

**Dubuque Community School District  
2300 Chaney Road  
Dubuque, Iowa 52001-3905**

**NOTICE TO**

**SCHOOL BUS BODY AND CHASSIS DEALERS**

Sealed bids will be received in the Office of the Executive Director of Finance and Business Services of the Dubuque Community School District of Dubuque and Jackson Counties, Iowa, until Tuesday, November 28, 2017, prior to 11:00 a.m., for the purchase of replacement school bus chassis and bodies. Bids will be publicly opened on Tuesday, November 28, 2017, at 11:00 a.m. at the Dubuque Community School District, in Room 1D of the Dubuque Community School District, Forum Building, 2300 Chaney Road, Dubuque, Iowa 52001-3095 and any proposals received by mail or delivered after the above stated time will be returned unopened to the Bidder.

Information and specifications may be obtained at the Executive Director of Finance and Business Services office located in the Forum Building, 2300 Chaney Road, Dubuque, Iowa 52001-3095.

By virtue of statutory authority, a preference will be given to products and provisions grown and coal produced within the State of Iowa.

The Board of Directors reserves the right to reject any or all bids and to waive any technicality.

Kevin Kelleher  
Executive Director  
Finance and Business Services

**Dubuque Community School District  
2300 Chaney Road  
Dubuque, Iowa 52001-3095**

**SCHOOL BUS BODY AND CHASSIS BIDS**

**Integrated Unit**

November 8, 2017

The Board of Directors of the Dubuque Community School District of Dubuque and Jackson Counties, Iowa does hereby solicit bids for the furnishing of new school bus body and chassis units. Bids will be in the following division:

- I. Body and Chassis – Integrated Unit Bid:
  - A. Base Bid – Eight (8) Units Included – Bid Sheet, Pages 6-7
    - 1. Conventional 65 Passenger Body – Two (2) Units  
without air conditioning  
with diesel engine  
with Eaton transmission  
Pages 9-46
    - 2. Conventional 65 Passenger Body – Two (2) Units  
without air conditioning  
with gasoline engine  
Pages 47-83
    - 3. Conventional 65 Passenger Body – Two (2) Units  
with air conditioning  
with diesel engine  
Pages 84-120
    - 4. Conventional 65 Passenger Body – Two (2) Units  
with air conditioning  
with diesel engine  
with undercarriage storage compartments  
Pages 121-157
  - B. Bid Sheet – Pages 6-7
  - C. Trade-in Schedule – Page 8
    - 1. For Body Dealers Only – Trade Allowance Sheet, Page 8
      - a. Seven (7) units to be traded in to School Bus Body Dealers. Schedule of Vehicles is attached and included in the Bid Form. Units to be traded under the base bid for eight (8) new units are the following seven (7) School District fleet buses: 714 – 716 – 818 – 819 – 820 – 821 – 822.

Note that dealers must indicate an individual value allowed for each vehicle shown on the trade-in schedule. The School District reserves the right to retain ownership of units offered for trade if needed to increase fleet size for the 2018-2019 school year.

## SCHOOL BUS BODY DEALERS

### SPECIFICATIONS

#### Bid Form, Time and Place of Filing

All bids are to be filed on the forms provided and only proposals submitted on these forms will be considered. All times and dates on these specifications are Central Standard Time.

Bid Form is to be delivered to Kevin Kelleher, Executive Director of Finance and Business Services, Forum Building, 2300 Chaney Road, Dubuque, Iowa 52001-3095, before 11:00 a.m., on Tuesday, November 28, 2017, together with descriptive literature. The bid is to be in a sealed envelope with the words “**School Bus Integrated Body & Chassis Unit Bid,**” as the case may be or “**Bidder’s Alternate Proposal**” clearly marked on the outside thereof.

Bids will be publicly opened in Room 1D of the Dubuque Community School District, Forum Building, 2300 Chaney Road, Dubuque, Iowa 52001-3095 at 11:00 a.m. on Tuesday, November 28, 2017.

#### Bid Withdrawal

Bids can be withdrawn at any time prior to the closing time for the receipt of the bids, but cannot be withdrawn for a period of ninety (90) days after the closing time for the receipt of bids.

#### Rejection of Bids

The District reserves the right to reject any or all bids and to waive any technicality and to be the sole judge of the quality of the school bus body or chassis which has been bid.

The Board further reserves the right to decrease the number of units purchased prior to the acceptance of the bid, or to increase the number of units to be purchased at the unit price for a period of ninety (90) days after the date of acceptance of the bid. Base bids are being solicited on eight (8) replacement units as specified with seven (7) trade-in units going to the successful body dealer. The School District reserves the right to retain ownership of units offered for trade if needed to increase fleet size for the 2018-2019 school year.

#### Freight and Taxes

Bids are to be submitted on a F.O.B., the body factory basis, minus sales, use or excise taxes. Tax exemption certificates, whenever or wherever needed, will be furnished to the successful bidders upon request.

Successful bus body dealers will deliver the finished product from the body builder’s plant to the owner’s facilities in Dubuque, Iowa.

#### Preference for Iowa Products and Labor

By virtue of statutory authority, a preference will be given to products and provisions grown and coal produced within the State of Iowa.

## General Conditions

These specifications are not intended to exclude competitive bids from any manufacturer of superior-quality equipment. If any specifications appear to discriminate against such superior-quality equipment, they should be interpreted to only indicate the equipment's general character and style. Bidders are free to offer equipment, which will secure the results desired, even though not conforming exactly to the specifications. Bidders must, however, specifically describe the respects in which their equipment differs from the specified equipment. Bids on types of equipment and materials other than those specified must be on the same form and observe the same conditions required for specified equipment. Such bids should be plainly marked with the words "**Bidder's Alternate Proposal.**" All such alternate proposals must be enclosed in the same envelope with the regular proposal. The District reserves the right to accept or reject such proposed substitutions.

## Schedule of Delivery

**Dubuque Community School District will take delivery of the ordered units between June 11, 2018 and June 15, 2018.**

Dealers are to state on the bid proposal form the delivery schedule, current and projected. The delivery schedule is to be verified with a letter from the chassis and body unit manufacturer. Said letter is to be attached to the bid proposal. Upon delivery of the buses, the Transportation Department will not accept buses not meeting the specifications of the Dubuque Community School District.

## Trade-ins for Bus Body Dealers Only

See Trade-in Schedule, Page 8

Seven (7) units to be traded-in as follows:

Six (6) each – 65 Passenger Bus Body

One (1) each – 65 Passenger Bus Body with undercarriage storage compartments

Use Schedule and show individual values for each bus.

## Bid Award

Bids will be awarded in each of the above categories as follows:

- I. Integrated School Bus Body and Chassis Units
  - A. Base Bid – Eight (8) Total Units as Specified
    1. Conventional 65 Passenger Body – Two (2) units without air conditioning with diesel engine with Eaton transmission
    2. Conventional 65 Passenger Body – Two (2) Units without air conditioning with gasoline engine
    3. Conventional 65 Passenger Body – Two (2) units with air conditioning with diesel engine

4. Conventional 65 Passenger Body – Two (2) units  
with air conditioning  
with diesel engine  
with undercarriage storage compartments

#### **Questions**

Refer all questions concerning these specifications to:  
Dr. Kris Hall, Transportation Manager (563-552-3272)  
khall@dbqschools.org

#### **Payment**

Funds to pay for the new buses will not be available until May 15, 2018.

Early payment and discount offers will be considered by the School District as part of a bid proposal. Normal payment cycles include invoices received by the last day of the month are due for payment on approximately the 20<sup>th</sup> of the following month. Body dealers are to provide Manufacturer's Statement of Origin for a Vehicle and Application for Certificate of Title to a Vehicle prior to receiving 100% payment for the body units.

#### **Pre-Bid Meeting**

PRE-BID MEETING: No Pre-Bid Meeting was conducted by the School District prior to the issuance of detailed specifications, however, dealers are given an opportunity to provide written comments and suggestions relative to the specifications prior to the opening of bids by the School District.

The School District will consider, for addenda to these specifications, written dealer comments received prior to November 17, 2017. Dealer comments may be addressed by e-mail to [kkelleher@dbqschools.org](mailto:kkelleher@dbqschools.org) or to Kevin Kelleher at fax 563-552-3026. Any addendum or addenda, if issued by the District, will be issued not later than November 20, 2017.

<b>Manufacturer's Specification Sheets</b>
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All dealers are required to submit, along with a Bid Proposal, a copy of the Manufacturer's Vehicle Specification Sheet, Factory Order or Line Card, or similar ordering information. The bid is to include actual vehicle Build Sheet copy, as to how salesperson intends to build vehicle.

# Dubuque Community School District

<b>Integrated Chassis and Body School Bus Unit Bid Sheet</b>
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## EIGHT (8) INTEGRATED BODY AND CHASSIS SCHOOL BUS UNITS

### Base Bid Form – Integrated Unit

The undersigned having read the detailed specifications and being familiar therewith, does hereby propose to furnish school bus units on or before \_\_\_\_\_ days after the receipt of a purchase order from the Dubuque Community School District and at the price indicated below:

Name and Model of Integrated Unit: \_\_\_\_\_

Chassis/Body Model Year: \_\_\_\_\_

#### I. BASE BID – Eight (8) New Integrated Units

A. Conventional 65 Passenger Body/Chassis Unit @ \$ \_\_\_\_\_ x 2 = \$ \_\_\_\_\_ 2 Units  
without air conditioning                      Each                      Total  
with diesel engine  
with Eaton transmission

B. Conventional 65 Passenger Body/Chassis Unit @ \$ \_\_\_\_\_ x 2 = \$ \_\_\_\_\_ 2 Units  
without air conditioning                      Each                      Total  
with gasoline engine

C. Conventional 65 Passenger Body/Chassis Unit @ \$ \_\_\_\_\_ x 2 = \$ \_\_\_\_\_ 2 Units  
with air conditioning                      Each                      Total  
with diesel engine

D. Conventional 65 Passenger Body/Chassis Unit @ \$ \_\_\_\_\_ x 2 = \$ \_\_\_\_\_ 2 Units  
with air conditioning                      Each                      Total  
with diesel engine  
with undercarriage storage compartment

E. Total Price for eight (8) Units                      \$ \_\_\_\_\_ total (8) Units

#### BASE BID – Trade Schedule

Less Trade-in of Seven (7) Units

Trade Allowance from Page 8                      \$ \_\_\_\_\_ (7) Units  
A-G – Per Trade Schedule

#### Complete Unit Net School Cost

Eight (8) New, Less Seven (7) Trades                      \$ \_\_\_\_\_

Bid Submitted by:

Firm: \_\_\_\_\_

Signature: \_\_\_\_\_

Typed or Printed Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State, Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

E-Mail: \_\_\_\_\_

Date: \_\_\_\_\_

**DUBUQUE COMMUNITY SCHOOLS**  
**BUS BODY DEALERS**  
**TRADE-IN SCHEDULES FOR 2019 BUS BODY PURCHASES**  
**BIDS DUE: Tuesday, November 28, 2017, prior to 11:00 a.m.**

Bidders must fill out the trade-in allowance schedule provided below. Trade-in units become the property of the successful Bidder when picked up at the owner's lot. The buses are being traded in their "as is" condition. District reserves the right to retain ownership of trade-in units.

All units offered for trade-in have fiberglass tip hoods, IH diesel engines, Allison automatic transmissions, air brakes, air dryers, power steering, strobe lights, electric wipers and air stop arms with lights. All units are currently in service; therefore, mileage will increase from the totals shown below to the actual day of trade.

