

**MOSCOW SCHOOL DISTRICT 281
650 N. Cleveland
Moscow, ID 83843-3659**

We hereby certify that the specifications of the school bus chassis and body as to construction will comply with the minimum standards and regulations of the State of Idaho Board of Education, Idaho State Commissioner of Highways, and current revised National Bus Minimum Standards, in addition to the special requirements requested by the Board of Trustees as stated below. It is understood the vendor shall furnish and install equipment, materials, and any other miscellaneous items required to produce complete buses. "Equivalent items" must be accompanied with descriptive literature and costs.

SCHOOL BUS CHASSIS & BODY SPECIFICATIONS

Two (2), 2019 model year, 71 Passenger, Type C School Buses

ITEM	MINIMUM SPECIFICATIONS REQUIRED BY THE BOARD OF TRUSTEES	SPECIFICATIONS PROVIDED (BIDDER TO COMPLETE) (YES or No or equivalent)
1.	Bus Make	IC, Bluebird or Thomas
a.	Body Length	40 foot max.
b.	Pupil passenger capacity	77 passenger seated 71 passengers
2.	Engine	Diesel Engine – List engine specs. Inline 6 cylinder. Racor brand fuel filter, with heating element and water/fuel separator. Min. 260 H.P. 660 ft. lbs. torque. Selling dealer to specify nearest dealer to perform warranty work.
a.	Alternator	12 volt, 200 amp Bosch Alternator, factory installed illuminated amp gauge.
b.	Block Heater	110v, 1250w engine block heater.
c.	Batteries	3 Commercial group 31 batteries, minimum 925 cold cranking amps each. Roll out battery tray. Battery run down protection monitor system -12volt, 5 amp Deltron battery tender.
d.	Electrical	Color coded wiring diagram furnished with vehicle. All electrical accessories shall be connected to an ignition controlled cutoff solenoid. Circuit breakers in lieu of fuses. Factory installed external temperature display to be included. Cruise control and fast idle control to be provided. 6 post energized bus bar located in electrical panel.
3.	Axle	
a.	Front	10,000 lb min. Hub caps with sight windows.
b.	Rear	19,000 lb min. with air suspension, ratio 4.4 – 4.8; 2 ¼ inches inboard chain clearance between inside dual and springs. Traction control to be provided.
4.	Transmission	Allison PTS 3000 five speed with touch panel shifter with temperature gauge and electronic fluid level indicator. Programmed to performance mode.

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5.	Steering	Power steering with tilt/telescoping column.
6.	Wheelbase	270 inches min. to 280 inches max.
7.	Brakes	Min. of 600 sq. inches of lining; air brakes; S cam actuators; with backing plates; outboard mounted drum type front & rear; automatic slack adjusters front & rear; 13.2 cfm Bendix-Westinghouse compressor; Bendix-Westinghouse AD-9 heated air dryer or equivalent; illuminated air gauge.
8.	Tires and Wheels	
	a.	Front
		11R22.5, 16 ply Michelin XZE2 radial tires.
	b.	Rear
		11R22.5 14 ply Continental HDR2 radial tires.
	c.	Spare Wheel
		8.25 rim size; radial disc wheel, 10 hole hub piloted, all wheels to be painted black and to be interchangeable.
9.	Tow Hooks	Two front and two rear installed on the frame by factory
10.	Mud Flaps	Individual front mud flaps; individual rear mud flaps; rubber fender flares on rear wheel openings.
11.	Dust Shield	SEE II brand Dust Shield to be mounted across the top rear of bus.
12.	Fuel Tank	100 gallon min. capacity mounted between the frame and rails and behind the rear axle. Provide access panel to service fuel gauge sending unit.
	a.	Fuel Tank Opening
		Spring loaded, hinged door with latch.
		DEF tank to have locking latch.
13.	Lights	All lights to be LED. 8-Way Lights must have hoods over them or meet current State standards. Master switch and activation switch to be mounted in control panel. Headlights to have wig-wag programmed to be activated when 8-ways are in operation. LED directional lights on body and hood sides; LED clearance lights with shields at all locations; LED brake lights, turn, tail, step-well, entry door and 4" backup lights. Reflectors – There shall be installed on the bus body (4) amber and (4) red reflectors that meet FMVSS 108 requirements. The lenses are to be 3 inches in diameter and made from acrylic plastic with six reflecting angles. LED dome lights in passenger area, with rheostat. Cab light for driver. Additional Hazard switch to be mounted in control panel. Metal overhead storage

