

# BID SPECIFICATIONS

## Town of \_\_\_\_\_

### 25 Adult Passenger Mini Bus

***Bidder shall indicate, to the right of each section, "Yes" or "No" as to whether or not the vehicle offered fully complies with the specifications. All exceptions and deviations must be fully explained on the bidder's letterhead and shall reference each paragraph number where a variation exists. Comments such as "Differences may occur" or "We are equal to your specifications" without substantiation will result in the bid offer being deemed unresponsive.***

<b>SPECIFICATIONS</b>		Fully Complies	
		YES	NO
<b>1.0 SCOPE:</b>			
1.1	These specifications are for (a) current model year vehicle(s) meeting all applicable Federal, State and ADA "Demand Response" requirements.		
1.2	Vehicle type shall have been Altoona Tested for a minimum 7 year / 200,000 mile duty cycle.		
1.3	The manufacturer of the body must be certified to be in compliance with Quality Standards ISO 9001:2000 with regard to the Sale, Design and Manufacture of Customized Buses and Multipurpose Passenger Vehicles.		
1.4	The body manufacturer shall have been in business of manufacturing small and mid-size commercial buses for a minimum of 10 years prior to the date of bid.		
1.5	The bidder shall have operated as a licensed vehicle dealer, having distributed commercial buses and maintained a repair facility and parts distribution center for a minimum of 5 years prior to the date of bid.		
1.6	The bidder shall maintain both Products/Completed Operations Liability insurance coverage and Garage Liability insurance coverage, each with a minimum \$5 million aggregate limit.		
<b>2.0 BODY:</b>			
2.1	<b>CAPACITY &amp; FLOORPLAN</b>		
2.1.1	25 ambulatory passengers.		
2.1.2	There shall be five rows of 2-passenger seats on each side of a center aisle. The last row shall accommodate 5 adults, including a quick disconnect for removal of the center seat.		
2.1.3	The hip-to-knee room between seat rows shall be 26" minimum.		
2.1.4	The center aisle shall be 14" minimum.		

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YES	NO
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## 2.2 DIMENSIONS

- |       |                  |          |                             |
|-------|------------------|----------|-----------------------------|
| 2.2.1 | <u>Exterior:</u> | Length - | 295" minimum                |
|       |                  | Width -  | 96" minimum                 |
| 2.2.2 | <u>Interior:</u> | Height - | 79" minimum at center aisle |
|       |                  | Width -  | 91" minimum at seat level   |

## 2.3 BODY CONSTRUCTION:

- 2.3.1 Body Assembly: The front, rear, sides and roof shall be interlocked to form a unibody design without any exposed fasteners or protruding moldings for easier washing and cleaning. It shall have been tested to meet or exceed FMVSS 220 for bus rollover protection and FMVSS 221 for body joint strength.
- 2.3.2 Crash Testing: The body design shall have successfully undergone side and rear impact testing. *Documentation of compliance with this requirement shall be provided with the bid.*
- 2.3.3 Floor Frame: Shall be fabricated with 1010/1020 low carbon hot rolled steel and have undergone finite element analysis demonstrating the ability to withstand 40,000 pounds with less than 1/16 inch of deflection at the perimeter.
- 2.3.4 Body Frame: Shall consist of perimeter 1"x1½"x2" steel Z-channels welded with 11 gauge cross-bridge bracing to 12 gauge seat rails to fully encase the passengers. The sidewall structure shall include two 1½" wide longitudinal steel members and 1"x2" zinc-plated angle sections above and below the windows, running the full length of the body.
- 2.3.5 Window Pillars: Shall be 1½"x1" zinc-plated tube.
- 2.3.6 Body Panels: Shall be of a structural composite material composed of non-corrosive fiberglass reinforced plastic so as to provide twice the strength to weight ratio of an all-steel frame structure.
- 2.3.7 Floor Decking: Shall consist of minimum ¾" thick plywood.
- 2.3.8 Insulation: Sides, roof and front and rear crowns shall be insulated by dead air cells sealed within the body assembly composite to provide a minimum R-6 thermo-barrier.
- 2.3.9 Steps and Stepwell: Shall be fabricated of 304 grade stainless steel and then powder coated to preclude corrosion.
- 2.3.10 Undercoating: The understructure and edges shall be completely undercoated by hand brushing before it is installed on the floor frame structure to provide 100% seal and protection from moisture penetration.
- 2.3.11 Water Testing: The bus shall be water-leak tested from all sides, above and below for a minimum of 10 minutes in a water spray booth that will accommodate the entire vehicle. Any leaks detected during the test shall be repaired and extreme leaks shall require a second water-leak test to assure repairs were effective.

