

# BID SPECIFICATIONS

## NJ Type B School Vehicle 28 Passenger Gas Engine FORD

### 1.0 QUALIFICATIONS

- 1.1 The manufacturer of the body must be ISO 9001:2000 certified. Written certification of compliance shall be included with the bid submission documents.
- 1.2 The body manufacturer shall have been in business of manufacturing school vehicles for a minimum of 10 years and maintain product liability insurance of not less than \$10 million.
- 1.3 The bidder shall have operated as a New Vehicle Dealer, having distributed school vehicles and maintained a repair facility and parts distribution center located in New Jersey for a minimum of 5 years prior to the date of bid. A copy of NJ Dealers License shall be included with the bid.
- 1.4 These specifications are for vehicles meeting all applicable New Jersey and Federal requirements and a "Vendor Certification Statement" certifying same shall be provided at time of delivery.

*Exceptions:*

### 2.0 BODY

#### 2.1 SEATING

- 2.1.1 Floorplan: Shall consist of, on the driver's side, five rows of 45" seats and 1 22" seat; on the curb side, six rows of 30" seats.
- 2.1.2 Covering: Shall be heavy-duty gray vinyl meeting the criteria contained in the NSFBS Fire Block Test for school bus seat upholstery.
- 2.1.3 Seat Backs: Shall be 28" in height.
- 2.1.4 Seat Belts: A color-coded seat restraint shall be provided for each seating position.
- 2.1.5 Restraining Barriers: Which meet FMVSS 222 shall be provided behind the entry door and driver's seat, the same width and height as the seat backs behind them.

*Exceptions:*

2.2 DIMENSIONS

2.2.1	<u>Vehicle Length</u> (minimum inches):	279
2.2.2	<u>Exterior Width</u> (maximum inches):	95
2.2.3	<u>Interior Height</u> at Aisle (minimum inches):	76
2.2.4	<u>Interior Width</u> at Seat Level (minimum inches):	91

*Exceptions:*

2.3 CONSTRUCTION

- 2.3.1 Body Structure: Shall be certified by the manufacturer to comply with FMVSS 220 for rollover protection and FMVSS 221 for joint strength integrity.
- 2.3.2 Exterior Panels: Shall be zinc coated galvanized steel for strength, corrosion resistance and ease of repair. *Aluminum panels are not acceptable.*
- 2.3.3 Interior Sidewalls: Panels below the windows must have a galvanized finish to prevent scratches.
- 2.3.4 Roll Cage: Shall be of steel that is galvanized and welded with continuous welds at each attachment point.
- 2.3.1 Roof: Shall be designed with one exterior seam, to minimize the possibility of leakage during the life of the vehicle. *Roofs with multiple seams or of FRP are not acceptable.*
- 2.3.2 Rub Rails: Three guardrails of 16-gauge G-60 galvanized steel shall be located at seat, floor and skirt levels. All but skirt rub rail shall wrap around the rear of the bus. All rub rails shall be one piece with formed ends. *Rub rails comprised of spliced sections or of aluminum are not acceptable.*
- 2.3.3 Rear Bumper: Shall be of pressed steel channel minimum 3/16" thick, 10" in height with 2" deep flanges. Molded ABS shrouds shall be provided to protect the leading edge of the bumper from catching on passing objects

*Exceptions:*

2.4 FLOOR

- 2.4.1 Flat-floor: Wheel wells shall not protrude into the passenger compartment.
- 2.4.2 Sub-flooring: Shall consist of a full length galvanized steel panel, laminated to 5/8" marine grade plywood.

- 2.4.3 Covering: The under-seat area shall be covered with smooth rubber, min. 1/8" thickness; aisle and platform to be covered with ribbed rubber minimum 3/16" thickness, angled at entry for easy sweep out.
- 2.4.4 Access Plate: Shall be provided in the floor to access the fuel tank-sending switch.