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		compartment above driver's window with locking door and gas door prop and interior light. 12-volt accessory power plug installed in Drivers side lower compartment.
14.	Floor	Minimum 5/8" marine plywood over steel.
	a. Under Seat Area	R.C.A. Brown floors and wheel housing.
15.	Front Entry Step	Rubber wear plate and two (2) handrails at entrance. Modesty panel aft of entrance door.
16.	Entry Door	Double glazed glass; Painted Yellow; heavy duty air operated entrance door control with outside handle.
17.	Defrosting System	Two auxiliary defrost fans, one on each side of windshield. Right hand heater and defroster at stairwell and driver window defroster.
18.	Heaters	<p>Front, center, & rear heaters with min. of 285,000 BTU Bergstrom heaters with continuous copper tube core or equivalent.</p> <p>Left front – 80,000 BTU. Right front – 50,000 BTU. Center (front of rear axle) – 80,000 BTU. Rear (behind rear axle) – 80,000 BTU.</p>
19.	Insulation	Fiberglass insulation in top, sides, corners, front and rear body panels.
20.	Locks	Manual vandal locks front and rear doors.
21.	Seating	
	a. Driver's Seat	<p>National Premium 2000 Routemaster 640 air ride seat, with no armrests.</p> <p>First row right side passenger seat, with 2 lap/shoulder belts.</p>
	b. Seat Spacing	Seats spaced 28.5 inches min., center to center
	c. Upholstery	Brown 52 oz. Koroseal upholstery or equivalent. (NO SEAM WELT.) Foam rubber seats.
22.	Noise Abatement Package	Full length acoustic ceiling; driver compartment decibel level not to exceed 83 db.
23.	Rear Emergency Door	Lower emergency door glass for increased visibility; emergency door lock, 3 point.
24.	Roof Exhaust Fan	Roof exhaust fan mounted in rear escape hatch,

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	omit buzzers in roof hatches.	
25.	Mirrors	
a.	Cross over	Heated Bus Boy crossover mirrors.
b.	Exterior	One left and one right heated 72 sq. inch min. motorized remote control Rosco Open View black mirrors.
c.	Interior	Clear, 10" x 30" min.
26.	Lettering	Words "MOSCOW SCHOOL DISTRICT #281" on both sides of bus in 6" letters. Lettering with number "2" on one bus and "3" on the other, should be 6" high on left and right front corners, right rear (back) and left and right rear (sides.)
27.	Luggage Compartments	Storage compartments must have full metal release bars with T lock handle. Largest capacity available (list Specifications).
28.	Windows	Tinted windshield, 6"x30" sun visor, storm windows, double glazed in driver's left side window and first split sash window on right side. Entrance door shall have double glazed glass. Lower glass on emergency door. Large rear window.
29.	Horn	Air horn mounted one foot behind front cap of the bus, above the driver's window with weather protection horn covers and switch mounted on control panel.
30.	Stop Arm	High visibility LED safety stop arm, STOP- spelled with LEDs. Air Crossing gate to come with disable switch.
31.	Radio System	AM/FM radio w/CD & PA, speakers throughout with front control for speakers; no speaker mounted in driver area, 12 volt LED clock, interior and exterior PA system; speaker for PA system to be mounted under hood.
32.	Monitoring System	One, Zeus6W GPS 247 Security Monitoring System per bus, mounted on the bulkhead above the driver's seat. With one (1) camera mounted in the front of the passenger compartment, one (1) rear facing camera mounted in the middle of the

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		passenger compartment, one (1) camera mounted in the rear of the passenger compartment and (2) 25mm stop arm cameras mounted directly under the Stop arm.
33.	Student Check System	Empty/passenger bus check system with snooze switch.
34.	Literature & Manuals	Bidder to attach literature describing the chassis and body that has been submitted. One service policy, parts manual, service manual (on CDs) or related resource and hard copy of line setting ticket.
35.	Motorist Warning System	7500 Driver Alert System
36.	Storage Compartment	Chain storage compartment to be located on left hand side of bus directly behind rear axle.
37.	Automatic Tire Chains	Onspot Automatic Tire Chains with one set of replacement chainwheels hub (aluminum drive hub w/bearing). Heavy Duty Fire Extinguisher Bracket
38.	Engine Preheater	Espar 42k BTU/h. Programmable controller to be mounted in electrical panel with on/off switch in Driver's control panel.
38.	Warranty	Bidder to state services offered during period of warranty. Minimum 5 years, 100,000-mile engine warranty.