## 2.4 EXTERIOR FINISH

- 2.4.1 Exterior Surfaces: Shall be a minimum .020" thickness of high-gloss white gelcoat to prevent moisture penetration and corrosion.
- 2.4.2 Body Side Molding: A non-metallic molding strip shall be installed along the top of the skirt to protect the vehicle from damage.

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- 2.4.3 Paint: Window pillars shall be black, commonly referred to as “window black-out”. There shall be an 8” transit stripe along each side of the body. The color is to be specified by the purchaser at the time of bid award.
- 2.4.4 Wheels: The exterior of all wheels shall be powder coated white.
- 2.4.5 Fuel Fill: Shall be molded fiberglass or equivalent. No exposed fasteners are permitted.
- 2.4.6 Skirts: Shall consist of curved reinforced fiberglass, easily removable for replacement.
- 2.4.7 Fenders: Replaceable contoured rear wheel fenders shall be provided.
- 2.4.8 Mud Flaps: Of 3/16” rubber composite shall be installed behind the front and rear tires.
- 2.4.9 Lettering: The name of the organization, funding acknowledgements and vehicle number shall be applied with decals on both sides of the body.
- 2.4.10 Destination Sign: A sign box shall be installed in the front cap consisting of a large clear panel, access door, finished interior, and light designed to back light a placard sign.

## 2.5 BUMPERS

- 2.5.1 Front Bumper: Shall be provided by the chassis manufacturer.
- 2.5.2 Rear Bumper: Shall be of 5” x 2” tubular steel. Pressed steel bumpers are not acceptable.
- 2.5.3 Anti-Ride: A fiberglass reinforced plastic anti-ride fixture shall be integrated into the back wall of the bus located above the full width of the rear bumper to prevent standing on top of the bumper.

## 2.6 DOORS

- 2.6.1 Door Frames: All door frames shall be fabricated with 304 grade stainless steel, powder coated to preclude corrosion.
- 2.6.2 Passenger Door: Shall be a manually operated in-cab transit style door with two outward opening tempered glass panels, affording a clear opening of at least 26” x 80”.
- 2.6.3 Entry Handrails: Two assist rails shall be provided, one on each side of the passenger doorway. The rails shall be parallel to the steps to provide continuous support.
- 2.6.4 Stanchions & Modesty Panel: A vertical stanchion and modesty panel shall be provided behind the step well and a stanchion, cross bar and shield behind the driver’s seat. The driver shield shall be minimum 18” wide extending from at least 2” below the driver’s seat back to within 18 “ of the ceiling, of tinted 3/16” thick plexiglass.
- 2.6.5 Rear Door: A heavy-duty rear door, 32” x 54” shall be installed in the center of the rear of the bus. The interior and exterior surfaces shall be of molded gel coated FRP encasing high-density foam core. The door shall include a large 24” wide by 30” high tempered safety glass window, gas shock door opener and nylon restraint straps. The latch mechanism shall secure the door at both the top and the bottom. An audible signal shall be provided to alert if the door is ajar.

## 2.7 WINDOWS

- 2.7.1 Passenger Side Windows: Shall be tinted, at least 40” high with ventilating T-sliders at the top. A drip rail shall be installed above all side windows.

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2.7.2 Egress Windows: Two emergency egress windows shall be provided on each side of the vehicle.

## 2.8 ELECTRICAL

2.8.1 Wiring: Shall be color, numbered and function coded. Circuits shall be protected by auto-reset circuit breakers and a circuit legend shall be laminated inside the electrical panel.