*Exceptions:*

## 2.5 INSULATION & RUST-PROOFING

- 2.5.1 Insulation: 1 1/2" fiberglass insulation shall be installed in the side walls, rear wall and end caps.
- 2.5.2 Undercoating: The underside of the body shall be completely coated with an asphalt or rubber base material in compliance with NJDMV requirements.

*Exceptions:*

## 2.6 PAINT

- 2.6.1 Exterior: The vehicle shall be finished in an acrylic urethane enamel of National School Bus chromium yellow.
- 2.6.2 Warranty: The paint shall have a limited lifetime warranty. *A copy shall be provided with the bid.*
- 2.6.3 Roof: Shall be painted white to reduce heat build up.
- 2.6.4 Grille: Shall comply with NJMVC requirements.
- 2.6.5 School Bus Signs: Shall be of reflective material, front and rear.
- 2.6.6 Rub Rails: All rub rails shall be painted black.
- 2.6.7 Lettering: Vehicle shall be lettered per Board's specifications.

*Exceptions:*

## 2.7 DOORS

- 2.7.1 Entrance Door: Shall be 2 leaf outward opening, providing a clear opening of at least 24" x 80". Full length AS2 glass panels shall be provided in each leaf.

- 2.7.2 Door Control: Must include a swing away mounting that allows easy access to the engine cover with the removal of a single retaining bolt.
- 2.7.3 Grab Handles: Of stainless steel shall be provided on both sides of the doorway.
- 2.7.4 Emergency Door: Shall have a clear opening of at least 36" x 50" with a stainless steel continuous hinge and include upper and lower glass providing a minimum viewing area of at least 1,100 sq. in., a buzzer to indicate when door is unlatched and a positive device to hold the door open.
- 2.7.5 Vandal Lock: A device shall be provided to enable locking of rear door with a starter interrupt.
- 2.7.6 Driver's Door: A steel rub rail shall be installed on the driver's door at seat level.

*Exceptions:*

## 2.8 WINDOWS

- 2.8.1 Split Sash: Five windows with black anodized aluminum frames, 28" x 28" nominal, shall be provided on each side, providing minimum 9" vertical openings.
- 2.8.2 Tinted Glass: With 27% light transmission shall be provided in split sash to reduce heat build up.
- 2.8.3 Rear Glass: All glass in the back of the bus shall be clear. *Tinted is not acceptable.*
- 2.8.4 Emergency Egress: One push-out exit window shall be provided on each side, not directly opposite each other. They shall be vertically hinged on the forward side of the vehicle, and include a buzzer in driver's compartment to warn if un-latched.

*Exceptions:*

## 2.9 MIRRORS

- 2.9.1 Rear View: Power remote mirrors with heating elements including a 7" x 9 ½" flat and 7" x 4" convex lens shall be mounted on each side of the bus.
- 2.9.2 Cross-Over: Heated Rosco EyeMax LP cross over mirrors shall be provided for improved visibility.
- 2.9.3 Interior: A 6" x 16" safety glass rear view mirror shall be provided.