Trade-in-Schedule – Seven (7) Units to be traded – Eight (8) Units to be purchased

Unit	Bus #	Capacity	Year	Model Chassis Mfg	Body Mfg	Engine	Trans.	Vin	Mileage (10/1/17)	Tires	Stop Arm	Brakes	Put In Service	Age at 6/2018 Trade	Allowance
A	714	65	2007	IC	IC	DT466	ALLISON 2500	7B365973	133,000	11R 22.5	AIR	AIR	08/06	12Y	\$
B	716	65	2007	IC	IC	DT466	ALLISON 2500	7B365975	131,500	11R 22.5	AIR	AIR	08/06	12Y	\$
C	818	65	2008	IC	IC	DT466	ALLISON 2500	8B506240	121,500	11R 22.5	AIR	AIR	08/07	11Y	\$
D	819 *	65	2008	IC	IC USC	DT466	ALLISON 2500	8B506241	131,000	11R 22.5	AIR	AIR	08/07	11Y	\$
E	820	65	2008	IC	IC	DT466	ALLISON 2500	8B506242	120,000	11R 22.5	AIR	AIR	08/07	11Y	\$
F	821	65	2008	IC	IC	DT466	ALLISON 2500	8B506243	124,000	11R 22.5	AIR	AIR	08/07	11Y	\$
G	822	65	2008	IC	IC	DT466	ALLISON 2500	8B506244	124,000	11R 22.5	AIR	AIR	08/07	11Y	\$

\* Undercarriage Storage Compartment

**TRADE-IN FORM MUST BE SIGNED**    **TOTAL – 7 UNITS A-G**    \$ \_\_\_\_\_

**PERSON:** \_\_\_\_\_ **FIRM:** \_\_\_\_\_ **DATE:** \_\_\_\_\_



2017/2018 DUBUQUE COMMUNITY SCHOOL DISTRICT  
**BUS BODY/CHASSIS SPECIFICATIONS**

**2019 Model**

**CONVENTIONAL 65 PASSENGER CAPACITY BODY/CHASSIS**

Wheelbase 254” or Whichever Body Company Specifies

Chassis Rating: Gross Vehicle Weight Rating:  
29,000 lbs. Minimum

**WITH EATON 7 SPEED TRANSMISSION  
WITH DIESEL ENGINE**

**NOTE:**

Sales person is responsible to inspect this bid spec for changes that are made annually.

\*All bids on chassis equipment shall meet or exceed the specifications listed below and in addition those stated in publication “Minimum Standards for Construction of School Transportation Equipment, IOWA TR-B-3R (Revised) July 15<sup>th</sup>, 2014”, as well as any and all Federal Motor Vehicle Safety Standards.

**281-44.3 (285) School Bus Chassis 65 Passenger/65 Passenger Body Spec.  
Combined**

**254-inch wheelbase**

**44.3 (1) Air Cleaner:**

Shall meet or exceed 44.3 (1) of the Iowa Code Requirements.

Dry element type, properly installed to meet engine manufacturers specifications, with air restriction gauge mounted on air filter housing. Dual filter element is preferred.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (2) Aisle:**

Aisle shall meet or exceed 44.3 (2) of the Iowa Code Legal Requirements.  
Color of aisle shall be Tan.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (3) Alternator:**

Shall meet or exceed 44.3 (3) of the Iowa Code Requirements.

12-volt, 200-amp capacity, belt driven, Delco 28SI, pad mounted brush type alternator, with belt drive capable of handling the rated capacity of the alternator, with a 90-100 Amp capacity at engine idle. Alternator shall have low idle turn on speed or ignition excited alternator turn on.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (4) Axles:**

Front axle – 10,000 LB minimum, with 80W-90 **non-synthetic** oil lube front wheel bearing hubs.

Rear axle – 19,800 LB capacity, with **non-synthetic** oil, rear axle ratio should be determined by limiting the road speed to approximately 75 mph at the maximum engine RPM.

**Example:** 2600 Maximum Governed Engine RPM  
          ÷ .64 Transmission Ratio in Highest Gear  
          4062.50 Corrected Factor  
          ÷ 6.17 Rear Axle Ratio Chosen

$$658.42 \text{ Corrected Factor} \\ \times .1193 \text{ Corrected Tire Factor } 60/503 \text{ Tire RPM, } 11 \text{ R22.5} \\ = 78.55 \text{ mph Maximum Road Speed}$$

Please state your maximum road speed and gear ratio chosen.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (5) Back-Up Warning Alarm:**

Back-up alarm shall be installed behind rear axle and comply with SAE J994B standards, 112dBA.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (6) Battery Compartment:**

Battery compartment shall meet or exceed section 44.3 (6) of the Iowa Code Legal Requirements.

- A. Minimum battery compartment dimensions of 25 inches wide, 14 inches deep and 10 inches high.
- B. A slightly larger battery compartment is preferred.
- C. The battery box shall accommodate 3 batteries.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (7) Battery System:**

Three 12-volt batteries, with a minimum of 650 CCA capacity, at 0 degrees F., with a minimum of 180-minute reserve capacity at 25 Amp drain, (**per battery**). Battery cables shall be # 2/0 or larger copper with sufficient length for slide out battery tray. Battery connections shall be top mounted stud type.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (8) Body Size:**

- 31 ft. – 2 in” body length
- 11 rows of seats both sides
- 65 passenger body size – of sufficient length to provide seat spacing of 28–29 inches – **State your body length and seat spacing below**
- 254-inch wheelbase

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (9) Brakes:**

Shall meet or exceed 44.3 (9) of the Iowa Code Requirements.

Dual Air Brake system with two air tanks and air dryer system. Air dryer to be Bendix AD9. Air compressor to be gear driven, minimum 13.2 cubic feet per minute. Automatic tank drain valves required, **ABS brakes** (4 channels) required. Bendix ABS **shall have traction control option**: Air compressor shall have **Bendix St-4** safety valve for compressor protection. **IH Part # 3513051C1**. DCSD will do the install of the safety valve.

Front Brakes – Air S-CAM 15.0” x 4.0” with 20 Sq. In. Long Stroke brake chambers.

Rear Brakes – Air S-CAM 16.5” x 7.0” with 30 Sq. In. Spring actuated parking brake chambers. Model TR3030 **Long Stroke Brake Chamber.**

Automatic slack adjusters are to be installed on all wheel positions. Rockwell automatic slack adjusters are preferred.

Brake lining to be meritor Q plus and of composition to reduce brake squealing as much as possible. Brake lining shall be Meritor Lining MA212.

**\*NEW: An air parking brake warning indicator with buzzer shall be installed to alert the driver in the event that driver failed to set parking brake after removing driver seatbelt.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (10) and (71) Front Bumper:**

Shall meet or exceed 44.3 (10) and (71) of the Iowa Code Requirements.

Front bumper shall be a minimum of 8” high and constructed of pressed steel channel or equivalent material of sufficient structural and mounting strength to ensure that the front of the vehicle may be lifted by an air bumper-type jack without deformation of the bumper. The bumper shall extend beyond the forward most part of the body, grille, hood and fenders and extend to outer edge of fenders at the bumpers top line.

Tow Hooks:

Two front tow hooks are required by the chassis manufacturer, attached to the chassis frame.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (11) Rear Bumper:**

The rear bumper shall meet or exceed section 44.3 (11) of the Iowa Legal Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (12) Certification:**

The chassis/body manufacturer shall, upon request, certify to the Department of Education that the manufacturer's product(s) meets Iowa Standards on items not covered by FMVSS certification requirements of 49 CFR PART567.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (13) Color:**

Bus body shall be National School Bus Yellow. Shall meet or exceed 44.3 (13) of the Iowa Code Requirements.

Chassis and front bumper shall be black; body cowl, hood, and fenders shall be national school bus yellow. Base Coat/Clear Coat is preferred.

Wheel hubs and rims shall be black.

**Hood** shall be of two tone paint design, top of hood to be non-reflective yellow paint for reduction of sun glare.

**School Bus roof shall be white in color to promote cooler interior temperatures.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (14) Construction:**

Shall meet or exceed 44.3 (14) of the Iowa Code Requirements.

The school bus body shall be constructed of materials certified to be durable under normal operating conditions and shall meet all applicable federal motor vehicle safety standards at the date of manufacture as certified by the bus body manufacturer.

Construction shall be reasonably dust proof and watertight.

The inside height of the body shall be at least 78 inches.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (15) Crossing Control Arms:**

Shall meet or exceed 44.3 (15) of the Iowa Code Requirements.

Crossing arm shall be electric operated, not air operated.

Crossing arm shall have a magnetic mounting base, mounted on bumper to ease vibration when stowed.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (16) Day Time Running Lights (DRL):**

Daytime running lights are required.  
See Sub Rule 44.3 (33)

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (17) Defrosters:**

Shall meet or exceed 44.3 (17) of the Iowa Code Requirements.

The defrosting system shall conform to SAE Standards J381.  
Auxiliary Fans (2) are required.

Auxiliary fans are to be placed so they will clear side windows as well as windshields.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_



**44.3 (18) Doors and Exits:**

Shall meet or exceed 44.3 (18) of the Iowa Code Requirements.

Entrance Service door – shall be outward opening type **electric** operated with heavy-duty door control. The power-operated door must provide for manual operation in case of power failure. Entrance door shall have one exterior handle on forward door leaf for ease of opening from exterior. There shall be two (2) entrance door electrical switches for driver’s convenience, one mounted on steering wheel and the other on left driver’s switch panel.

Step well shall have 3 steps.

Emergency door – shall comply with the requirement of FMVSS217.

Emergency Exits – shall have 2 window exits per side and 2 roof hatches.

Interior emergency exits shall be labeled “Do Not Block” per Iowa law.

Roof hatches shall be Transpec roof hatch model 1975-028-121-03 Hatch.

Rear emergency door and each emergency exit shall be equipped with an audible warning device.

Roof hatches shall also have an audible warning device.

Emergency door shall have a red light above exit.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (19) Driveshaft:**

The driveshaft shall be protected by a metal guard around the circumference of the driveshaft to reduce the possibility of its whipping through the floor.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (20) Driver's Compartment:**

Driver's compartment shall meet or exceed 44.3 (20) of the Iowa Code Requirements.

A driver's document pouch or compartment shall be provided, the pouch is to measure at least 17 inches x 12 inches x 4 inches and be mounted to the barrier behind the driver.

A driver's cup holder mounted for driver's convenience is preferred if available.

A manual noise suppression switch shall be required per Iowa Code. See Also Sub Rule 44.3 (56)

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (21) Electrical System**

See Sub Rule 44.3 (85)

**44.3 (22) Emergency Equipment:**

Emergency equipment must meet all areas of 44.3 (22) of Iowa Administrative Code Legal Requirements and Regulations.

Seat belt webbing cutter of the hand grip style shall be required as part of the emergency equipment.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (23) and (68) Exhaust:**

Shall meet or exceed 44.3 (23) and (68) of the Iowa Code Requirements.

Single, horizontal muffler and long tail pipe, stainless steel, frame mounted on **right side**. Exhaust must be of sufficient length to reach vertical line of rear of bus body.

Exhaust system shall be compliant with new emissions standards for engine model year.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (24) Fenders, Front and Hood:**

Shall meet or exceed 44.3 (24) of the Iowa Code Requirements.

Hood must be forward tilting, fiberglass construction. The hood shall not require more than 20 pounds of force to open and shall include design features to secure hood in an open position.

Hood shall be of two tone paint design, top of hood to be non-reflective yellow paint for reduction of sun glare.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (25) Floor Insulation and Covering:**

Flooring shall meet 44.3 (25) of Iowa Administrative Code Requirements.

The fuel tank sending unit shall be provided with an **access opening** and cover, accessible from within the body.

Floor covering shall be **Tan** in color.

Floor underlayment shall be a minimum of 5/8” exterior grade plywood.

**\*New – Bus shall come equipped with the new one-piece style of floor covering to eliminate flooring gaps and leaks into sub floor.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (26) Frame:**

Shall meet or exceed 44.3 (26) of the Iowa Code Requirements.

Frame rails shall have design and strength characteristics corresponding to standard practice for trucks of the same general load characteristics which are used for highway service. **Frame reinforcement shall be required where needed.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (27) Fuel System:**

Shall meet or exceed 44.3 (27) of the Iowa Code Requirements.

Diesel-powered system – one engine mounted fuel filter with a water/fuel separator, supplied and installed by engine manufacturer.

Fuel Tank – Minimum of 65 U.S. Gallons tank capacity. The actual draw capacity shall be 83% or more of the tank capacity. Fuel tank must have protective cage meeting FMVSS at date of manufacturer in accordance with SBMTC School Bus Design objectives August 1996 edition.

Fuel tank to be mounted on inside frame rail behind rear axle area.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (28) Alternate Fuel. Does not apply to this bus.**

**44.3 (29) Fuel Fill Opening and Cover:**

Must meet Iowa Code 44.3 (29) of Iowa Administrative Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (30) Governor:**

An engine governor is required.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (31) Heating and Air Conditioning:**

Shall meet or exceed Iowa Code 44.3 (31) Of Iowa Administration Code Requirements.

Heaters:

Interior body heating system shall include

- A. One left front heater with defroster minimum of 90,000 BTU, with H/D fan motors.
- B. One right front heater with defroster minimum of 50,000 BTU, with H/D fan motor
- C. One left side rear, under seat, heater mounted rear of wheel well, minimum of 80,000 BTU rating with heavy duty fan motors.
- D. All heater cores shall have changeable filter to protect cores from dirt.
- E. Body dealers shall be responsible for engine coolant protection to minus 40 degrees F and match chassis manufacturers engine coolant.

