



Specification for:
**Freightliner M2, 106 4 Door, Diesel, 4x4
Step-Side Body, Alum, 168**

Submitted To:
**Bill Davidson,
Skeeter High Water Rescue Truck
201 Cercon Hillsboro, TX 76645**

Specification 2538
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Prepared by:
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Skeeter Brush Trucks, LLC**

Proposal

We are pleased to submit the following specifications to you for a **Skeeter High Water Rescue Vehicle** per your request for quotation. The following paragraphs will describe in detail the apparatus proposed. Loose equipment not specifically requested will not be provided.

Skeeter Brush Trucks, LLC, a wholly owned company of Siddons-Martin Emergency Group, is a custom fire apparatus manufacturer specializing in Brush-Grass-Wildland fire fighting vehicles. Our 22,000 square foot manufacturing facility is located in Hillsboro, Texas and is operated by some of the most experienced wildland firefighting vehicle manufacturing individuals in the business. Our performance and quality minded approach to manufacturing generates some of the most reliable vehicles in the industry, thus yielding a very high return on investment.

Skeeter Brush Trucks, LLC, provides the very best sole source product and service solutions to the fire service. Skeeter Brush Trucks LLC carries \$1,000,000 in liability insurance, with \$3,000,000 in excess umbrella liability insurance. The opportunity to place this Skeeter Brush Truck in your department is greatly appreciated and we are certain it will fulfill your every requirement. We look forward to working for you.

Siddons-Martin Emergency Group sales and service professionals are dedicated and experienced in all aspects of the fire apparatus business. Our core business is the sales and service of fire apparatus.

Service Advantage

Siddons-Martin Emergency Group currently staffs eleven (11) service centers located throughout Texas, Louisiana, and New Mexico, and maintains a fleet of service vehicles to provide on-site service of your SKEETER Brush Truck. The Siddons-Martin Emergency Group Service Department is dedicated to the fire service and provides service and maintenance exclusively on fire apparatus. Siddons-Martin Emergency Group employs numerous EVT trained technicians and is constantly engaged in continuing factory and EVT training classes and programs in order to stay abreast of the rapidly improving technologies incorporated within today's fire apparatus. SMEG is an authorized sales and service dealer for Pierce Mfg., and an authorized service center for Waterous, Hale, and Darley fire pumps, and an OEM distributor for all major fire equipment accessories.

Construction and Design

Skeeter Brush Trucks body and component designs are engineered. Body construction (unless otherwise noted) is done in-house, using the best in design and materials. RBM's for body frames are among the very highest in the industry. Wiring harnesses are custom manufactured in-house, and meet or exceed OEM standards. All wiring is protected, run through conduit, and distributed through one, easily accessed, sealed control box.

Chassis Operation Manual

The chassis manufacturer shall provide one (1) operational manual. This manual may be in either a notebook type binder, with reference tabs or a compact disk (CD) with all of the printed material in an electronic format (Adobe Acrobat PDF).

Fire Pump Operational Manual

A fire pump service, instruction, and operational manual shall be supplied. This manual may be in either a notebook type binder, with reference tabs or a compact disk (CD) with all of the printed material in an electronic format (Adobe Acrobat PDF).

Foam System Operational Manual

A foam system service, instruction, and operational manual shall be supplied. This manual may be in either a notebook type binder, with reference tabs or a compact disk (CD) with all of the printed material in an electronic format (Adobe Acrobat PDF).

Apparatus Operational Manuals

The fire apparatus manufacturer shall provide two (2) operational manuals. These manuals may be in either a notebook type binder, with reference tabs or a compact disk (CD) with all of the printed material in an electronic format (Adobe Acrobat PDF).

100044.3 - PAINT

1. Cab Color: Pierce Red 90
2. Cab Secondary Color: N/A
3. Description: Solid Pierce Red 90
4. Bumper Color: Pierce Red 90
5. Wheel Color: Polished Aluminum
6. Body Color: Polished Aluminum

100489.3 - BED LINER

There shall be commercial grade bed liner sprayed over the upper body surface and to stepping surfaces.

