



STATE OF CALIFORNIA

Bid Specification

FRONT-WHEEL-DRIVE CHEVROLET IMPALA LAW ENFORCEMENT SEDAN

1.0 SCOPE:

This specification describes the State of California minimum requirements for a front-wheel drive sedan to be used in emergency response and law enforcement applications. The vehicle will at times be operated at speeds in excess of 100 miles per hour for both short and long durations. It will be driven on all types of roads, and road surfaces and at altitudes ranging from approximately 200 feet below sea level to 10,000 feet above sea level. Ambient temperatures to which the vehicle will be exposed will range from approximately 0°F to 120°F.

The manufacturer shall use components, materials and design practices that are the best available in the industry for the type of operational conditions to which the vehicle will be subjected. Engine, transmission, driveline, differential, brake, suspension, wheel, tire and other component parts of the vehicle shall be selected to give maximum performance, service life, as well as safety and not merely meet the minimum requirements of this specification. Where necessary, the component parts shall exceed the usual quantity, quality, or capacity generally supplied with standard production vehicles in order to withstand unusual strain, exposure, temperature, wear and use required for a police application.

2.0 RULES AND REGULATIONS:

Vehicles shall comply with all applicable California Vehicle Code (CVC), Code of Federal Regulations, Title 49, "Federal Motor Vehicle Safety Standard" (FMVSS) and California Code of Regulations, Title 13, "Motor Vehicles" rules and regulations for authorized emergency vehicles. Vehicles shall also comply with Society of Automotive Engineers (SAE) J 1100, "Motor Vehicle Dimensions" in addition to all other applicable SAE standards. In addition, all vehicles shall comply with all other Federal and State rules, regulations and safety standards applicable to the vehicle type in effect on the date of the opening of the invitation for bid. Vehicles shall meet 50 State emissions requirements that allow the resale of these vehicles to the general public as originally equipped upon emergency vehicle "service life" completion.

3.0 VEHICLE SPECIFICATION:

All vehicles shall be certified by the vehicle manufacturer as "Police Package", "Police Interceptor", "Police Pursuit" or "Suitable for Law Enforcement Service". All vehicles shall meet the following minimum specifications:

4.0 REQUIREMENTS

4.1 General: Each vehicle shall be new (unused), current model year production. Each vehicle shall be supplied with all equipment and accessories indicated as standard equipment in the manufacturer's published literature unless specifically deleted as stated in this specification. Optional equipment necessary to meet the requirements of this specification shall also be installed.

- 4.2 **Engine:** The engine shall be equipped with altitude compensating electronic fuel injection. The engine shall be a V-6 Flexible Fuel Vehicle (E-85) configuration, with displacement to be determined by the manufacturer so that all performance requirements described in Section 1.0 Scope achieved.

The engine shall be designed to operate knock free at all engine and vehicle speeds on unleaded fuel with a minimum octane rating of 87 (RM + MM ÷ 2).

- 4.3 **Engine Oil Cooler:** An auxiliary engine oil cooler shall be installed as necessary to maintain oil operating temperatures within limits required for performance described in section one.

- 4.4 **Cooling System:** The cooling system shall be liquid pressurized, forced circulation type. The cooling system design and capacity shall maintain the engine at optimum temperature, under all operating conditions specified, without any loss of coolant or overheating of engine and components. The cooling system shall be free of contaminants that may affect cooling system component longevity and performance. Optimum engine temperature shall be maintained with the vehicle loaded to the vehicle manufacturer's published maximum gross vehicle weight rating (GVWR) and continually operated in all operating environments described within the scope of this specification.

The coolant recovery system shall be of a closed design to prevent air from entering the radiator. The coolant recovery tank shall be of sufficient capacity to prevent loss of fluid from the coolant recovery tank and/or entry of air into the cooling system under all operating conditions. The coolant recovery tank shall be a vented unbreakable translucent reservoir with visible fill level indicator markings.

- 4.5 **Electrical System:** The electrical system shall be 12-volt negative ground. All wiring shall be heavy duty with weatherproof connectors. The electronic fuel management/ignition system shall be designed as to not be affected by various communication radio systems installed in the vehicle. The electronic fuel management/ignition system shall have "on board" diagnostic capabilities.

The vehicle battery shall be the optional heaviest duty type available, compatible with the vehicle charging system and intended police service. The vehicle battery shall have a minimum of 750 cold cranking amps, with a manufacturing date not exceeding six (6) months prior to vehicle delivery.

The alternator shall be the highest capacity optional alternator listed in the manufacturer's current police package brochure applicable to the vehicle bid.

The accessory drive belts shall be of a heavy duty, serpentine type with a self-adjusting tensioner that will drive all accessories with one belt.

- 4.6 **Transmission:** The transmission shall be fully automatic transmission equipped.

- 4.7 **Steering:** The steering shall be power assisted.

- 4.8 **Brakes:** The brakes shall be power assisted and feature a four-wheel anti-lock brake system (ABS). All four wheels shall be equipped with disc brakes. Friction material shall be designed for police applications.

- 4.9 **Wheels and Tires:** Each vehicle shall be supplied with five (5) matching wheels and tires. One (1) of the five (5) shall be a matching full size wheel and spare tire. A space saver type spare tire is not acceptable. The wheels shall have a safety ridge rolled into rim or otherwise designed to prevent the

tire from separating from the wheel in the event of a flat. Wheels shall be heavy duty steel or aluminum alloy designed for police applications. Lug nuts shall be covered with full wheel covers.

The tires installed on the vehicle (including spare) shall meet the requirements listed in the Code of Federal Regulations (CFR), Title 49, Chapter V, Part 575.104. All tires shall be speed rated at 130 MPH minimum (H-rating).