Heating system plumbing should be of **parallel** plumbing design, but series plumbing design is acceptable.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (32) Heating System:**

Shall meet or exceed 44.3 (32) of the Iowa Code Requirements.

**Coolant protection shall be minus 40 degrees F from factory.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (33) Headlamps:**

Shall meet or exceed 44.3 (33) of the Iowa Code Requirements.

Halogen bulbs required.

Day time running lights system shall be provided.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

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**44.3 (34) Hinges:**

Must meet Iowa Code 44.3 (34) requirements.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

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**44.3 (35) Horn:**

Shall meet or exceed 44.3 (35) of the Iowa Code Requirements.

Dual electric horns meeting SAE Standard J377.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

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**44.3 (36) Identification:**

Bus identification must meet section 44.3 (36) of the Iowa Code Requirements.

Bus must have “Dubuque Community School District” vinyl decal on each side of bus in 6-inch letters.

Bus must have its designated numbers vinyl decal in 6-inch black letters on the following areas:

- A. Next to entrance door
- B. Above entrance door-behind bus manufacturer decal.
- C. On rear, below tail light on right side of bus
- D. Above driver’s window and visible from the left side-behind bus manufacturer decal.
- E. On left side of bus below stop arm area
- F. The front bumper is to have 6 inch **yellow reflective** numbers on the left front area of the bumper
- G. The words “Diesel Fuel” to be displayed on or near fuel access cover.

**SPECIAL NOTE:** The bus company will install the bus identification and fleet numbers. **Bus fleet numbers are to be: 978-979.**

Meets above specifications:             yes             no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (37) Instruments:**

Shall meet or exceed 44.3 (37) of the Iowa Code Requirements.

Instrument panel must have the following instrumentation.

- A. Speedometer
- B. Odometer – 7 digits including tenths of miles
- C. Voltmeter with alternator malfunction indicator light (if available)
- D. Oil pressure gauge – with low oil warning light and alarm



- E. Water temperature gauge with high temp alarm and warning light
- F. Fuel gauge
- G. High beam indicator
- H. Dual air pressure gauges with low air buzzer
- I. Turn signal indicator
- J. Glow plug indicator where appropriate
- K. Tachometer
- L. Rheostatically controlled dash panel lights
- M. Hour meter required
- N. DEF Gauge
- O. Transmission temperature gauge
- P. Headlight warning buzzer with key off

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (38) Insulation:**

Shall meet 44.3 (38) of the Iowa Code Requirements.

Thermal insulation in the ceiling and the walls shall be fire resistant, UL-approved and a minimum 1 ½” thick with a minimum R-value of 5.5. Roof bows shall be insulated in accordance with 44.3 (38) “a”.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (39) Interior:**

Interior must meet 44.3 (39) of the Iowa Code Requirements.

Sound insulation package to reduce noise in ceiling throughout entire bus interior is required.

**Child Reminder System:** Bus shall come equipped with Child Reminder System, for drivers to walk to back of bus and deactivate the system before getting off the bus, insuring “No Child Is Left Behind”.

**Inside Height: Inside Body Height Shall be 78 Inches.**

\*New – bus ceiling interior shall have rivets instead of sheet metal screws.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (40) Lamps and Signals:**

All lamps and signals must meet 44.3 (40) of Iowa Code Requirements.

Bus body shall have (2) 7-inch amber turn signal lamps mounted on body front cowl below windshield on each front body corner. Hood fender mounted turn signal lamps are **not** allowed.

Black visors over 8 light warning system lens is **not** required.

All protruding marker/clearance lights to be mounted with armor guards.

Strobe light – Bus shall be equipped with low profile, all weather exterior, heavy duty strobe, double flash, **mounted not less than one foot or more than 18 inches from rear center of bus is required.**

Specialty Strobe Model 205 Mini is preferred or equivalent.

\*New: All exterior lights shall be L.E.D.

The strobe light must be controlled by a separate switch with an indicator light, when lit will indicate that the strobe is on.

The strobe must be approved by Iowa Department of Transportation.

**K. Warning Signal Lamps:** The buses shall come with “Supplemental Warning Lights” supplied loose with bus. Weldon Part Number W3200-000-11 Kit. The DCSD will install the system.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (41) Measurements:**

Measurements must meet or exceed 44.3 (41) of Iowa Code Requirements.

Bus overall height, length, and width shall not exceed the maximum allowed by the Iowa D.O.T.

Bus interior height shall be 78 inches.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (42) Metal Treatment:**

Metal treatment must meet or exceed 44.3 (42) of the Iowa Code Requirements.

Under body of bus body must be completely sealed and undercoated for further rust prevention.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (43) Mirrors:**

Mirrors must meet or exceed 44.3 (43) of the Iowa Code Requirements.

**Rear view mirrors – Exterior:**

Rosco “Open View” exterior rear view mirrors, to be mounted on body so as to not obstruct vision of seated driver to the right or left. The mirrors are to be “heated”.

Heated mirrors should be on a “Heated Mirror Timer” of about 12 to 30 minutes.

**\*New: Remote control rear view mirrors both left and right shall be required.**

**Rear view mirrors – Interior:**

Must be 6” x 30” Rosco mirror minimum.

**Crossover mirrors:**

Dealers to use Mirror Lite High Def Busboy Crossover “heated” hood mirrors.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

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**44.3 (44) Mounting:**

Mounting of bus body shall meet or exceed 44.3 (44) of Iowa Code Requirements.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

**44.3 (45) Mud Flaps:**

Mud flaps shall meet or exceed 44.3 (45) of the Iowa Code Requirements.  
Mud flaps shall be rubber type, not vinyl.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (46) Oil Filter:**

Engine mounted oil filter must be replaceable element type (spin on preferred).

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (47) Openings:**

All openings in the floor board or fire wall between chassis and passenger compartment must be sealed.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (48) GVWR: Passenger Load**

29,000 LB Minimum

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (49) and (58) Passenger Securement Seating System:**

Passenger securement shall meet or exceed 44.3 (49 )and (58) of the Iowa Code Requirements.

**\*New: Bus shall come equipped with two lap/shoulder restraint seats. Flexible design feature, thus allowing three-two seating on the same 39-inch seat, depending on student size. Locate the seats at position 1R and 3R from front of bus.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (50) Public Address System:**

Bus shall be equipped with a public address system.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (51) Radio System:**

We will install our own 2-way radio.

Bus shall be equipped with an AM/FM Stereo Radio System with PA system, including speakers throughout bus interior.

**\*New: Two-way radio coaxial cable – factory installed and routed in bus body.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (52) Retroreflective Material:**

Retroreflective material shall meet or exceed 44.3 (52) of the Iowa Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (54) Rub Rails:**

Rub rails shall meet or exceed 44.3 (54) of the Iowa Code Requirements.

**\*New: Rub rails shall be sealed on top edge for better corrosion protection.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (55) and (57) Seats and Crash Barrier:**

Seats and crash barriers shall meet or exceed 44.3 (55)and(57) of the Iowa Code Requirements.

Seat cover material shall be a minimum of 42-ounce material.

Passenger seats shall be heavy duty construction, brown or tan in color, seat spacing shall be approximately 28–29 inches. Bidder shall provide seat material specifications and diagrams of seat spacing and seat construction with bid. Passenger seats shall be 28” New York Style High Back construction.

**\*New – Bus seating and barriers shall be equipped with fire block material.**

Bus seat backs shall be rated for vest cam wrap style belts.

All seats shall meet applicable FMVSS requirements and seat frames shall be capable for installation of Type 2 belts and/or Integrated Child Safety (ICS) restraint systems. Conversion of seats shall not require the removal of the seat from the bus floor and will re-use the base frame of the standard seat.

Meets above specifications:            ( ) yes                            ( ) no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (56) Driver’s Seat:**

Driver’s Seat shall meet or exceed the 44.3 (56) of the Iowa Code Requirements.

Driver’s seat shall be an “air” spring suspension operated, high back seat such as manufacturer “National” brand, model 2000 is preferred, with lumbar adjustment, with seat positioning, and range of adjustments to accommodate comfortable actuation of the foot control pedals by 95 percent of male/female adult population.

Driver’s seat shall be comfortable foam padding.



Driver's seat shall have armrests. Seat bottom cushion shall have multiple adjustment positions to allow changes in seat bottom angle.

Driver's seat shall be **cloth** upholstery.

Driver's seat belt shall incorporate high visibility material.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (58) Seating Passenger Restraints:**

No seat belts are required, seat backs shall be rated for vest cam wrap style belts.

**\*Note: Also See 44.3 (49) for special lap/shoulder bus passenger seating.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (59) Shock Absorbers:**

Chassis shall be equipped with double action shock absorbers compatible with manufacturers rated axle capacity at each wheel location.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (60) Steps:**

Bus steps shall meet or exceed 44.3 (60) of the Iowa Code Requirements.

Bus step well shall have 3 steps. (Four (4) steps if you count the top floor level as a step.)

**\*New: A right side step well hand rail shall be installed in step well for student access.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (61) Step Treads:**

Step treads shall meet or exceed 44.3 (61) of the Iowa Code Requirements.

Step treads shall be Koroseal Pebble Top with Pebble White Nosing.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (62) Stirrup Steps:**

Stirrup steps are required as in 44.3 (62) of the Iowa Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (63) Stop Signal Arm:**

Stop arm shall meet or exceed 44.3 (63) of the Iowa Code Requirements.

Stop arm shall be electric operated **not** vacuum or air.

Stop arm must be equipped with LED, strobe bulbs.

Specialty MFG model 7980E is preferred.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (64) Storage Compartment:**

Bus storage compartments shall meet or exceed 44.3 (64) of Iowa code requirements.

**\*New: A storage compartment shall be located on left side dome panel area above driver in addition to the front bulkhead storage compartment. Both storage compartments should be non-lockable.**

There shall be an overhead enclosed storage compartment above the windshield to house the first aid kit, fire extinguisher, body fluids kit, with approved glass window (if equipped) in door opening and labeled as safety equipment.

Safety equipment compartment shall be plainly labeled to indicate location of equipment.

An enclosed space shall be provided in the driver’s compartment for storing manuals and bus driver records.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (65) Suspension:**

Shall meet or exceed 44.3 (65) of the Iowa Code Requirements.

Front leaf type springs shall have a stationary eye at one end and shall be protected by a wrapped leaf in addition to the main leaf. Parabolic or taper leaf springs are acceptable. Front springs capacity 10,000 LB minimum.

Rear suspension to be air ride 19,000 LB minimum, 21,000 LB preferred.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (66) Steering System:**

Shall meet or exceed 44.3 (66) of the Iowa Code Requirements.

Power Steering is required.

The steering system shall be designed to provide a means for lubrication of all wear points.

Sheppard M-100 power or equivalent.

Steering column – tilting required.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (67) Sun Shield:**

Shall meet or exceed section 44.3 (67) of the Iowa Code Requirements.

Sun shield shall be an interior adjustable transparent sun shield not less than 6” by 30” with a finished edge, and shall be installed in a position convenient for use by driver.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (68) Tailpipe:**

See Sub Rule 44.3 (23)

Exhaust tailpipe shall exit at rear of bus, on right side.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (69) Throttle:**

A driver operated mechanical or electronic variable speed hand throttle shall be provided.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3A (69A) Engine Power and Grade ability:**

250 horsepower Cummins Electronic Diesel, 660 LB-FT Net Torque at 1600 RPM, minimum. The engine shall have a key operated electric engine shut down. The engine shall have an engine mounted primary fuel filter. Engine shall meet EPA Emissions regulations, for model year of engine.

**Cab Sound Insulation:** Engine compartment shall have cab sound insulation including dash insulator and engine cover insulator.

**Engine Fuel Heater:** Engine shall have a fuel water separator with a thermostatic controlled heater, and water in fuel indicator combination.

**Engine Starter Motor:** Engine shall have a Delco Remy 38 MT starter motor with gear reduction drive.

**Engine Cooling:** The engine shall have an air operated, **Horton Drive Master 2 speed fan assembly**. Engine shall have a heavy duty radiator for engine and transmission cooling.

**Engine Coolant:** Engine shall have extended life coolant.

**Engine Block Heater:** The block heater should be a 120-volt AC/750-watt element. The block heater cord socket shall be located in front bumper.