100507.4 - CHASSIS SPECIFICATIONS

One (1) Freightliner M-2 106 Series four (4) door cab and chassis

GVWR: 33,000#

Frame: steel channel type, reinforced

Wheelbase: 211" Cab to Axle: 102"

Front Bumper: painted

Tow Hooks: front

Front Axle: Meritor MX-12-120, 12,000#, w/heavy duty front shocks

Front Suspension: 12,000#

Front Tires: two (2) Michelin XZY-3 385/65R22.5 all terrain

Front Wheels: aluminum disc wheels

Mud Flaps: front mud flaps

Rear Axle: Meritor RS-21-160 21,000# R-Series Quiet Ride

Rear Suspension: 21,000#

Rear Tires: two (2) Michelin XZY-3 385/65R22.5 all terrain

Rear Wheels: two (2) aluminum disc wheels

Ratio: 5.63

Air Brake System: equipped with air-operated brakes and an anti-lock braking system (ABS), air dryer, manual air drains

Engine: CUM L9 300EV HP @ 2000 RPM, 2200 GOV RPM, 860 LB/FT @ 1300 RPM

Engine Exhaust Brake: exhaust brake

Cooling System: -30 degrees Fahrenheit

Exhaust System: horizontally mounted right side

Fuel Tank: 50-gallon

DEF Tank: 6 gallon

Fuel Filter: fuel/water with dash mounted alarm, indicator light

Transmission: Allison EVS 3000

Transfer Case: Meritor MTC 4210XL 2 speed

Steering: power

Batteries: three (3) with total 2280 CCA 12-volt batteries

Alternator: 270-amp

Cab: four door, with tilting fiberglass front hood assembly

Cab accessories and features shall include:

- 1) Tinted glass in all windows
- 2) Amber DOT edge of roof clearance/marker lights
- 3) Gray interior trim with cloth upholstery
- 4) Gray vinyl floor mat
- 5) Dual sun visors
- 6) Electric windshield washer
- 7) Electric windshield wipers with two speed switch with wash and intermittent
- 8) Exterior handrails at each cab door
- 9) High output heater and defroster system with electronic controls
- 10) Dual air horns
- 11) Halogen headlights
- 12) Front turn signal lamps

Power Windows

Cab Paint: single color

Climate Control: heater, defroster, and air conditioning

Cab Mirrors: two (2) extended style mirrors with convex

Cab Instruments: standard metric instruments

Driver's Seat: individual bucket style seat with air suspension and three (3) point safety harness

Passenger Seat: individual bucket style with mechanical suspension seat and three (3) point safety harness

Rear Seat: Bench seat with harnesses.

Printed Manuals: one (1) printed chassis operation manual

337216.3 - VENT TUBE RELOCATION

The drivetrain axles, DEF vent, and fuel tank shall be equipped with extended vent tubes to facilitate fording up to 40".

337215.2 - CHASSIS LIFT KIT

The chassis shall have a 5" suspension lift kit installed to increase fording depth.

100444.1 - BUMPER EXTENSION

There shall be a custom fabricated steel bumper extension that extends the bumper 24" forward of its original position. It shall be fastened with grade 8 hardware.

203811.1 - BUMPER PLATFORM

There shall be a 24" polished aluminum diamond plate from the OEM grill to rear of the bumper extension and it shall be properly supported to hold up to 250lbs.

NOTE: This is NOT intended for personnel use while vehicle is in motion. [More](#)

100057.1 - SPARE TIRE MOUNT

There shall be no spare tire mount

100516.1 - CUSTOM FABRICATED BUMPER AND GRILL GUARD

The front of the vehicle shall be equipped with a custom fabricated, severe service, 1/4" aluminum channel shaped bumper assembly. It shall be bolted in place to the front frame extensions, and angled back at corners to width of fenders. It shall be 99" wide, 14.5" high, and 3.75" deep. The side panels shall be 34" from front of bumper to fender.

The unit shall be brushed aluminum.

The bumper shall be equipped with a custom fabricated, severe service, tubular aluminum grill guard, welded in place. It shall be fabricated out of 2" sch 40 radius bent aluminum tubing. It shall extend 34" above the top of the bumper assembly, and be 99" wide. There shall be wing guards to protect the headlights, which shall be 24" above the bumper. A horizontal brace shall run parallel to the bumper.

The unit shall be brushed aluminum.

100058.1 - REAR MUD FLAPS

The chassis shall be supplied with mud flaps with the manufacturer's logo. The mud flaps shall be installed behind the rear wheels.

100064.1 - FRONT BUMPER SKID PLATE

A .3125" skid plate will be installed from the bumper area extending below the bumper extension and chassis radiator area.

