.15 Color: Shall be one color, Fleet White DuPont 5000" (or acceptable equal) to match cab and chassis factory color. (See Paint Application on Pg. 3)
- 2.16 Miscellaneous Equipment: Shall have pulltarps; 8.5" unitized super shield model system, using Asphalt Fabric with side flaps, include 4.5" ABS (load climber) rollers to allow pullrod to negotiate raised material, and appropriate plated D ring tie downs. Shall include two (2) lockable, T-handle type handle aluminum tool boxes, large as possible one (1) on each side of frame below the front of the bed ahead of rear axle. Boxes to be at least 18"X18"X48" and be keyed alike. Shall have full self-cleaning cat walk, full length of fenders on both sides, constructed of half-round grip step type metal. Shall include four (4) wheel chocks (2) each side, secured in place along frame where convenient for operator=s use. Shall include two (2) shovel and one (1) broom bracket on front header or under bed, exact location to be approved by the City of Santa Rosa.
- 2.17 Hitch: Shall have a Premier No. 580 pintle (No substitutions will be allowed), with installed height of 25" measured to the bottom inside of open pintle eye when unladen, and be wired for both 6 and 7 wire standard trailer plugs. The 6 wire plug shall be through a Midland No. 23602 (No substitutions will be allowed), with connector mounted to the left of the pintle. The 7 wire plug for ABS trailers shall be on the right side of the pintle. Shall include a transistorized electronic brake controller installed and wired through the center A pin of connector of the trailer plug. Shall include two (2) heavy duty D ring type safety chain hook ups installed on 15" minimum and 18" maximum centers, one each side of pintle. Shall include connecting brake controls and air lines, one on each side of pintle, for air brake trailers, and glad hand protectors secured to glad hands. NOTE: Mounted hitch must not exceed 6" rear of the front of apron when in roadable position.
- 2.18 Safety Requirement: Shall include an electronic back up alarm, body safety prop, and red bed raised and gate open warning light in cab. All controls and switches to permanent Engraved labels.