**Engine Intake Manifold Heater:** Engine shall have intake manifold heater for cold weather starting, controlled by the engine ECM.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (70) Tires - Rims:**

Shall meet or exceed 44.3 (70) of the Iowa Code Requirements.

Rims – 8.25 x 22.5 Disc Steel Hub Piloted 10 Stud.

Front tires – 11R 22.5 Hankook AH12 Load Range G, 14 ply tubeless.

Rear tires – 11R 22.5 Hankook Z35A Load Range G, 14 ply tubeless.

Refer to 44.3 (4) Axles for more wheel information.

Meets above specifications:             yes             no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (71) Front Tow Hooks:**

Also See Sub Rule 44.3 (10)

**44.3 (72) Rear Tow Hooks:**

Rear tow hooks shall meet or exceed 44.3 (72) of the Iowa Code Requirements.

Meets above specifications:             yes             no

Description: \_\_\_\_\_  
\_\_\_\_\_

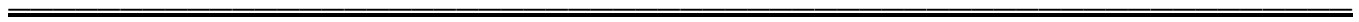
**44.3 (74) Transmission:**

Shall meet or exceed section 44.3 (74) of the Iowa Code Requirements.

**\*NEW: Eaton Procision EDCO-6F107A 7-speed, dual clutch transmission.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_



**44.3 (75) Trash Container and Holding Device:**

Trash container shall meet or exceed 44.3 (75) of the Iowa Code Requirements.

Dubuque Schools will install the trash container, please leave trash container loose in bus.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_



**44.3 (76) Turning radius:**

Chassis shall have a curb to curb measurement of not more than 42 ½ feet in both directions, a tire path radius of 34 feet is preferred.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_





**44.3 (77) Undercoating:**

Undercoating shall meet or exceed 44.3 (77) of the Iowa Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (80) Ventilation:**

Ventilation requirements shall meet or exceed 44.3 (80) of the Iowa Code Requirements.

See also sub rule 44.3 (18)

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (81) Wheel Housings:**

The wheel housings shall meet or exceed 44.3 (81) of the Iowa Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (82) Windshield and Windows:**

Windshield and windows shall meet or exceed 44.3 (82) of the Iowa Code Requirements.

Windshields shall be tinted glass of AS-I Rating, with upper shaded band.

An insulated double glass (thermopane) window shall be located behind service entrance on right side, at first right hand passenger seat and at first left hand passenger seat behind driver.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (83) Windshield Washers:**

Windshield washers shall meet or exceed 44.3 (83) of the Iowa Code Requirements.

Windshield washer shall be electric design.

Windshield washer tank should have a capacity of approximately six (6) quarts.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (84) Windshield Wipers:**

Windshield wipers shall meet or exceed 44.3 (84) of the Iowa Code Requirements.

Windshield wipers shall be a positive action motor, 2 speed, **with intermittent electric** wiper motor design.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (85) Wiring:**

Wiring shall meet or exceed 44.3 (85) of the Iowa Code Requirement.

Wiring circuits shall be protected by manual reset circuit breakers SAE Type III with trip indicators, 10 amp and larger at main panel.

All circuits shall be wired through ignition switch or ignition switch controlled relays, including the overhead warning light system.

All bus wiring shall be color coded and numbered for ease of circuit identification.

**A master bus chassis/body wiring diagram shall be supplied with each new bus,** the master bus-wiring diagram shall also include all the wiring schematics for the options that the bus was built with.

The bus body wiring shall be of the 12-volt system.

All the bus body wiring shall have an amperage capacity exceeding the design load by at least 25 percent.

All wiring to be protected by grommets when passed through a metal or sharp opening.

Bus body shall be compatible with chassis multiplex wiring.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**Child Reminder System:**

Bus shall come equipped with Child Reminder System, for drivers to walk to back of bus and deactivate the system before getting off the bus, insuring “No Child Left Behind”.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**Service Manuals:**

Chassis/Body manufacturer shall provide an **owner/operators manual, chassis/body service manual, complete parts manual, master wiring schematic and troubleshooting manual**, with each group bus purchase order.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**Other:**

**Warranty:**

Chassis/Body dealer shall provide complete warranty information schedule with bid proposal.

Chassis/Body dealer shall provide any information regarding extended warranty purchasing.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**Delivery Date:**

Buses are to be delivered to Dubuque Community School District between June 11, 2018 and June 15, 2018.

State your delivery date, if different from above.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**Programmable Parameters:**

- A. Buses shall be delivered with the cruise control feature turned off.
- B. Buses shall be delivered with (8) eight way warning system maximum initiation speed set up from 45 to 65 miles per hour.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**Optional: Extended Warranty:**

Specify manufacturer's extended engine and transmission/driveline warranty package.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**Other:**

Chassis/Body dealer is responsible for any chassis/Body repairs before the bus is put into service by the school district.

Chassis dealer is to report any cost savings, such as early pay discounts.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

\_\_\_\_\_

2017/2018 DUBUQUE COMMUNITY SCHOOL DISTRICT  
**BUS BODY/CHASSIS SPECIFICATIONS**

**2019 Model**

**CONVENTIONAL 65 PASSENGER CAPACITY BODY/CHASSIS**

Wheelbase 254” or Whichever Body Company Specifies

Chassis Rating: Gross Vehicle Weight Rating:

29,000 lbs. Minimum

**WITH GASOLINE ENGINE**

NOTE:

Sales person is responsible to inspect this bid spec for changes that are made annually.

\*All bids on chassis equipment shall meet or exceed the specifications listed below and in addition those stated in publication “Minimum Standards for Construction of School Transportation Equipment, IOWA TR-B-3R (Revised) July 15<sup>th</sup>, 2014”, as well as any and all Federal Motor Vehicle Safety Standards.

**281-44.3 (285) School Bus Chassis 65 Passenger/65 Passenger Body Spec. Combined**

**254-inch wheelbase**

**44.3 (1) Air Cleaner:**

Shall meet or exceed 44.3 (1) of the Iowa Code Requirements.

Dry element type, properly installed to meet engine manufacturers specifications, with air restriction gauge mounted on air filter housing. Dual filter element is preferred.

Meets above specifications:            ( ) yes            ( ) no

Description: \_\_\_\_\_

**44.3 (2) Aisle:**

Aisle shall meet or exceed 44.3 (2) of the Iowa Code Legal Requirements.  
Color of aisle shall be Tan.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (3) Alternator:**

Shall meet or exceed 44.3 (3) of the Iowa Code Requirements.

12-volt, 200-amp capacity, belt driven, Delco 28SI, pad mounted brush type alternator, with belt drive capable of handling the rated capacity of the alternator, with a 90-100 Amp capacity at engine idle. Alternator shall have low idle turn on speed or ignition excited alternator turn on.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (4) Axles:**

Front axle – 10,000 LB minimum, with 80W-90 **non-synthetic** oil lube front wheel bearing hubs.

Rear axle – 19,800 LB capacity, with **non-synthetic** oil, rear axle ratio should be determined by limiting the road speed to approximately 75 mph at the maximum engine RPM.

**Example:** 2700 Maximum Governed Engine RPM  
          ÷ .74 Transmission Ratio in Highest Gear  
          3648.64 Corrected Factor  
          ÷ 5.83 Rear Axle Ratio Chosen



$$\begin{aligned} &625.84 \text{ Corrected Factor} \\ &\quad \times .1193 \text{ Corrected Tire Factor } 60/503 \text{ Tire RPM, } 11 \text{ R22.5} \\ &= 74.66 \text{ mph Maximum Road Speed} \end{aligned}$$

Please state your maximum road speed and gear ratio chosen.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (5) Back-Up Warning Alarm:**

Back-up alarm shall be installed behind rear axle and comply with SAE J994B standards, 112dBA.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (6) Battery Compartment:**

Battery compartment shall meet or exceed section 44.3 (6) of the Iowa Code Legal Requirements.

- A. Minimum battery compartment dimensions of 25 inches wide, 14 inches deep and 10 inches high.
- B. A slightly larger battery compartment is preferred.
- C. The battery box shall accommodate 3 batteries.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (7) Battery System:**

Three 12-volt batteries, with a minimum of 650 CCA capacity, at 0 degrees F., with a minimum of 180-minute reserve capacity at 25 Amp drain, (**per battery**). Battery cables shall be # 2/0 or larger copper with sufficient length for slide out battery tray. Battery connections shall be top mounted stud type.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (8) Body Size:**

- 31 ft. – 2 in” body length
- 11 rows of seats both sides
- 65 passenger body size – of sufficient length to provide seat spacing of 28–29 inches – **State your body length and seat spacing below**
- 254-inch wheelbase

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (9) Brakes:**

Shall meet or exceed 44.3 (9) of the Iowa Code Requirements.

Dual Air Brake system with two air tanks and air dryer system. Air dryer to be Bendix AD9. Air compressor to be minimum 13.2 cubic feet per minute. Automatic tank drain valves required, **ABS brakes** (4 channels) required. Bendix **ABS shall have traction control option:** Air compressor shall have **Bendix St-4** safety valve for compressor protection. **IH Part # 3513051C1.** DCSD will do the install of the safety valve.

Front Brakes – Air S-CAM 15.0” x 4.0” with 20 Sq. In. Long Stroke brake chambers.

Rear Brakes – Air S-CAM 16.5” x 7.0” with 30 Sq. In. Spring actuated parking brake chambers. Model TR3030 **Long Stroke Brake Chamber.**

Automatic slack adjusters are to be installed on all wheel positions. Rockwell automatic slack adjusters are preferred.

Brake lining to be meritor Q plus and of composition to reduce brake squealing as much as possible. Brake lining shall be Meritor Lining MA212.

**\*NEW: An air parking brake warning indicator with buzzer shall be installed to alert the driver in the event that driver failed to set parking brake after removing driver seatbelt.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (10) and (71) Front Bumper:**

Shall meet or exceed 44.3 (10) and (71) of the Iowa Code Requirements.

Front bumper shall be a minimum of 8” high and constructed of pressed steel channel or equivalent material of sufficient structural and mounting strength to ensure that the front of the vehicle may be lifted by an air bumper-type jack without deformation of the bumper. The bumper shall extend beyond the forward most part of the body, grille, hood and fenders and extend to outer edge of fenders at the bumpers top line.

Tow Hooks:

Two front tow hooks are required by the chassis manufacturer, attached to the chassis frame.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (11) Rear Bumper:**

The rear bumper shall meet or exceed section 44.3 (11) of the Iowa Legal Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (12) Certification:**

The chassis/body manufacturer shall, upon request, certify to the Department of Education that the manufacturer's product(s) meets Iowa Standards on items not covered by FMVSS certification requirements of 49 CFR PART567.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (13) Color:**

Bus body shall be National School Bus Yellow. Shall meet or exceed 44.3 (13) of the Iowa Code Requirements.

Chassis and front bumper shall be black; body cowl, hood, and fenders shall be national school bus yellow. Base Coat/Clear Coat is preferred.

Wheel hubs and rims shall be black.

**Hood** shall be of two tone paint design, top of hood to be non-reflective yellow paint for reduction of sun glare.

**School Bus roof shall be white in color to promote cooler interior temperatures.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (14) Construction:**

Shall meet or exceed 44.3 (14) of the Iowa Code Requirements.

The school bus body shall be constructed of materials certified to be durable under normal operating conditions and shall meet all applicable federal motor vehicle safety standards at the date of manufacture as certified by the bus body manufacturer.

Construction shall be reasonably dust proof and watertight.

The inside height of the body shall be at least 78 inches.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (15) Crossing Control Arms:**

Shall meet or exceed 44.3 (15) of the Iowa Code Requirements.

Crossing arm shall be electric operated, not air operated.

Crossing arm shall have a magnetic mounting base, mounted on bumper to ease vibration when stowed.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (16) Day Time Running Lights (DRL):**

Daytime running lights are required.  
See Sub Rule 44.3 (33)

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (17) Defrosters:**

Shall meet or exceed 44.3 (17) of the Iowa Code Requirements.

The defrosting system shall conform to SAE Standards J381.

Auxiliary Fans (2) are required.

Auxiliary fans are to be placed so they will clear side windows as well as windshields.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (18) Doors and Exits:**

Shall meet or exceed 44.3 (18) of the Iowa Code Requirements.

Entrance Service door – shall be outward opening type **electric** operated with heavy-duty door control. The power-operated door must provide for manual operation in case of power failure. Entrance door shall have one exterior handle on forward door leaf for ease of opening from exterior. There shall be two (2) entrance door electrical switches for driver’s convenience, one mounted on steering wheel and the other on left driver’s switch panel.