100065.1 - TRANSFER CASE SKID PLATE, LONG

A removable heavy .250" aluminum skid plate assembly shall be installed to protect the oil pan and transfer case.

100109.1 - NO-CAB STEPS INSTALLED

There shall be NO cab steps installed on the chassis.

100085.1 - CUSTOM FABRICATED CONSOLE AND SWITCH PANEL

A custom fabricated aluminum electrical console and enclosure shall be located between the driver's and passenger's seats. It shall house the siren, switches, cup holder, and auxiliary equipment.

100543.1 - 12 VOLT POWER SOURCES

Three (3) 12 volt plug-in utility power outlets rated at 15 amps shall be provided in cab. One (1) shall be installed next to the factory outlet in the dashboard and two (2) shall be installed on the rear console vertical face next to the radio speaker.

100662.1 - WIRELESS WINCH CONTROLLER

A Warn 90287 wireless winch controller shall be included. It shall control the winch from up to 50' away, and shall WARN truck/SUV winches with a five-wire control pack. It shall have the following features:

Easy plug-and-play installation

Sealed for protection against the elements

Activation sequence guards against accidental power-ups

Kit includes wireless transmitter, receiver, holster, lanyard and mounting hardware [More](#)

100082.1 - WINCH -- FRONT MOUNTED

A Warn Winch Company Model 16.5ti PN68801 16,500# capacity 12-volt electric powered winch shall be permanently installed at the front center bumper extension area . The unit shall include the following:

- a) 16,500# rated load
- b) Thermo-metric indicator for motor temperature monitoring
- c) Cable roller guide assembly
- d) 90 feet of 7/16" diameter galvanized cable and hawse fairlead & safety hook assembly shall be supplied.
- e) Winch speed shall be constant with forward and reverse modes controlled with a push button device at the end of a 12

feet (12') minimum control cable which connects to the winch through a weatherproof receptacle.

100178.1 - REAR RECEIVER

The rear of the chassis shall be equipped with one (1) square steel tube receiver assembly for high or low angle rescue, trailer use, and winch applications. It shall be the same size as a Class III trailer hitch and shall be attached to the chassis frame assembly. The receiver shall be rated at approximately 10,000#.

The rear receiver assembly shall be equipped with two (2) heavy duty rear tow loops, one (1) each side.

100598.1 - NO -- PUMP

No pump

100599.1 - NO -- VALVES

No valves

100470.1 - NO PUMP EXHAUST

100600.1 - NO WATER TANK

100641.1 - CUSTOM STEP SIDE ALUMINUM BODY

The body will be a custom fabricated severe service step-side type, constructed of all aluminum. The body shall be 168" long by 100" wide, designed for a 84" cab to axle dimension. The body shall be specifically designed and engineered for off-road wildland firefighting.

FLAT-BED SUB-STRUCTURE

The body shall have 8" x 1.75" structural aluminum channel main frame rails. The body frame rails shall be isolated from the truck frame by .500" industrial isolators.

FLAT-BED CROSS-MEMBER SUB-STRUCTURE

The cross-members shall be 3" x 2 5/16" structural aluminum I beams with cross-members on 12" centers.

FLAT-BED MOUNTING

The body shall be bolted to the chassis frame rails at the rear end of the frame. There shall be brackets installed at the middle of the body frame to prevent side to side movement. The body shall be spring mounted at the front of the body frame. The flexible mounting system shall allow for body/chassis flexing during extreme off road conditions.

SQUARE CORNERS -- FLAT-BED

The front corners of the flat-bed body shall be square.

HEADACHE RACK

The front of the body shall have a 2" formed aluminum tube headache rack. The rack shall extend the full width of the body and be attached to the front body corners. The assembly shall extend above the chassis cab and have mounting platform for installation of the light bar and two work lights. Wiring for the lights will be placed inside the tubing for protection. The headache rack shall have four (4) vertical 2" tubes for extra strength.

WALKWAY

The front of the body shall have a 24" front to rear by 96" right to left walkway in front of the water tank. The walkway shall allow access from side to side of the body to have a NFPA compliant walkway surface.

FUEL FILLER

The fuel filler tube and cap shall be installed at the left hand side, rear of the body.

FENDER PANELS

The lower portion of the flat-bed body shall have fender panels over and aft of the rear wheel panel area. The panels shall be constructed of polished aluminum tread plate. The wheel well openings will be cut out to conform to the wheels.