2.8.2 Driver's Controls: Shall consist of a console, mounted at an angle on the engine dog house for easy viewing and reach by the driver, containing permanently labeled and back lighted switches. Switches or gauges above the windshield are not acceptable.

2.8.3 Audio System: An AM / FM / CD stereo radio shall be provided with six speakers located throughout the interior.

## 2.9 EXTERIOR LIGHTING

2.9.1 Head Lamps & Front Turn Signals: Shall be supplied with the chassis.

2.9.2 Rear and Clearance Lights: Shall be LED type and meet all State and Federal requirements. Front clearance lights must be recessed into cap.

2.9.3 Brake Light: There shall be a set of LED brake lights that are separate and independent of any other function, flush mounted. In addition, an LED high mount collision avoidance light shall be provided.

2.9.4 Side Turn Signals: Shall be mounted on each side of the body between the front doors and rear axle, LED type and protected by a chromed metal shield.

2.9.5 Entry Light: A shielded light shall be provided behind the passenger door as required by ADA, that automatically activates with opening of passenger door.

## 2.10 INTERIOR LIGHTING

2.10.1 Dome Lights: A minimum of six overhead lights shall be installed in the passenger compartment, controlled by a master switch in the driver console and automatically with opening of passenger entry door.

2.10.2 Step Well Light: A light shall be provided in the step well which automatically activates with opening of entry door.

2.10.3 Driver Dome Light: A separate directional light shall be provided in the driver compartment, activated by opening of driver door and separate switch.

## 2.11 INTERIOR FINISH

2.11.1 Headliner: The passenger area headliner shall be covered in automotive grade fabric, to suppress interior noise.

2.11.2 Walls: Textured FRP side wall panels shall be installed from the seat rail to the ceiling.

2.11.3 Floor: Shall be covered in gray transit rubber, 1/8" smooth under seats and 3/16" ribbed rubber in the aisle and entry way. The ribbed aisle must meet step rubber on an angle for easy sweep out. A white standee line and integral white step nosing shall be provided.

2.11.4 Overhead Handrail: A stainless steel overhead handrail shall run the length of the passenger compartment as required by ADA on the driver's side of the bus.

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## 2.12 SEATS

- 2.12.1 Passenger Seats: Shall be high-back bucket seats. The seats shall be covered in a Level 4 fabric. The back of the seats shall be covered in a durable complementary gray carpet material. All seats except those against the rear wall shall have reclining mechanisms.
- 2.12.2 Arm Rests: Each aisle seat shall have a folding arm rest with black molded rubber covering.
- 2.12.3 Driver's Seat: Shall be high back, with lumbar support and right side arm rest. Covering shall be the same as the passenger seats.

## 2.13 HEATING & AIR CONDITIONING

- 2.13.1 Front Heat: Shall be the maximum size offered by the chassis manufacturer.
- 2.13.2 Rear Heat: A 2-speed heater shall be installed with a minimum capacity of 65,000 BTU.
- 2.13.3 Front Air Conditioning: Shall be factory installed by the chassis manufacturer consisting of compressor and in-dash evaporator.
- 2.13.4 Rear Air Conditioning: A minimum 68,000 system shall be provided consisting of at least a 53,000 BTU evaporator mounted at the rear wall, a 3 fan skirt mounted condenser and dual compressors.

## 2.14 MIRRORS

- 2.14.1 Interior: A 4"x8" convex mirror shall be provided above the driver for viewing passenger seating area.
- 2.14.2 Exterior Mirrors: Shall consist of integrated dual lens design composite heads containing separately adjustable flat and convex mirrors. The driver's side mirror head shall be wing mount and the curb side fender mounted with a "Z" type reinforcement to the chassis structure under the hold.