Step well shall have 3 steps.

Emergency door – shall comply with the requirement of FMVSS217.

Emergency Exits – shall have 2 window exits per side and 2 roof hatches.

Interior emergency exits shall be labeled “Do Not Block” per Iowa law.

Roof hatches shall be Transpec roof hatch model 1975-028-121-03 Hatch.

Rear emergency door and each emergency exit shall be equipped with an audible warning device.

Roof hatches shall also have an audible warning device.

Emergency door shall have a red light above exit.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (19) Driveshaft:**

The driveshaft shall be protected by a metal guard around the circumference of the driveshaft to reduce the possibility of its whipping through the floor.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (20) Driver's Compartment:**

Driver's compartment shall meet or exceed 44.3 (20) of the Iowa Code Requirements.

A driver's document pouch or compartment shall be provided, the pouch is to measure at least 17 inches x 12 inches x 4 inches and be mounted to the barrier behind the driver.

A driver's cup holder mounted for driver's convenience is preferred if available.

A manual noise suppression switch shall be required per Iowa Code. See Also Sub Rule 44.3 (56)

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (21) Electrical System**

See Sub Rule 44.3 (85)

**44.3 (22) Emergency Equipment:**

Emergency equipment must meet all areas of 44.3 (22) of Iowa Administrative Code Legal Requirements and Regulations.

Seat belt webbing cutter of the hand grip style shall be required as part of the emergency equipment.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_



**44.3 (23) and (68) Exhaust:**

Shall meet or exceed 44.3 (23) and (68) of the Iowa Code Requirements.

Single, horizontal muffler and long tail pipe, stainless steel, frame mounted on **right side**. Exhaust must be of sufficient length to reach vertical line of rear of bus body.

Exhaust system shall be compliant with new emissions standards for engine model year.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (24) Fenders, Front and Hood:**

Shall meet or exceed 44.3 (24) of the Iowa Code Requirements.

Hood must be forward tilting, fiberglass construction. The hood shall not require more than 20 pounds of force to open and shall include design features to secure hood in an open position.

Hood shall be of two tone paint design, top of hood to be non-reflective yellow paint for reduction of sun glare.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (25) Floor Insulation and Covering:**

Flooring shall meet 44.3 (25) of Iowa Administrative Code Requirements.

The fuel tank sending unit shall be provided with an **access opening** and cover, accessible from within the body.

Floor covering shall be **Tan** in color.

Floor underlayment shall be a minimum of 5/8” exterior grade plywood.

**\*New – Bus shall come equipped with the new one-piece style of floor covering to eliminate flooring gaps and leaks into sub floor.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (26) Frame:**

Shall meet or exceed 44.3 (26) of the Iowa Code Requirements.

Frame rails shall have design and strength characteristics corresponding to standard practice for trucks of the same general load characteristics which are used for highway service. **Frame reinforcement shall be required where needed.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (27) Fuel System:**

Shall meet or exceed 44.3 (27) of the Iowa Code Requirements.

**Gasoline**-powered system.

Fuel Tank – Minimum of 60 U.S. Gallons tank capacity. The actual draw capacity shall be 83% or more of the tank capacity. Fuel tank must have protective cage meeting FMVSS at date of manufacturer in accordance with SBMTC School Bus Design objectives August 1996 edition.

Fuel tank to be mounted on inside frame rail behind rear axle area.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (28) Alternate Fuel. GASOLINE**

**44.3 (29) Fuel Fill Opening and Cover:**

Must meet Iowa Code 44.3 (29) of Iowa Administrative Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (30) Governor:**

An engine governor is required.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (31) Heating and Air Conditioning:**

Shall meet or exceed Iowa Code 44.3 (31) Of Iowa Administration Code Requirements.

Heaters:

Interior body heating system shall include

- A. One left front heater with defroster minimum of 90,000 BTU, with H/D fan motors.
- B. One right front heater with defroster minimum of 50,000 BTU, with H/D fan motor
- C. One left side rear, under seat, heater mounted rear of wheel well, minimum of 80,000 BTU rating with heavy duty fan motors.
- D. All heater cores shall have changeable filter to protect cores from dirt.
- E. Body dealers shall be responsible for engine coolant protection to minus 40 degrees F and match chassis manufacturers engine coolant.

Heating system plumbing should be of **parallel** plumbing design, but series plumbing design is acceptable.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_



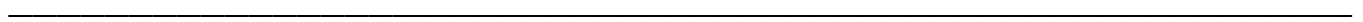
**44.3 (32) Heating System:**

Shall meet or exceed 44.3 (32) of the Iowa Code Requirements.

**Coolant protection shall be minus 40 degrees F from factory.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_



**44.3 (33) Headlamps:**

Shall meet or exceed 44.3 (33) of the Iowa Code Requirements.

Halogen bulbs required.

Day time running lights system shall be provided.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (34) Hinges:**

Must meet Iowa Code 44.3 (34) requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (35) Horn:**

Shall meet or exceed 44.3 (35) of the Iowa Code Requirements.

Dual electric horns meeting SAE Standard J377.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (36) Identification:**

Bus identification must meet section 44.3 (36) of the Iowa Code Requirements.

Bus must have “Dubuque Community School District” vinyl decal on each side of bus in 6-inch letters.

Bus must have its designated numbers vinyl decal in 6-inch black letters on the following areas:

- A. Next to entrance door
- B. Above entrance door-behind bus manufacturer decal.
- C. On rear, below tail light on right side of bus
- D. Above driver’s window and visible from the left side-behind bus manufacturer decal.
- E. On left side of bus below stop arm area
- F. The front bumper is to have 6 inch **yellow reflective** numbers on the left front area of the bumper
- G. The words “**Gasoline**” to be displayed on or near fuel access cover.

**SPECIAL NOTE:** The bus company will install the bus identification and fleet numbers. **Bus fleet numbers are to be: 980-981.**

Meets above specifications:            ( ) yes                    ( ) no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (37) Instruments:**

Shall meet or exceed 44.3 (37) of the Iowa Code Requirements.

Instrument panel must have the following instrumentation.

- A. Speedometer
- B. Odometer – 7 digits including tenths of miles
- C. Voltmeter with alternator malfunction indicator light (if available)
- D. Oil pressure gauge – with low oil warning light and alarm

- E. Water temperature gauge with high temp alarm and warning light
- F. Fuel gauge
- G. High beam indicator
- H. Dual air pressure gauges with low air buzzer
- I. Turn signal indicator
- J. Tachometer
- K. Rheostatically controlled dash panel lights
- L. Hour meter required
- M. Transmission temperature gauge
- N. Headlight warning buzzer with key off

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (38) Insulation:**

Shall meet 44.3 (38) of the Iowa Code Requirements.

Thermal insulation in the ceiling and the walls shall be fire resistant, UL-approved and a minimum 1 ½” thick with a minimum R-value of 5.5. Roof bows shall be insulated in accordance with 44.3 (38) “a”.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (39) Interior:**

Interior must meet 44.3 (39) of the Iowa Code Requirements.

Sound insulation package to reduce noise in ceiling throughout entire bus interior is required.

**Child Reminder System:** Bus shall come equipped with Child Reminder System, for drivers to walk to back of bus and deactivate the system before getting off the bus, insuring “No Child Is Left Behind”.

**Inside Height: Inside Body Height Shall be 78 Inches.**

\*New – bus ceiling interior shall have rivets instead of sheet metal screws.

Meets above specifications:            ( ) yes                    ( ) no

Description: \_\_\_\_\_

**44.3 (40) Lamps and Signals:**

All lamps and signals must meet 44.3 (40) of Iowa Code Requirements.

Bus body shall have (2) 7-inch amber turn signal lamps mounted on body front cowl below windshield on each front body corner. Hood fender mounted turn signal lamps are **not** allowed.

Black visors over 8 light warning system lens is **not** required.

All protruding marker/clearance lights to be mounted with armor guards.

Strobe light – Bus shall be equipped with low profile, all weather exterior, heavy duty strobe, double flash, **mounted not less than one foot or more than 18 inches from rear center of bus is required.**

Specialty Strobe Model 205 Mini is preferred or equivalent.

\*New: All exterior lights shall be L.E.D.



The strobe light must be controlled by a separate switch with an indicator light, when lit will indicate that the strobe is on.

The strobe must be approved by Iowa Department of Transportation.

**K. Warning Signal Lamps:** The buses shall come with “Supplemental Warning Lights” supplied loose with bus. Weldon Part Number W3200-000-11 Kit. The DCSD will install the system.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (41) Measurements:**

Measurements must meet or exceed 44.3 (41) of Iowa Code Requirements.

Bus overall height, length, and width shall not exceed the maximum allowed by the Iowa D.O.T.

Bus interior height shall be 78 inches.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (42) Metal Treatment:**

Metal treatment must meet or exceed 44.3 (42) of the Iowa Code Requirements.

Under body of bus body must be completely sealed and undercoated for further rust prevention.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (43) Mirrors:**

Mirrors must meet or exceed 44.3 (43) of the Iowa Code Requirements.

**Rear view mirrors – Exterior:**

Rosco “Open View” exterior rear view mirrors, to be mounted on body so as to not obstruct vision of seated driver to the right or left. The mirrors are to be “heated”.

Heated mirrors should be on a “Heated Mirror Timer” of about 12 to 30 minutes.

**\*New: Remote control rear view mirrors both left and right shall be required.**

**Rear view mirrors – Interior:**

Must be 6” x 30” Rosco mirror minimum.

**Crossover mirrors:**

Dealers to use Mirror Lite High Def Busboy Crossover “heated” hood mirrors.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

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**44.3 (44) Mounting:**

Mounting of bus body shall meet or exceed 44.3 (44) of Iowa Code Requirements.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

**44.3 (45) Mud Flaps:**

Mud flaps shall meet or exceed 44.3 (45) of the Iowa Code Requirements.  
Mud flaps shall be rubber type, not vinyl.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (46) Oil Filter:**

Engine mounted oil filter must be replaceable element type (spin on preferred).

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (47) Openings:**

All openings in the floor board or fire wall between chassis and passenger compartment must be sealed.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (48) GVWR: Passenger Load**

29,000 LB Minimum

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (49) and (58) Passenger Securement Seating System:**

Passenger securement shall meet or exceed 44.3 (49 )and (58) of the Iowa Code Requirements.

**\*New: Bus shall come equipped with two lap/shoulder restraint seats. Flexible design feature, thus allowing three-two seating on the same 39-inch seat, depending on student size. Locate the seats at position 1R and 3R from front of bus.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (50) Public Address System:**

Bus shall be equipped with a public address system.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (51) Radio System:**

We will install our own 2-way radio.

Bus shall be equipped with an AM/FM Stereo Radio System with PA system, including speakers throughout bus interior.

**\*New: Two-way radio coaxial cable – factory installed and routed in bus body.**

Meets above specifications:             yes                       no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (52) Retroreflective Material:**

Retroreflective material shall meet or exceed 44.3 (52) of the Iowa Code Requirements.

Meets above specifications:             yes                       no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (54) Rub Rails:**

Rub rails shall meet or exceed 44.3 (54) of the Iowa Code Requirements.

**\*New: Rub rails shall be sealed on top edge for better corrosion protection.**

Meets above specifications:             yes                       no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (55) and (57) Seats and Crash Barrier:**

Seats and crash barriers shall meet or exceed 44.3 (55)and(57) of the Iowa Code Requirements.

Seat cover material shall be a minimum of 42-ounce material.

Passenger seats shall be heavy duty construction, brown or tan in color, seat spacing shall be approximately 28–29 inches. Bidder shall provide seat material specifications and diagrams of seat spacing and seat construction with bid. Passenger seats shall be 28” New York Style High Back construction.

**\*New – Bus seating and barriers shall be equipped with fire block material.**

Bus seat backs shall be rated for vest cam wrap style belts.

All seats shall meet applicable FMVSS requirements and seat frames shall be capable for installation of Type 2 belts and/or Integrated Child Safety (ICS) restraint systems. Conversion of seats shall not require the removal of the seat from the bus floor and will re-use the base frame of the standard seat.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (56) Driver’s Seat:**

Driver’s Seat shall meet or exceed the 44.3 (56) of the Iowa Code Requirements.

Driver’s seat shall be an “air” spring suspension operated, high back seat such as manufacturer “National” brand, model 2000 is preferred, with lumbar adjustment, with seat positioning, and range of adjustments to accommodate comfortable actuation of the foot control pedals by 95 percent of male/female adult population.

Driver's seat shall be comfortable foam padding.