- 4.10 Wheelbase:** The minimum wheelbase shall be 110”.
- 4.11 Suspension:** The front and rear suspension including shock absorbers shall be designed for police work. Front and rear stabilizer bars are required. The State will mount a push bumper weighing approximately 52 pounds on the front of the car and approximately 200 lbs. of equipment will be carried in the trunk at all times.
- 4.12 Front-Wheel Drive:** The vehicle shall be front-wheel drive with a gear ratio designed to give the best overall performance for the transmission and tire size installed on vehicle. The gear ratio shall be the same on all vehicles.
- 4.13 Fuel Tank:** The fuel tank furnished shall be the largest capacity available.
- 4.14 Radio Suppression:** All electrical equipment shall be shielded to minimize radio interference.
- 4.15 Body:** The vehicle shall be classified by the Federal EPA as a large sedan. The body shall be a four-door sedan with center post. A vinyl type protective body side molding shall be installed except on the front doors if trim interferes with the installation of agency insignia. The wheel wells shall be so constructed that SAE Class “S” style tire chains may be installed in a conventional manner, without clearance problems and without causing body or structural damage to the vehicle (SAE specification J1232).
- The front door body side molding(s) shall be supplied with mounting hardware for installation by the purchasing agency when the vehicle is taken out of service.
- 4.16 Exterior Color:** Manufacturer’s published listing of factory available paint colors and paint schemes shall be made available to the ordering agency at the time of the purchase order. The agency will identify the paint color and scheme on the purchase order.
- 4.17 Interior/Seat Upholstery:** Front seats shall be bucket type accommodating a center console. A 60/40 split bench / bucket type seat is not acceptable. The driver’s seat shall be power adjustable and shall be designed for maximum comfort, support and durability. Manufacturer’s standard cloth bucket seats and vinyl rear seat shall be provided.
- 4.18 Steering Wheel:** A tilt steering wheel is required.
- 4.19 Speedometer:** The vehicle described in this specification will be used in law enforcement and speedometer accuracy is essential. The speedometer shall be calibrated and be accurate within 2 miles per hour at speeds from 15 to 100 miles per hour of the true vehicle speed, within the environmental operating conditions specified in Section 1.0 Scope. The dial face shall be marked up to a minimum of 120 miles per hour. The design of the speedometer shall be such to insure accuracy throughout the life of the vehicle. The face markings shall not be in increments greater than five (5) miles per hour with one (1) mile per hour increments on message center (Digital). The face shall contain the wording

“Certified Speedometer”, or other wording to indicate that speedometer accuracy is certified, or a letter of certification of accuracy shall be provided with each unit. The bidder shall specify the size, brand and model of tires for which the speedometer is certified.

- 4.20 Radio:** Am / FM radio shall be installed.
- 4.21 Spotlights:** The vehicle shall be supplied with a factory installed spotlight accommodation package for each side of the vehicle including predrilled “A” pillar posts and any required door/door weather-strip modifications.
- 4.22 Floor Covering:** The floor covering of the front and rear floor shall be carpet. The color shall be keyed with the upholstery color. OEM carpeted floor mats shall be included.
- 4.23 Hood Latch Release:** The hood latch release shall be mounted inside the front passenger compartment so that the hood can not be opened from outside the vehicle. The release shall be readily accessible to the driver.
- 4.24 Rear Deck Lid Release:** The rear deck lid release shall be mounted in a location readily accessible to the driver. Dealer modification of the location to meet the requirement for a rear deck lid release in a location readily accessible to the driver is acceptable however no holes may be left as a result of the modification.
- 4.25 Trunk Compartment:** The trunk compartment shall have a minimum usable luggage capacity of 10.0 cubic feet.
- 4.26 Radio Speaker:** Vehicle shall be factory equipped with two (2) front mounted radio speakers.
- 4.27 Miscellaneous Equipment:** The vehicle shall be equipped with the following miscellaneous equipment:
- Fresh air type heater and defroster. Refrigeration air conditioning of a size and type recommended and installed by the manufacturer of the vehicle. Vehicle air conditioning system shall include any components required to protect the compressor from excessively high head pressure.
 - Intermittent windshield wiper system.
 - Fuel level and water temperature indicator gauges.
 - 12-volt DC power outlet in front compartment.
 - Dual electric horns or dual note horn.
 - Halogen headlamps, high and low beam.
 - Standard map or courtesy light.
 - If vehicle offered includes a locking door which cannot be unlocked by the door handle, one additional key fob shall be provided.
 - If the vehicle offered includes an automatic lock feature that automatically locks the doors when the transmission is shifted into drive mode, the bidder shall include any service calibration required to override this function.
 - Driver and passenger front air bags.
 - All four (4) doors shall contain power locking and unlocking mechanisms controlled by switches located on both the left and right front door control panels.
 - All four windows shall be power actuated and controlled from the driver’s side door control panel with a lockout feature to prevent other windows from being operated when locked out by the driver.

- Rear window defogger/defroster on a separate switch.
- The vehicle shall use the same single key for ignition and driver door. Keyless entry fobs shall open doors and trunk. A set of four (4) keys and four (4) key fobs shall be supplied for each vehicle. Each vehicle shall be keyed individually.
- Arm rests on each of the 4 doors (arm rests in rear passenger compartment may be mounted on other than the door if vehicle is so designed).
- Left and right remote control outside mirrors. Similar in appearance and mounted on left and right front doors. Both mirrors shall be controllable from the driver's seat.
- Windshield and all windows shall feature tinted glass.
- Light in trunk with trunk lid actuated switch.
- Light in engine compartment with hood actuated switch.
- Tire pressure monitor system.
- Standard tool kit including wheel changing tools and jack adequate to safely lift the vehicle.