SIDE STEP CUBICLE

An approximate 24" wide x 24" high x 20" deep cubicle shall be constructed of polished NFPA compliant aluminum tread plate on the driver's side and passenger's side in the front of the body.

HINGED SAFETY GATE ASSEMBLY

The step-side cubicles on the driver's and passenger's side in the front of the body shall each be equipped with a swing in safety lock gate constructed out of 1" aluminum tubing. The gates shall be locked in the closed position by a locking pin and stop bracket and shall have a hydraulic cylinder to hold the gate either in the fully open or the fully closed position.

REAR BODY PANEL

A vertical body panel shall be installed at the rear of the body constructed of .190" smooth aluminum. The panel shall house the running lights, taillights, back-up lights, and emergency lights. The body panel shall be angled to allow for a 30 degree angle of departure.

PROTECTIVE RAILS

The upper body area shall be protected with radius corner 1" diameter aluminum tube railing assembly installed around the top of the body. The corners of the body shall have vertical risers space in critical areas. The railings shall act as protection for the upper body structures when off road in heavy brush conditions. The rear upper body corner rails shall house the upper emergency lights and work lights.

100126.1 - HEADACHE RACK MESH INSERT

Headache rack shall have expanded metal insert covering all open areas.

337214.3 - BODY COVER

The rear body assembly shall have a red vinyl tight woven cargo tarp covering the overhead area of the body interior.

191732.3 - HYDRAULIC LIFT GATE

A 96" wide x 84" deep hydraulic lift gate shall be installed at the rear of the apparatus. It shall have provisions for hand rails and wheel chair locks.

191733.2 - INTERIOR BODY BENCH SEATS W/STORAGE

There shall be two (2) bench seats installed on the rear flatbed body, one (1) each side. They shall be installed parallel to the body sides. They shall be hinged and allow for storage under the lid. The lid shall be covered in low density foam to provide padding.

195886.3 - WHEEL CHAIR BRACKETS

There shall be provisions in the floor of the center portion of the body for wheel chair tie downs. They shall facilitate the stability of wheel chairs, and keep them stationary.

100158.1 - NO -- COMPARTMENT, REAR, CENTER UNDER-BODY

100163.5 - GATE DEPLOYMENT INDICATOR

The lift gate shall have a flashing light and audible alarm installed in the center console and at the rear of the body indicating the lift gate is in operation.

100164.1 - DOOR AJAR LIGHT

A "door ajar" warning light shall be installed on cab dash. The light shall be flashing red LED light with a clear lens.

100542.1 - CEILING FANS

Two (2) 12 volt electric cab fans shall be installed in the rear of the cab, one (1) each side.

100325.2 - ELECTRICAL ENCLOSURE

An electric wiring enclosure for the 12 volt wiring shall be installed in the cab with an access panel. The dimensions of the enclosure shall be approximately 20" high, 14" wide, and 4" deep.

100326.1 - 12 VOLT ELECTRICAL SPECIFICATIONS

The following describes the low voltage electrical system on the apparatus including all panels, electrical components, switches and relays, wiring harnesses and other electrical components. The apparatus manufacturer shall conform to the latest Federal DOT standards, current automotive electrical system standards and the applicable requirements of the NFPA.

Wiring shall be stranded copper or copper alloy conductors of a gauge rated to carry 125 percent of the maximum current for which the circuit is protected. Voltage drops shall not exceed 10 percent in all wiring from the power source to the using device. The wiring, wiring harness and insulation shall be in conformance to applicable SAE and NFPA standards. The wiring

harness shall conform to SAE J-1128 with GXL temperature properties. Exposed wiring shall be run in a loom with a minimum 289 degree Fahrenheit rating. Wiring looms shall be properly supported and attached to body members. Electrical conductors shall be constructed in accordance with applicable SAE standards, except when good engineering practice requires special construction.

All wiring connections and terminations shall provide positive mechanical and electrical connections and be installed in accordance with the device manufacturer's instructions. When wiring passes through metal panels, electrical connections shall be secured with mechanical type fasteners and rubber grommets

Wiring between cab and body shall be split using connectors or enclosed in a terminal junction panel allowing body removal with minimal impact on the apparatus electrical system. Connections shall be crimp-type with heat shrink tubing with insulated shanks to resist moisture and foreign debris such as grease and road grime. Weather resistant connectors shall be provided throughout the system.