Driver's seat shall have armrests. Seat bottom cushion shall have multiple adjustment positions to allow changes in seat bottom angle.

Driver's seat shall be **cloth** upholstery.

Driver's seat belt shall incorporate high visibility material.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (58) Seating Passenger Restraints:**

No seat belts are required, seat backs shall be rated for vest cam wrap style belts.

**\*Note: Also See 44.3 (49) for special lap/shoulder bus passenger seating.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (59) Shock Absorbers:**

Chassis shall be equipped with double action shock absorbers compatible with manufacturers rated axle capacity at each wheel location.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (60) Steps:**

Bus steps shall meet or exceed 44.3 (60) of the Iowa Code Requirements.

Bus step well shall have 3 steps. (Four (4) steps if you count the top floor level as a step.)

**\*New: A right side step well hand rail shall be installed in step well for student access.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (61) Step Treads:**

Step treads shall meet or exceed 44.3 (61) of the Iowa Code Requirements.

Step treads shall be Koroseal Pebble Top with Pebble White Nosing.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (62) Stirrup Steps:**

Stirrup steps are required as in 44.3 (62) of the Iowa Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_



**44.3 (63) Stop Signal Arm:**

Stop arm shall meet or exceed 44.3 (63) of the Iowa Code Requirements.

Stop arm shall be electric operated **not** vacuum or air.

Stop arm must be equipped with LED, strobe bulbs.

Specialty MFG model 7980E is preferred.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (64) Storage Compartment:**

Bus storage compartments shall meet or exceed 44.3 (64) of Iowa code requirements.

**\*New: A storage compartment shall be located on left side dome panel area above driver in addition to the front bulkhead storage compartment. Both storage compartments should be non-lockable.**

There shall be an overhead enclosed storage compartment above the windshield to house the first aid kit, fire extinguisher, body fluids kit, with approved glass window (if equipped) in door opening and labeled as safety equipment.

Safety equipment compartment shall be plainly labeled to indicate location of equipment.

An enclosed space shall be provided in the driver’s compartment for storing manuals and bus driver records.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (65) Suspension:**

Shall meet or exceed 44.3 (65) of the Iowa Code Requirements.

Front leaf type springs shall have a stationary eye at one end and shall be protected by a wrapped leaf in addition to the main leaf. Parabolic or taper leaf springs are acceptable. Front springs capacity 10,000 LB minimum.

Rear suspension to be air ride 19,000 LB minimum, 21,000 LB preferred.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (66) Steering System:**

Shall meet or exceed 44.3 (66) of the Iowa Code Requirements.

Power Steering is required.

The steering system shall be designed to provide a means for lubrication of all wear points.

Sheppard M-100 power or equivalent.

Steering column – tilting required.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (67) Sun Shield:**

Shall meet or exceed section 44.3 (67) of the Iowa Code Requirements.

Sun shield shall be an interior adjustable transparent sun shield not less than 6” by 30” with a finished edge, and shall be installed in a position convenient for use by driver.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (68) Tailpipe:**

See Sub Rule 44.3 (23)

Exhaust tailpipe shall exit at rear of bus, on right side.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (69) Throttle:**

A driver operated mechanical or electronic variable speed hand throttle shall be provided.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3A (69A) Engine Power and Grade ability:**

265 horsepower, PSI 8.8L Gas, 548 LB-FT Net Torque at 1800 RPM, minimum. The engine shall have a key operated electric engine shut down. Engine shall meet EPA Emissions regulations, for model year of engine.

**Cab Sound Insulation:** Engine compartment shall have cab sound insulation including dash insulator and engine cover insulator.

**Engine Cooling:** The engine shall have a Viscous operated, **Borg-Warner SA-75 engine fan**. Engine shall have a heavy duty radiator for engine and transmission cooling.

**Engine Coolant:** Engine shall have extended life coolant.

**Engine Block Heater:** The block heater should be a 120-volt AC/750-watt element. The block heater cord socket shall be located in front bumper.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (70) Tires - Rims:**

Shall meet or exceed 44.3 (70) of the Iowa Code Requirements.

Rims – 8.25 x 22.5 Disc Steel Hub Piloted 10 Stud.

Front tires – 11R 22.5 Hankook AH12 Load Range G, 14 ply tubeless.

Rear tires – 11R 22.5 Hankook Z35A Load Range G, 14 ply tubeless.

Refer to 44.3 (4) Axles for more wheel information.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (71) Front Tow Hooks:**

Also See Sub Rule 44.3 (10)

**44.3 (72) Rear Tow Hooks:**

Rear tow hooks shall meet or exceed 44.3 (72) of the Iowa Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (74) Transmission:**

**Shall meet or exceed section 44.3 (74) of the Iowa Code Requirements.**

Allison 2500 PTS Series, 5 speed transmission with shift lever type selector.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (75) Trash Container and Holding Device:**

Trash container shall meet or exceed 44.3 (75) of the Iowa Code Requirements.

Dubuque Schools will install the trash container, please leave trash container loose in bus.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

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**44.3 (76) Turning radius:**

Chassis shall have a curb to curb measurement of not more than 42 ½ feet in both directions, a tire path radius of 34 feet is preferred.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

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**44.3 (77) Undercoating:**

Undercoating shall meet or exceed 44.3 (77) of the Iowa Code Requirements.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

**44.3 (80) Ventilation:**

Ventilation requirements shall meet or exceed 44.3 (80) of the Iowa Code Requirements.

See also sub rule 44.3 (18)

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (81) Wheel Housings:**

The wheel housings shall meet or exceed 44.3 (81) of the Iowa Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (82) Windshield and Windows:**

Windshield and windows shall meet or exceed 44.3 (82) of the Iowa Code Requirements.

Windshields shall be tinted glass of AS-I Rating, with upper shaded band.

An insulated double glass (thermopane) window shall be located behind service entrance on right side, at first right hand passenger seat and at first left hand passenger seat behind driver.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (83) Windshield Washers:**

Windshield washers shall meet or exceed 44.3 (83) of the Iowa Code Requirements.

Windshield washer shall be electric design.

Windshield washer tank should have a capacity of approximately six (6) quarts.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (84) Windshield Wipers:**

Windshield wipers shall meet or exceed 44.3 (84) of the Iowa Code Requirements.

Windshield wipers shall be a positive action motor, 2 speed, **with intermittent electric** wiper motor design.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (85) Wiring:**

Wiring shall meet or exceed 44.3 (85) of the Iowa Code Requirement.

Wiring circuits shall be protected by manual reset circuit breakers SAE Type III with trip indicators, 10 amp and larger at main panel.



All circuits shall be wired through ignition switch or ignition switch controlled relays, including the overhead warning light system.

All bus wiring shall be color coded and numbered for ease of circuit identification.

**A master bus chassis/body wiring diagram shall be supplied with each new bus,** the master bus-wiring diagram shall also include all the wiring schematics for the options that the bus was built with.

The bus body wiring shall be of the 12-volt system.

All the bus body wiring shall have an amperage capacity exceeding the design load by at least 25 percent.

All wiring to be protected by grommets when passed through a metal or sharp opening.

Bus body shall be compatible with chassis multiplex wiring.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

\_\_\_\_\_

**Child Reminder System:**

Bus shall come equipped with Child Reminder System, for drivers to walk to back of bus and deactivate the system before getting off the bus, insuring “No Child Left Behind”.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

\_\_\_\_\_

**Service Manuals:**

Chassis/Body manufacturer shall provide an **owner/operators manual, chassis/body service manual, complete parts manual, master wiring schematic and troubleshooting manual,** with each group bus purchase order.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**Other:**

**Warranty:**

Chassis/Body dealer shall provide complete warranty information schedule with bid proposal.

Chassis/Body dealer shall provide any information regarding extended warranty purchasing.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**Delivery Date:**

Buses are to be delivered to Dubuque Community School District between June 11, 2018 and June 15, 2018.

State your delivery date, if different from above.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**Programmable Parameters:**

- A. Buses shall be delivered with the cruise control feature turned off.
- B. Buses shall be delivered with (8) eight way warning system maximum initiation speed set up from 45 to 65 miles per hour.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**Optional: Extended Warranty:**

Specify manufacturer's extended engine and transmission/driveline warranty package.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**Other:**

Chassis/Body dealer is responsible for any chassis/Body repairs before the bus is put into service by the school district.

Chassis dealer is to report any cost savings, such as early pay discounts.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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2017/2018 DUBUQUE COMMUNITY SCHOOL DISTRICT  
**BUS BODY/CHASSIS SPECIFICATIONS**

**2019 Model**

**CONVENTIONAL 65 PASSENGER CAPACITY BODY/CHASSIS**

Wheelbase 254” or Whichever Body Company Specifies

Chassis Rating: Gross Vehicle Weight Rating:

29,000 lbs. Minimum

**WITH AIR CONDITIONING**

**WITH DIESEL ENGINE**

**NOTE:**

Sales person is responsible to inspect this bid spec for changes that are made annually.

\*All bids on chassis equipment shall meet or exceed the specifications listed below and in addition those stated in publication “Minimum Standards for Construction of School Transportation Equipment, IOWA TR-B-3R (Revised) July 15<sup>th</sup>, 2014”, as well as any and all Federal Motor Vehicle Safety Standards.

**281-44.3 (285) School Bus Chassis 65 Passenger/65 Passenger Body Spec.  
Combined**

**254-inch wheelbase**

**44.3 (1) Air Cleaner:**

Shall meet or exceed 44.3 (1) of the Iowa Code Requirements.

Dry element type, properly installed to meet engine manufacturers specifications, with air restriction gauge mounted on air filter housing. Dual filter element is preferred.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (2) Aisle:**

Aisle shall meet or exceed 44.3 (2) of the Iowa Code Legal Requirements.  
Color of aisle shall be Tan.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (3) Alternator:**

Shall meet or exceed 44.3 (3) of the Iowa Code Requirements.

Alternator to be rated for air conditioning purpose. 12-volt, **320-amp capacity**, belt drive, Leece-Neville pad mounted, brush type alternator, with belt drive capable of handling the rated capacity of the alternator, with a 90-100 Amp capacity at engine idle. Alternator shall have low idle turn on speed or ignition excited alternator turn on.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (4) Axles:**

Front axle – 10,000 LB minimum, with 80W-90 **non-synthetic** oil lube front wheel bearing hubs.

Rear axle – 19,800 LB capacity, with **non-synthetic** oil, rear axle ratio should be determined by limiting the road speed to approximately 75 mph at the maximum engine RPM.

**Example:** 2600 Maximum Governed Engine RPM  
          ÷ .74 Transmission Ratio in Highest Gear  
          3513.51 Corrected Factor  
          ÷ 5.57 Rear Axle Ratio Chosen

$$\begin{aligned} &630.79 \text{ Corrected Factor} \\ &\quad \times .1193 \text{ Corrected Tire Factor } 60/503 \text{ Tire RPM, } 11 \text{ R22.5} \\ &= 75.25 \text{ mph Maximum Road Speed} \end{aligned}$$

Please state your maximum road speed and gear ratio chosen.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (5) Back-Up Warning Alarm:**

Back-up alarm shall be installed behind rear axle and comply with SAE J994B standards, 112dBA.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (6) Battery Compartment:**

Battery compartment shall meet or exceed section 44.3 (6) of the Iowa Code Legal Requirements.

- A. Minimum battery compartment dimensions of 25 inches wide, 14 inches deep and 10 inches high.
- B. A slightly larger battery compartment is preferred.
- C. The battery box shall accommodate 3 batteries.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (7) Battery System:**

Three 12-volt batteries, with a minimum of 650 CCA capacity, at 0 degrees F., with a minimum of 180-minute reserve capacity at 25 Amp drain, (**per battery**). Battery cables shall be # 2/0 or larger copper with sufficient length for slide out battery tray. Battery connections shall be top mounted stud type.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (8) Body Size:**

31 ft. – 2” body length  
11 rows of seats both sides  
65 passenger body size – of sufficient length to provide seat spacing of 28–29 inches – **State your body length and seat spacing below**  
254-inch wheelbase

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (9) Brakes:**

Shall meet or exceed 44.3 (9) of the Iowa Code Requirements.

Dual Air Brake system with two air tanks and air dryer system. Air dryer to be Bendix AD9. Air compressor to be gear driven, minimum 13.2 cubic feet per minute. Automatic tank drain valves required, **ABS brakes** (4 channels) required. Bendix ABS **shall have traction control option**: Air compressor shall have **Bendix St-4** safety valve for compressor protection. **IH Part # 3513051C1**. DCSD will do the install of the safety valve.