## 2.15 SAFETY EQUIPMENT

- 2.15.1 Reflector Kit: A set of three warning triangles shall be provided in a weather resistant storage container.
- 2.15.2 Fire Extinguisher: A fire extinguisher with gauge, rated at 10BC shall be secured in the driver compartment.
- 2.15.3 First Aid Kit: A first aid kit, minimum 15 unit, shall be installed on the vehicle.
- 2.15.4 Belt Cutter: A belt cutter shall be mounted in the driver's compartment.
- 2.15.5 Back-up Alarm: The bus shall have an audible alarm which operates when the gear shift is placed in reverse.
- 2.15.6 Roof Hatch: A ventilation/escape hatch shall be provided in the roof of the vehicle, Transpec Dual Purpose Low Profile. The interior material of the hatch shall be gray in color.

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## 3.0 CHASSIS

3.1 WHEELBASE: 176 inches, minimum

3.2 G.V.W.R.: 14,050 pounds min.

3.3 ENGINE: Diesel - 6.0 Liter with turbo.

3.4 TRANSMISSION: Automatic 4-speed with overdrive.

### 3.5 ELECTRICAL

3.5.1 Alternators: The vehicle shall be provided with dual OEM alternators.

3.5.2 Batteries: Two 12 volt batteries with total 1,300 CCA, minimum.

3.5.3 Fast Idle: A device connected to the engine ECM shall be provided to automatically increase the engine idle speed when required to satisfy the electrical draw.

3.6 BRAKES: Power-assisted, heavy-duty, front and rear.

### 3.7 AXLES

3.6.1 Front: 4,600 pounds, min.

3.6.2 Rear: 9,450 pounds, min.

3.7 FUEL TANK: 55 gallon min.

### 3.8 STEERING

3.8.1 Power Steering: Full Time

3.8.2 Steering Wheel: Tilt

### 3.9 MISCELLANEOUS

3.9.1 Windshield Wipers: Intermittent

3.9.2 Cruise Control

## 4.0 DOCUMENTATION

4.1 Vehicle Training Videos: A comprehensive video describing the features and explaining the operation of the vehicle shall be provided with each vehicle.

4.2 Operators Manuals: Operators manuals for both the body and chassis shall be provided with each vehicle.

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- 4.3 Parts Manual: A parts manual for the body shall be provided with each vehicle.
- 4.4 Electrical Schematics: Complete wiring diagrams shall be provided with each vehicle.

## 5.0 WARRANTY

### 5.1 BODY

- 5.1.1 Basic: 1 year / 12,000 miles
- 5.1.2 Structural: 5 years / 100,000 miles
- 5.1.3 Corrosion: 10 years on metal parts when used instead of specified non-corrosive composite materials and stainless steel.

### 5.2 CHASSIS

- 5.2.1 Basic: 3 year / 36,000 miles – bumper to bumper
- 5.2.2 Engine: 5 years / 100,000 miles

### 5.3 COMPONENTS

- 5.3.1 Rear Air Conditioning: 2 years / unlimited mileage

## 6.0 SUBMISSIONS REQUIRED

- 6.1 **EXCEPTIONS / DEVIATIONS**: An attachment containing a full and precise explanation of all exceptions and variations from the specifications in the vehicle proposed by the bidder.
- 6.2 **FLOORPLAN**: Including the following dimensions
  - 6.2.1 Overall length
  - 6.2.2 Wheelbase
  - 6.2.3 Seat spacing on both sides of the bus
  - 6.2.4 Knee spacing on both sides of the bus
  - 6.2.5 Aisle width
- 6.3 **ALTOONA TEST**: Copy of the Executive Summary from the Federal STURRA report.
- 6.4 **PROOF OF BODY CRASH TESTING**
- 6.5 **ISO COMPLIANCE**: Copy of manufacturer's ISO 9001:2000 certification.
- 6.6 **INSURANCE**: Evidence of the required coverage.
- 6.7 **LICENSE**: Copy of the bidder's Dealer License.
- 6.8 **FMVSS**: Complete listing of body manufacturer's FMVSS compliance.
- 6.9 **WARRANTY**: Body, chassis and component warranty coverage information per section 5.0.
- 6.10 **BROCHURES**: Body manufacturer's brochure for the specific model proposed.