Electrical junction or terminal boxes shall be weather resistant and located away from water spray conditions. When required, automatic reset breakers and relays shall be housed in the main body junction panel.

There shall be no exposed electrical cabling, harnesses, or terminal connections located in compartments, unless enclosed in an electrical junction box or covered with a removable electrical panel. Wiring shall be secured in place and protected against heat, liquid contaminants and damage.

Low voltage overcurrent protective devices shall be provided for the electrical circuits. The devices shall be accessible and located in required terminal connection locations or weather resistant enclosures. Overcurrent protection devices shall be automatic reset type suitable for electrical equipment and meet SAE standards. All electrical equipment, switches, relays, terminals, and connectors shall have a direct current rating of 125 percent of maximum current for which the circuit is protected. Electro-magnetic interference suppression shall be provided in the system as required in applicable SAE standards.

The electrical system shall include the following:

Electrical terminals in weather exposed areas shall have a non-conductive grease or spray applied. All terminal plugs located outside of the cab or body shall be treated with a corrosion preventative compound.

All electrical wiring shall be placed in a protective loom or be harnessed.

Exposed connections shall be protected by heat shrink material and sealed connectors.

Large fender washers shall be used when fastening equipment to the underside of the cab roof and all holes made in the roof shall be caulked with silicone.

Electrical components installed in exposed areas shall be mounted in a manner that will not allow moisture to accumulate inside.

A coil of wire must be provided behind an electrical appliance to allow them to be pulled away from mounting area for inspection and service work.

All lights in a weather exposed area that have their sockets shall have corrosion preventative compound added to the socket terminal area.

100327.1 - ELECTRICAL HARNESS AND WIRING

All wiring shall be hidden, enclosed, or protected under the body in protective material, or within the apparatus body components. In addition, split loom conduits shall be installed and enclosed, suitably secured and protected against heat and physical damage.

100091.1 - BATTERY SWITCH - MASTER DISCONNECT

A rotary type master disconnect switch shall be provided in the cab within easy reach of the driver. The switch shall have a switch plate with Off/On label.

100328.1 - DOT IDENTIFICATION LIGHTS

All LED identification lights shall be installed on the vehicle as required by applicable highway regulations.

100329.1 - LICENSE PLATE MOUNTING

An LED license plate light shall be installed on the rear vertical wall of the body.

100330.1 - BRAKE, TURN, TAIL LIGHTS

Two (2) Whelen M6 Series Model M6BTT 4-5/16" x 6-3/4" brake, turn, tail lights with M6FC chrome flanges shall be provided. The warning lights shall incorporate Linear Super-LED and Smart LED technology. The lighthouse configuration shall consist of

18 red Super-LEDs and a clear optic polycarbonate lens. The lighthoods shall be surface mountable via two screws.

The lighthoods shall utilize an optic collimator and a chrome vacuum metalized reflector for maximum illumination. The lighthouse shall include 164 flash patterns including: a variety of CA Title 13 compliant, sinkable, left/right, top/bottom, in/out, and steady burn. The lighthoods shall have the Whelen exclusive NERM (Non-Emergency Recognition Mode) feature.

The lens/reflector assembly shall be wet sealed and resistant to: water, moisture, dust, and other environmental conditions. The outer lens shall have a hard coating applied to increase strength and ensure longevity. The light engine shall be installed at the rear of the unit and be completely sealed. The pc board shall be conformal coated for additional protection.

The lights shall be furnished with five 6" wire pigtails, a Santoprene rubber gasket and the #M6FC chrome flanges shall be included for installation.

100331.1 - BACK-UP LIGHTS

Two (2) Whelen M-Series, 4" x 6" rear LED back-up lights shall be installed.

100096.1 - TRAILER PLUG

Wiring shall be provided at the rear of the apparatus for the towing of an auxiliary trailer. A 12 volt seven (7) pin electrical connector shall be wired to the chassis stop, running, and turn lights.

100712.1 - OFF-ROAD LIGHTS

There shall be two (2) FRC SoBrite 6" LED lights installed on front bumper/grille guard.

100071.2 - GROUND LIGHTS - FRONT BUMPER

Two (2) Rigid LED ground lights shall be installed under the front bumper, one (1) on each side of the apparatus, wired to a switch in the cab.