Front Brakes – Air S-CAM 15.0” x 4.0” with 20 Sq. In. Long Stroke brake chambers.

Rear Brakes – Air S-CAM 16.5” x 7.0” with 30 Sq. In. Spring actuated parking brake chambers. Model TR3030 **Long Stroke** Brake Chamber.

Automatic slack adjusters are to be installed on all wheel positions. Rockwell automatic slack adjusters are preferred.

Brake lining to be meritor Q plus and of composition to reduce brake squealing as much as possible. Brake lining shall be Meritor Lining MA212.

**\*NEW: An air parking brake warning indicator with buzzer shall be installed to alert the driver in the event that driver failed to set parking brake after removing driver seatbelt.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (10) and (71) Front Bumper:**

Shall meet or exceed 44.3 (10) and (71) of the Iowa Code Requirements.

Front bumper shall be a minimum of 8” high and constructed of pressed steel channel or equivalent material of sufficient structural and mounting strength to ensure that the front of the vehicle may be lifted by an air bumper-type jack without deformation of the bumper. The bumper shall extend beyond the forward most part of the body, grille, hood and fenders and extend to outer edge of fenders at the bumpers top line.

Tow Hooks:

Two front tow hooks are required by the chassis manufacturer, attached to the chassis frame.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_



**44.3 (11) Rear Bumper:**

The rear bumper shall meet or exceed section 44.3 (11) of the Iowa Legal Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (12) Certification:**

The chassis/body manufacturer shall, upon request, certify to the Department of Education that the manufacturer's product(s) meets Iowa Standards on items not covered by FMVSS certification requirements of 49 CFR PART567.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (13) Color:**

Bus body shall be National School Bus Yellow. Shall meet or exceed 44.3 (13) of the Iowa Code Requirements.

Chassis and front bumper shall be black; body cowl, hood, and fenders shall be national school bus yellow. Base Coat/Clear Coat is preferred.

Wheel hubs and rims shall be black.

**Hood** shall be of two tone paint design, top of hood to be non-reflective yellow paint for reduction of sun glare.

**School Bus roof shall be white in color to promote cooler interior temperatures.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (14) Construction:**

Shall meet or exceed 44.3 (14) of the Iowa Code Requirements.

The school bus body shall be constructed of materials certified to be durable under normal operating conditions and shall meet all applicable federal motor vehicle safety standards at the date of manufacture as certified by the bus body manufacturer.

Construction shall be reasonably dust proof and watertight.

The inside height of the body shall be at least 78 inches.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (15) Crossing Control Arms:**

Shall meet or exceed 44.3 (15) of the Iowa Code Requirements.

Crossing arm shall be electric operated, not air operated.

Crossing arm shall have a magnetic mounting base, mounted on bumper to ease vibration when stowed.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (16) Day Time Running Lights (DRL):**

Daytime running lights are required.  
See Sub Rule 44.3 (33)

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (17) Defrosters:**

Shall meet or exceed 44.3 (17) of the Iowa Code Requirements.

The defrosting system shall conform to SAE Standards J381.

Auxiliary Fans (2) are required.

Auxiliary fans are to be placed so they will clear side windows as well as windshields.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (18) Doors and Exits:**

Shall meet or exceed 44.3 (18) of the Iowa Code Requirements.

Entrance Service door – shall be outward opening type **electric** operated with heavy-duty door control. The power-operated door must provide for manual operation in case of power failure. Entrance door shall have one exterior handle on forward door leaf for ease of opening from exterior. There shall be two (2) entrance door electrical switches for driver’s convenience, one mounted on steering wheel and the other on left driver’s switch panel.

Step well shall have 3 steps.

Emergency door – shall comply with the requirement of FMVSS217.

Emergency Exits – shall have 2 window exits per side and 2 roof hatches.

Interior emergency exits shall be labeled “Do Not Block” per Iowa law.

Roof hatches shall be Transpec roof hatch model 1975-028-121-03 Hatch.

Rear emergency door and each emergency exit shall be equipped with an audible warning device.

Roof hatches shall also have an audible warning device.

Emergency door shall have a red light above exit.

Meets above specifications:             yes             no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (19) Driveshaft:**

The driveshaft shall be protected by a metal guard around the circumference of the driveshaft to reduce the possibility of its whipping through the floor.

Meets above specifications:             yes             no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (20) Driver's Compartment:**

Driver's compartment shall meet or exceed 44.3 (20) of the Iowa Code Requirements.

A driver's document pouch or compartment shall be provided, the pouch is to measure at least 17 inches x 12 inches x 4 inches and be mounted to the barrier behind the driver.

A driver's cup holder mounted for driver's convenience is preferred if available.

A manual noise suppression switch shall be required per Iowa Code. See Also Sub Rule 44.3 (56)

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (21) Electrical System**

See Sub Rule 44.3 (85)

**44.3 (22) Emergency Equipment:**

Emergency equipment must meet all areas of 44.3 (22) of Iowa Administrative Code Legal Requirements and Regulations.

Seat belt webbing cutter of the hand grip style shall be required as part of the emergency equipment.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (23) and (68) Exhaust:**

Shall meet or exceed 44.3 (23) and (68) of the Iowa Code Requirements.

Single, horizontal muffler and long tail pipe, stainless steel, frame mounted on **right side**. Exhaust must be of sufficient length to reach vertical line of rear of bus body.

Exhaust system shall be compliant with new emissions standards for engine model year.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (24) Fenders, Front and Hood:**

Shall meet or exceed 44.3 (24) of the Iowa Code Requirements.

Hood must be forward tilting, fiberglass construction. The hood shall not require more than 20 pounds of force to open and shall include design features to secure hood in an open position.

Hood shall be of two tone paint design, top of hood to be non-reflective yellow paint for reduction of sun glare.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (25) Floor Insulation and Covering:**

Flooring shall meet 44.3 (25) of Iowa Administrative Code Requirements.

The fuel tank sending unit shall be provided with an **access opening** and cover, accessible from within the body.

Floor covering shall be **Tan** in color.

Floor underlayment shall be a minimum of 5/8” exterior grade plywood.

**\*New – Bus shall come equipped with the new one-piece style of floor covering to eliminate flooring gaps and leaks into sub floor.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (26) Frame:**

Shall meet or exceed 44.3 (26) of the Iowa Code Requirements.

Frame rails shall have design and strength characteristics corresponding to standard practice for trucks of the same general load characteristics which are used for highway service. **Frame reinforcement shall be required where needed.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (27) Fuel System:**

Shall meet or exceed 44.3 (27) of the Iowa Code Requirements.

Diesel-powered system – one engine mounted fuel filter with a water/fuel separator, supplied and installed by engine manufacturer.

Fuel Tank – Minimum of 65 U.S. Gallons tank capacity. The actual draw capacity shall be 83% or more of the tank capacity. Fuel tank must have protective cage meeting FMVSS at date of manufacturer in accordance with SBMTC School Bus Design objectives August 1996 edition.

Fuel tank to be mounted on inside frame rail behind rear axle area.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (28) Alternate Fuel. Does not apply to this bus.**

**44.3 (29) Fuel Fill Opening and Cover:**

Must meet Iowa Code 44.3 (29) of Iowa Administrative Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (30) Governor:**

An engine governor is required.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (31) Heating and Air Conditioning:**

Shall meet or exceed Iowa Code 44.3 (31) Of Iowa Administration Code Requirements.

Heaters:

Interior body heating system shall include

- A. One left front heater with defroster minimum of 90,000 BTU, with H/D fan motors.
- B. One right front heater with defroster minimum of 50,000 BTU, with H/D fan motor
- C. One left side rear, under seat, heater mounted rear of wheel well, minimum of 80,000 BTU rating with heavy duty fan motors.
- D. All heater cores shall have changeable filter to protect cores from dirt.
- E. Body dealers shall be responsible for engine coolant protection to minus 40 degrees F and match chassis manufacturers engine coolant.

Heating system plumbing should be of **parallel** plumbing design, but series plumbing design is acceptable.

**\*New – Air conditioning: Bus shall come equipped with air conditioned interior.**

- A. Condenser: Roof mounted condenser unit.
- B. Evaporator: Front and rear flush bulkhead mount evaporator unit.
- C. Compressor: 120,000 BTU capacity system.
- D. Bus Roof: Shall be white roof for cooler interior temperatures. See body Spec 44.3 (13).
- E. Alternator: 320-amp 12-volt alternator.

Meets above specifications:            ( ) yes                            ( ) no

Description: \_\_\_\_\_

**44.3 (32) Heating System:**

Shall meet or exceed 44.3 (32) of the Iowa Code Requirements.  
**Coolant protection shall be minus 40 degrees F from factory.**

Meets above specifications:             yes             no

Description: \_\_\_\_\_

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**44.3 (33) Headlamps:**

Shall meet or exceed 44.3 (33) of the Iowa Code Requirements.

Halogen bulbs required.

Day time running lights system shall be provided.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

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**44.3 (34) Hinges:**

Must meet Iowa Code 44.3 (34) requirements.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

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**44.3 (35) Horn:**

Shall meet or exceed 44.3 (35) of the Iowa Code Requirements.

Dual electric horns meeting SAE Standard J377.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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### **44.3 (36) Identification:**

Bus identification must meet section 44.3 (36) of the Iowa Code Requirements.

Bus must have “Dubuque Community School District” vinyl decal on each side of bus in 6-inch letters.

Bus must have its designated numbers vinyl decal in 6-inch black letters on the following areas:

- A. Next to entrance door
- B. Above entrance door-behind bus manufacturer decal.
- C. On rear, below tail light on right side of bus
- D. Above driver’s window and visible from the left side-behind bus manufacturer decal.
- E. On left side of bus below stop arm area
- F. The front bumper is to have 6 inch **yellow reflective** numbers on the left front area of the bumper
- G. The words “Diesel Fuel” to be displayed on or near fuel access cover.

**SPECIAL NOTE:** The bus company will install the bus identification and fleet numbers. **Bus fleet number is to be: 982-983.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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### **44.3 (37) Instruments:**

Shall meet or exceed 44.3 (37) of the Iowa Code Requirements.

Instrument panel must have the following instrumentation.

- A. Speedometer
- B. Odometer – 7 digits including tenths of miles
- C. Voltmeter with alternator malfunction indicator light (if available)
- D. Oil pressure gauge – with low oil warning light and alarm
- E. Water temperature gauge with high temp alarm and warning light
- F. Fuel gauge
- G. High beam indicator
- H. Dual air pressure gauges with low air buzzer
- I. Turn signal indicator
- J. Glow plug indicator where appropriate
- K. Tachometer
- L. Rheostatically controlled dash panel lights
- M. Hour meter required
- N. DEF Gauge
- O. Transmission temperature gauge
- P. Headlight warning buzzer with key off

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (38) Insulation:**

Shall meet 44.3 (38) of the Iowa Code Requirements.

Thermal insulation in the ceiling and the walls shall be fire resistant, UL-approved and a minimum 1 ½” thick with a minimum R-value of 5.5. Roof bows shall be insulated in accordance with 44.3 (38) “a”.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (39) Interior:**

Interior must meet 44.3 (39) of the Iowa Code Requirements.

Sound insulation package to reduce noise in ceiling throughout entire bus interior is required.

**Child Reminder System:** Bus shall come equipped with Child Reminder System, for drivers to walk to back of bus and deactivate the system before getting off the bus, insuring “No Child Is Left Behind”.

**Inside Height: Inside Body Height Shall be 78 Inches.**

\*New – bus ceiling interior shall have rivets instead of sheet metal screws.

Meets above specifications:            ( ) yes                    ( ) no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (40) Lamps and Signals:**

All lamps and signals must meet 44.3 (40) of Iowa Code Requirements.

Bus body shall have (2) 7-inch amber turn signal lamps mounted on body front cowl below windshield on each front body corner. Hood fender mounted turn signal lamps are **not** allowed.

Black visors over 8 light warning system lens is **not** required.

All protruding marker/clearance lights to be mounted with armor guards.

Strobe light – Bus shall be equipped with low profile, all weather exterior, heavy duty strobe, double flash, **mounted not less than one foot or more than 18 inches from rear center of bus is required.**

Specialty Strobe Model 205 Mini is preferred or equivalent.

\*New: All exterior lights shall be L.E.D.

The strobe light must be controlled by a separate switch with an indicator light, when lit will indicate that the strobe is on.

The strobe must be approved by Iowa Department of Transportation.