*Exceptions:*

## 2.10 ELECTRICAL

- 2.10.1 Electrical Panel: The body electrical panel shall be located in a compartment in the front header above the windshield for easy access.
- 2.10.2 Wiring: All wiring shall be color-coded and function-labeled. Pre-wired harness shall be routed above the windows inside an easily removable molding. Circuits must be protected by circuit breakers.
- 2.10.3 Wiring Diagrams: Shall be provided with the vehicle, which references the color-coding.
- 2.10.4 Control Panel: A panel containing back-lit rocker type switches must be mounted near the passenger door control for easy access by driver.
- 2.10.5 Warning Lights: A halogen eight lamp sealed beam school bus warning system mounted on black headers with visors, shall be provided with a solid-state flashing unit activated by a foot switch.
- 2.10.6 Monitor System: A 16 lamp system shall be provided to indicate positive operation of school bus lamps, brake lights, rear turn signals and back-up lights.
- 2.10.7 Exterior Lighting - - shall include:
  - 2.10.7.1 ICC Clearance Lights – LED, recessed in the caps;
  - 2.10.7.2 Stop/Tail Lights - two red 7” and two flush mounted 4” LED lamps on rear of vehicle;
  - 2.10.7.3 Rear Turn Signals - two 7” lamps;
  - 2.10.7.4 Side Directional Signals – LED with armor shields on each side of body behind doors;
  - 2.10.7.5 Back-up Lights - two recessed 4” LED lamps shall be wired to activate with opening of the rear emergency door
- 2.10.8 Interior Lighting – shall include:
  - 2.10.8.1 Stepwell Lighting - two stepwell lamps, activated by opening entrance door.
  - 2.10.8.2 Dome Lights – 2 lamps shall be installed on each side of the passenger compartment, and an additional dome light provided over the driver door.
- 2.10.9 Radio: An AM/FM /CD stereo including clock, antenna and 4 speakers shall be provided.

*Exceptions:*

2.11 HEATERS / VENTS

- 2.11.1 Heater / Defroster: Hot water type as supplied by chassis manufacturer to be deluxe, high-output, with defroster.
- 2.11.2 Rear Heater: A 50,000 BTU min. floor mounted heater shall be provided including two shut-off valves and line bleeder. There shall also be a water flow regulating valve installed in the pressure line for convenient operation by the driver while seated to control temperature output..
- 2.11.3 Air Conditioning: A 45,000 BTU minimum system consisting of both a front and rear evaporator and skirt mounted condenser shall be provided. The rear evaporator must be flush mounted in the rear wall of the vehicle. NO EXCEPTIONS.

*Exceptions:*

2.12 SAFETY EQUIPMENT

- 2.12.1 Stop Arm with reflective blade
- 2.12.2 Crossing Control Arm with yellow polycarbonate arm and magnetic holder.
- 2.12.3 Safety Hatch: Two (2) Transpec Low Profile ventilator/emergency exits with exterior handles and ajar buzzers shall be installed in the bus roof.
- 2.12.4 Back-up Alarm
- 2.12.5 Child Reminder System: Which shall activate a buzzer after engine shutdown, requiring driver to hit cancel switch at rear of bus. If not done after one minute the horn will pulse.
- 2.12.6 First Aid Kit - NJ approved
- 2.12.7 Fire Extinguisher - 2A10BC with hose and gauge
- 2.12.8 Triangle Reflector Kit
- 2.12.9 Body Fluid Kit
- 2.12.10 Pry Bar - 30" long, secured accessible to driver
- 2.12.11 Gas Cap Retention Tether
- 2.12.12 Seat Belt Cutter
- 2.12.13 Storage – A compartment with finished interior shall be provided above the driver's door.

*Exceptions:*

**3.0 CHASSIS**

- 3.1 ENGINE: Gas – 5.4L with one HD 600 CCA Battery, minimum.
- 3.2 WHEELBASE: 158 inches, minimum
- 3.3 G.V.W.R.: 14,050 pound, minimum
- 3.4 ALTERNATOR: 145 amp, minimum
- 3.5 FUEL TANK: 40 gallons, minimum
- 3.6 TRANSMISSION: Heavy Duty 5 Speed Automatic with OD and Cooler
- 3.7 BRAKES: Power - Four Wheel Disc with Anti-lock
- 3.8 TIRES: All Season Radials
- 3.9 MISCELLANEOUS
  - 3.9.1 Power Steering
  - 3.9.2 Tilt Steering Column
  - 3.9.3 Intermittent Windshield Wipers
  - 3.9.4 Heavy Duty Cooling

- 3.9.5 Drive Shaft Guards at each section
- 3.9.6 Exhaust System must exit under the rear bumper of vehicle
- 3.9.7 Fuel Tank Heat Shield
- 3.9.8 Mud Flaps, front and rear
- 3.9.9 Rear Tow Hooks

*Exceptions:*