100074.2 - GROUND LIGHTS - CAB STEPS

Four (4) Rigid LED ground lights shall be installed under the cab step area in compliance with NFPA standards, one (1) on each side of the apparatus, wired to a switch in the cab.

100182.2 - GROUND LIGHTS - UNDER REAR STEP

Two (2) Rigid LED ground lights shall be installed under the rear step area, one on each side of the apparatus.

100184.2 - WORK LIGHTS

Eight (8) Grote #61E41 LED step lights with clear lens shall be installed, wired to switch on the Cencom. Location shall be: two on each horizontal support tube on bed.

100318.1 - FRONT BUMPER SCENE LIGHTS

A Rigid Manufacturing E series 12031 20" spot/flood light shall be installed. The LED scene lights shall incorporate clear LED's with a clear optic polycarbonate lens for maximum illumination.

Location shall be: front bumper/grille

100383.1 - SCENE LIGHTS

Eight (8) Rigid Manufacturing Dually 20211 scene lights shall be installed. The LED scene lights shall incorporate clear LED's with a clear optic polycarbonate lens for maximum illumination.

Location shall be: Two (2) outward facing, each side of body, two (2) rear facing, two (2) headache mounted.

100438.1 - GPS UNIT

A Garmin NUVI 57 LM dash mounted GPS unit shall be installed. It has a 5" display, lane assist with junction view, displays speed limit with accurate arrival time, and spoken turn-by-turn directions.

100108.5 - CAMERA SYSTEM

One (1) camera system shall be furnished utilizing three (3) cameras which provides a wide field of view and picture quality. A sealed camera enclosure shall be utilized along with electronic connections. The color monitor shall be installed in cab.

One (1) camera shall be flush mounted on the rear bed panel.

One (1) camera shall cover the interior of the body, and be installed on the headache rack.

One (1) camera shall be mounted atop middle rung of grille guard.

100103.1 - WIRELESS INTERCOM SYSTEM

A four (4) position FireCom wireless headset system shall be installed in the chassis electrical console with wireless headset station located at the driver, office, and both rear seating locations. The headsets shall be under the helmet type wireless headsets with charging ports at stowing location. The intercom system shall be installed to allow interfacing of one (1) mobile radio. There shall be two(2) radio interface capable headsets, and two (2) intercom only.

NOTE: SKEETER BRUSH TRUCKS WILL NOT INTERFACE THE MOBILE RADIO TO THE INTERCOM SYSTEM. THIS PROCESS WILL NEED TO BE DONE BY THE CUSTOMER SELECTED RADIO SHOP AFTER DELIVERY OF THE UNIT.

100324.1 - BACK-UP ALARM

One (1) Buyers #BA107 back up alarm shall be installed.

100312.1 - ELECTRONIC SIREN

One (1) Whelen, Model #CCSRN3 CENCOM siren and twenty-one (21) auxiliary switches with noise canceling microphone shall be provided. Siren head will be mounted on the center console in easy reach of the driver.

100313.1 - SIREN SPEAKER

One (1) Whelen Model #SA315P Projector Series siren speaker shall be provided with bracket. The 100 watt siren speaker shall be designed in a black nylon composite housing with 123 decibel rating.

Location shall be: Behind the front bumper.

100310.1 - MOUNTING OF LIGHT BAR WITH PROTECTIVE GUARD

The lightbar shall be mounted on the headache rack shelf with an aluminum brush guard protective assembly.

100309.1 - LIGHTBAR

A Whelen Legacy low profile Super-LED NFPA lightbar shall be installed. The 54" lightbar shall be designed to meet the minimum clearing requirements for Zone A Upper. The internal components of the lightbar shall be housed within a two piece extruded aluminum base/top. The outer shell shall be clear optic polycarbonate lenses designed to maximize light output and shield against environmental elements.

The lightbar shall utilize snap-in brackets to hold in the lighthoods. The brackets shall give the end user the ability to make quick repairs. The lightbar shall have all solid state components. The lightbar shall have two wire harnesses exiting the unit: one (1) 17 conductor 22 gauge control cable which controls all internal light functions; and one (1) 2 conductor 10 gauge cable for main power and ground. Each cable shall be 15' long.

The lightbar shall have four (4) red Linear Super-LED corner modules to provide off angle protection for the front and rear of the vehicle. Each corner module shall consist of twelve (12) Super-LEDs mounted within a vacuum metalized parabolic reflector. The corner module shall also utilize an optic collimator for maximum light output. The twelve (12) LEDs shall be mounted in one straight line.

The solid state I/O board shall be microprocessor controlled. The I/O board shall have built-in reverse-polarity protection and output-short protection. The board shall have the ability to flash sixteen (16) LED warning lights. There shall be a data bank of 13 Scan-Lock flash patterns including steady burn. The board shall also have outputs to add takedown and alley lights. Low power and cruise light function shall also be included. The cruise light function shall allow the user to employ the four (4) corner modules as marker courtesy lights.

The lightbar shall include clear "Take Down" and "Alley Lights".

The lightbar shall have an amber "Traffic Advisor" built into the rear portion of the lightbar.

100315.2 - NFPA WARNING LIGHTS

ZONE A -- LOWER FRONT WARNING LIGHTS

Two (2) Whelen M-7 Series Model #M7RC 3" x 7" warning lights and a chrome flange shall be in the front forward facing area of the front bumper. The warning lights shall incorporate Linear Super-LED and Smart LED technology. The lighthouse

configuration shall consist of 18 red Super-LEDs and a clear optic polycarbonate lens. The lighthoods shall be surface mountable via two screws. The lighthoods shall utilize an optic collimator and a chrome vacuum metalized reflector for maximum illumination.

ZONE B AND D -- INTERSECTION LIGHTS

Two (2) Whelen M-7 Series Model #M7RC 3" x 7" warning lights and a chrome flange shall be installed on bumper extension, as far forward as possible. The warning lights shall incorporate Linear Super-LED and Smart LED technology. The lighthouse configuration shall consist of 18 red Super-LEDs and a clear optic polycarbonate lens.

ZONE B AND D -- LOWER SIDE REAR CORNER WARNING LIGHTS

Two (2) Whelen M-7 Series Model #M7RC 3" x 7" warning lights and a chrome flange shall be installed in lower rear side corner body area. The warning lights shall incorporate Linear Super-LED and Smart LED technology. The lighthouse configuration shall consist of 18 red Super-LEDs and a clear optic polycarbonate lens.

ZONE B AND D -- UPPER SIDE REAR WARNING LIGHTS

Two (2) Whelen M-7 Series Model #M7RC 3" x 7" warning lights and a chrome flange shall be installed in the upper rear body side panel. The warning lights shall incorporate Linear Super-LED and Smart LED technology. The lighthouse configuration shall consist of 18 red Super-LEDs and a clear optic polycarbonate lens.

ZONE C -- UPPER REAR WARNING LIGHTS

Two (2) Whelen M-7 Series Model #M7RC 3" x 7" warning lights and a chrome flange shall be installed in the upper rear corner of the handrails. The warning lights shall incorporate Linear Super-LED and Smart LED technology. The lighthouse configuration shall consist of 18 red Super-LEDs and a clear optic polycarbonate lens.

ZONE C -- LOWER REAR WARNING LIGHTS

Two (2) Whelen M-7 Series Model #M7RC 3" x 7" warning lights and a chrome flange shall be lower rear of body. The warning lights shall incorporate Linear Super-LED and Smart LED technology. The lighthouse configuration shall consist of 18 red Super-LEDs and a clear optic polycarbonate lens.

100332.1 - CAB REFLECTIVE LETTERING

The cab lettering shall be Scotchlite reflective material, shaded in black. A quantity of up to fifty (50) three inch (3") letters shall be installed as directed by Fire Department.

100335.1 - CUSTOM GRAPHICS

The apparatus shall be provided with two (2) custom designed sign gold graphics, emblems, or seals. The installation shall be designed primarily with letters and numbers as specified. The purchaser shall approve of the design graphics to installation.

100337.1 - CAB AND BODY STRIPING

The cab and body shall have a straight Scotchlite reflective stripe applied horizontally. The stripe shall be a 4" minimum in width and be applied horizontally around the cab and body in accordance with NFPA standards. The purchaser shall specify the color and location of the stripe.

100341.1 - WARNING LETTERING: "KEEP BACK 500 FEET"

The rear of the vehicle shall be equipped with a 3" reflective "KEEP BACK 500 FEET" sign. The sign shall have reflective lettering and shall be installed as directed by the purchaser.

100343.1 - FRONT CHEVRON STRIPING

There shall be alternating chevron striping installed across the front bumper where permitted. The chevron striping shall consist of 6" diamond grade in the following colors:

red
lime yellow

100345.3 - REAR CHEVRON STRIPING

There shall be alternating chevron striping installed on the rear facing portion of the lift gate panel. The chevron striping shall consist of 6" diamond grade in the following colors:

red
lime yellow

There shall be chevron striping on the rear facing portion of the lift gate.

100346.1 - CAPACITIES PLACARD

The apparatus shall have a reflective placard that provides the following information:

Water Tank Capacity
Pump Capacities
NWCG Typing
Skeeter Contact Information

100040.1 - CHASSIS PREPARATION

The chassis cab shall be "prepped" for fire apparatus production as follows:

- a) Wash and clean chassis
- b) Weigh chassis for NFPA reports
- c) Quality control check in.

100041.1 - SEATING

There shall be a label identifying the number of seat belted locations on the unit.

100042.1 - WARNING LABEL -- SEAT BELT USAGE

A warning label for use of seat belts shall be installed in the cab by the chassis manufacturer.

100043.1 - LOUD NOISE WARNING LABEL

A final stage manufacturer shall install "hearing loss" potential warning labels on the vehicle in any areas or fixed equipment that produces excessive noise levels. (exhaust outlet, sirens and air horns shall not be required for such equipment.)

100135.1 - WARNING LABEL -- NO RIDING ON REAR

A warning label stating: "NO RIDING ON REAR OF APPARATUS" shall be installed on rear of the apparatus. The label shall be applied to the vehicle at the rear step area. The label shall warn personnel that riding in or on these areas, while the vehicle is in motion, is prohibited.

100136.1 - SKEETER BRUSH TRUCK EMBLEMS

Three (3) Skeeter Brush Trucks emblems will be affixed to the cab and body.

100196.1 - FINAL ASSEMBLY AND APPARATUS FINISHING PREP SPECIFICATIONS

The apparatus shall be assembled in a high quality and controlled environment. The fit, form, and finish of the body shall be to the highest level fire apparatus manufacturing standards. Upon completion, the apparatus shall be ready for final inspection and road testing as required herein.

100362.1 - ELECTRICAL LOAD ANALYSIS

A 12 volt electrical load analysis shall be performed in order to test response and stationary modes of electrical amp load.

100363.1 - COMPLIANCE

The fire apparatus shall be built to the purchaser's requirements in compliance to all State, Local, and Federal highway safety requirements. The vehicle is not intended to meet any or all standards of the NFPA.

100365.1 - ROAD TEST

A road test will be conducted with the apparatus fully loaded and a continuous run of no less than ten (10) miles. During that time the apparatus will show no loss of power nor will it overheat. The transmission drive shaft or shafts and the axles will run quietly and be free of abnormal vibration or noise.

100366.1 - APPARATUS WARRANTY SKEETER MANUFACTURED ITEMS

A five (5) year parts and labor warranty on items manufactured by Skeeter Brush Trucks and a ten (10) year warranty on the structural integrity of the body. For warranty issues please contact your local dealer or Skeeter Brush Truck service center and request warranty from the service advisor at that location.

100351.1 - PRE-CONSTRUCTION MEETING

A pre-construction meeting shall be conducted at the manufacturer's plant. The transportation to this meeting shall be the

responsibility of purchaser.

100651.1 - DRAWINGS

There shall be design drawings submitted to the customer prior to the pre-construct conference. The drawings shall include all sides of the apparatus. The customer shall agree to the drawings reflecting the correct apparatus design and layout prior to construction.

100353.1 - TERMS OF PAYMENT AND PREPAYMENT PROVISIONS

Terms of payment for the specified vehicle shall be only cash or equivalent on delivery and acceptance for the unit. No bid will be considered which requires the purchaser to deposit with the bidder a down payment, prepayment of chassis, or any other such consideration as a condition of the bid. Such a requirement shall be grounds for immediate rejection of the bid.

100356.1 - DEMONSTRATION AND FAMILIARIZATION OF VEHICLE

The bidder shall demonstrate and familiarize the purchaser regarding the vehicle's operation. This shall include operation of chassis, major components, review of delivery information and documentation. This demonstration shall be completed at Skeeter Brush Trucks factory location in Hillsboro, Texas.

100358.1 - DELIVERY REQUIREMENTS

The apparatus shall be picked up at the manufacturer's plant by the purchaser.