**K. Warning Signal Lamps:** The buses shall come with “Supplemental Warning Lights” supplied loose with bus. Weldon Part Number W3200-000-11 Kit. The DCSD will install the system.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (41) Measurements:**

Measurements must meet or exceed 44.3 (41) of Iowa Code Requirements.

Bus overall height, length, and width shall not exceed the maximum allowed by the Iowa D.O.T.

Bus interior height shall be 78 inches.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (42) Metal Treatment:**

Metal treatment must meet or exceed 44.3 (42) of the Iowa Code Requirements.

Under body of bus body must be completely sealed and undercoated for further rust prevention.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (43) Mirrors:**

Mirrors must meet or exceed 44.3 (43) of the Iowa Code Requirements.

**Rear view mirrors – Exterior:**

Rosco “Open View” exterior rear view mirrors, to be mounted on body so as to not obstruct vision of seated driver to the right or left. The mirrors are to be “heated”.

Heated mirrors should be on a “Heated Mirror Timer” of about 12 to 30 minutes.

**\*New: Remote control rear view mirrors both left and right shall be required.**

**Rear view mirrors – Interior:**

Must be 6” x 30” Rosco mirror minimum.

**Crossover mirrors:**

Dealers to use Mirror Lite High Def Busboy Crossover “heated” hood mirrors.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

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**44.3 (44) Mounting:**

Mounting of bus body shall meet or exceed 44.3 (44) of Iowa Code Requirements.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

**44.3 (45) Mud Flaps:**

Mud flaps shall meet or exceed 44.3 (45) of the Iowa Code Requirements. Mud flaps shall be rubber type, not vinyl.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (46) Oil Filter:**

Engine mounted oil filter must be replaceable element type (spin on preferred).

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (47) Openings:**

All openings in the floor board or fire wall between chassis and passenger compartment must be sealed.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (48) GVWR: Passenger Load**

29,000 LB Minimum

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (49) and (58) Passenger Securement Seating System:**

Passenger securement shall meet or exceed 44.3 (49 )and (58) of the Iowa Code Requirements.

**\*New: Bus shall come equipped with two lap/shoulder restraint seats. Flexible design feature, thus allowing three-two seating on the same 39-inch seat, depending on student size. Locate the seats at position 1R and 3R from front of bus.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (50) Public Address System:**

Bus shall be equipped with a public address system.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (51) Radio System:**

We will install our own 2-way radio.

Bus shall be equipped with an AM/FM Stereo Radio System with PA system, including speakers throughout bus interior.

**\*New: Two-way radio coaxial cable – factory installed and routed in bus body.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (52) Retroreflective Material:**

Retroreflective material shall meet or exceed 44.3 (52) of the Iowa Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (54) Rub Rails:**

Rub rails shall meet or exceed 44.3 (54) of the Iowa Code Requirements.

**\*New: Rub rails shall be sealed on top edge for better corrosion protection.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (55) and (57) Seats and Crash Barrier:**

Seats and crash barriers shall meet or exceed 44.3 (55)and(57) of the Iowa Code Requirements.

Seat cover material shall be a minimum of 42-ounce material.

Passenger seats shall be heavy duty construction, brown or tan in color, seat spacing shall be approximately 28–29 inches. Bidder shall provide seat material specifications and diagrams of seat spacing and seat construction with bid. Passenger seats shall be 28” New York Style High Back construction.

**\*New – Bus seating and barriers shall be equipped with fire block material.**

Bus seat backs shall be rated for vest cam wrap style belts.

All seats shall meet applicable FMVSS requirements and seat frames shall be capable for installation of Type 2 belts and/or Integrated Child Safety (ICS) restraint systems. Conversion of seats shall not require the removal of the seat from the bus floor and will re-use the base frame of the standard seat.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (56) Driver’s Seat:**

Driver’s Seat shall meet or exceed the 44.3 (56) of the Iowa Code Requirements.

Driver’s seat shall be an “air” spring suspension operated, high back seat such as manufacturer “National” brand, model 2000 is preferred, with lumbar adjustment,

with seat positioning, and range of adjustments to accommodate comfortable actuation of the foot control pedals by 95 percent of male/female adult population.

Driver's seat shall be comfortable foam padding.

Driver's seat shall have armrests. Seat bottom cushion shall have multiple adjustment positions to allow changes in seat bottom angle.

Driver's seat shall be **cloth** upholstery.

Driver's seat belt shall incorporate high visibility material.

Meets above specifications:             yes             no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (58) Seating Passenger Restraints:**

No seat belts are required, seat backs shall be rated for vest cam wrap style belts.

**\*Note: Also See 44.3 (49) for special lap/shoulder bus passenger seating.**

Meets above specifications:             yes             no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (59) Shock Absorbers:**

Chassis shall be equipped with double action shock absorbers compatible with manufacturers rated axle capacity at each wheel location.

Meets above specifications:             yes             no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (60) Steps:**

Bus steps shall meet or exceed 44.3 (60) of the Iowa Code Requirements.

Bus step well shall have 3 steps. (Four (4) steps if you count the top floor level as a step.)

**\*New: A right side step well hand rail shall be installed in step well for student access.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (61) Step Treads:**

Step treads shall meet or exceed 44.3 (61) of the Iowa Code Requirements.

Step treads shall be Koroseal Pebble Top with Pebble White Nosing.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (62) Stirrup Steps:**

Stirrup steps are required as in 44.3 (62) of the Iowa Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (63) Stop Signal Arm:**

Stop arm shall meet or exceed 44.3 (63) of the Iowa Code Requirements.

Stop arm shall be electric operated **not** vacuum or air.  
Stop arm must be equipped with LED, strobe bulbs.  
Specialty MFG model 7980E is preferred.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (64) Storage Compartment:**

Bus storage compartments shall meet or exceed 44.3 (64) of Iowa code requirements.

**\*New: A storage compartment shall be located on left side dome panel area above driver. Storage compartments should be non-lockable.**

Bus shall have a front bulkhead air conditioner evaporator unit in place of a storage compartment.

Emergency equipment will be located in driver’s area where it can be safely mounted to floor and bulkhead areas.

**44.3 (65) Suspension:**

Shall meet or exceed 44.3 (65) of the Iowa Code Requirements.

Front leaf type springs shall have a stationary eye at one end and shall be protected by a wrapped leaf in addition to the main leaf. Parabolic or taper leaf springs are acceptable. Front springs capacity 10,000 LB minimum.

Rear suspension to be air ride 19,000 LB minimum, 21,000 LB preferred.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (66) Steering System:**

Shall meet or exceed 44.3 (66) of the Iowa Code Requirements.

Power Steering is required.

The steering system shall be designed to provide a means for lubrication of all wear points.

Sheppard M-100 power or equivalent.

Steering column – tilting required.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (67) Sun Shield:**

Shall meet or exceed section 44.3 (67) of the Iowa Code Requirements.

Sun shield shall be an interior adjustable transparent sun shield not less than 6” by 30” with a finished edge, and shall be installed in a position convenient for use by driver.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (68) Tailpipe:**

See Sub Rule 44.3 (23)

Exhaust tailpipe shall exit at rear of bus, on right side.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (69) Throttle:**

A driver operated mechanical or electronic variable speed hand throttle shall be provided.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3A (69A) Engine Power and Grade ability:**

250 horsepower Cummins Electronic Diesel, 660 LB-FT Net Torque at 1600 RPM, minimum. The engine shall have a key operated electric engine shut down. The engine shall have an engine mounted primary fuel filter. Engine shall meet EPA Emissions regulations, for model year of engine.

**Cab Sound Insulation:** Engine compartment shall have cab sound insulation including dash insulator and engine cover insulator.

**Engine Fuel Heater:** Engine shall have a fuel water separator with a thermostatic controlled heater, and water in fuel indicator combination.

**Engine Starter Motor:** Engine shall have a Delco Remy 38 MT starter motor with gear reduction drive.



**Engine Cooling:** The engine shall have an electric operated, **Warner Electric FC-550 electronically activated and controlled engine fan.** Engine shall have a heavy duty radiator for engine and transmission cooling.

**Engine Coolant:** Engine shall have extended life coolant.

**Engine Block Heater:** The block heater should be a 120-volt AC/750-watt element. The block heater cord socket shall be located in front bumper.

**Engine Intake Manifold Heater:** Engine shall have intake manifold heater for cold weather starting, controlled by the engine ECM.

Meets above specifications:             yes             no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (70) Tires - Rims:**

Shall meet or exceed 44.3 (70) of the Iowa Code Requirements.

Rims – 8.25 x 22.5 Disc Steel Hub Piloted 10 Stud.

Front tires – 11R 22.5 Hankook AH12 Load Range G, 14 ply tubeless.

Rear tires – 11R 22.5 Hankook Z35A Load Range G, 14 ply tubeless.

Refer to 44.3 (4) Axles for more wheel information.

Meets above specifications:             yes             no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (71) Front Tow Hooks:**

Also See Sub Rule 44.3 (10)

**44.3 (72) Rear Tow Hooks:**

Rear tow hooks shall meet or exceed 44.3 (72) of the Iowa Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (74) Transmission:**

**Shall meet or exceed section 44.3 (74) of the Iowa Code Requirements.**

Allison 2500 PTS Series, 5 speed transmission with shift lever type selector.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (75) Trash Container and Holding Device:**

Trash container shall meet or exceed 44.3 (75) of the Iowa Code Requirements.

Dubuque Schools will install the trash container, please leave trash container loose in bus.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (76) Turning radius:**

Chassis shall have a curb to curb measurement of not more than 42 ½ feet in both directions, a tire path radius of 34 feet is preferred.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (77) Undercoating:**

Undercoating shall meet or exceed 44.3 (77) of the Iowa Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (80) Ventilation:**

Ventilation requirements shall meet or exceed 44.3 (80) of the Iowa Code Requirements.

See also sub rule 44.3 (18)

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (81) Wheel Housings:**

The wheel housings shall meet or exceed 44.3 (81) of the Iowa Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (82) Windshield and Windows:**

Windshield and windows shall meet or exceed 44.3 (82) of the Iowa Code Requirements.

Windshields shall be tinted glass of AS-I Rating, with upper shaded band.

An insulated double glass (thermopane) window shall be located behind service entrance on right side, at first right hand passenger seat and at first left hand passenger seat behind driver.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (83) Windshield Washers:**

Windshield washers shall meet or exceed 44.3 (83) of the Iowa Code Requirements.

Windshield washer shall be electric design.

Windshield washer tank should have a capacity of approximately six (6) quarts.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (84) Windshield Wipers:**

Windshield wipers shall meet or exceed 44.3 (84) of the Iowa Code Requirements.

Windshield wipers shall be a positive action motor, 2 speed, **with intermittent electric wiper motor design.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (85) Wiring:**

Wiring shall meet or exceed 44.3 (85) of the Iowa Code Requirement.

Wiring circuits shall be protected by manual reset circuit breakers SAE Type III with trip indicators, 10 amp and larger at main panel.

All circuits shall be wired through ignition switch or ignition switch controlled relays, including the overhead warning light system.

All bus wiring shall be color coded and numbered for ease of circuit identification.

**A master bus chassis/body wiring diagram shall be supplied with each new bus,** the master bus-wiring diagram shall also include all the wiring schematics for the options that the bus was built with.

The bus body wiring shall be of the 12-volt system.

All the bus body wiring shall have an amperage capacity exceeding the design load by at least 25 percent.

All wiring to be protected by grommets when passed through a metal or sharp opening.

Bus body shall be compatible with chassis multiplex wiring.

**Child Reminder System:**

Bus shall come equipped with Child Reminder System, for drivers to walk to back of bus and deactivate the system before getting off the bus, insuring “No Child Left Behind”.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**Service Manuals:**

Chassis/Body manufacturer shall provide an **owner/operators manual, chassis/body service manual, complete parts manual, master wiring schematic and troubleshooting manual**, with each group bus purchase order.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**Other:**

**Warranty:**

Chassis/Body dealer shall provide complete warranty information schedule with bid proposal.

Chassis/Body dealer shall provide any information regarding extended warranty purchasing.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**Delivery Date:**

Buses are to be delivered to Dubuque Community School District between June 11, 2018 and June 15, 2018.

State your delivery date, if different from above.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**Programmable Parameters:**

- A. Buses shall be delivered with the cruise control feature turned off.
- B. Buses shall be delivered with (8) eight way warning system maximum initiation speed set up from 45 to 65 miles per hour.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**Optional: Extended Warranty:**

Specify manufacturer's extended engine and transmission/driveline warranty package.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**Other:**

Chassis/Body dealer is responsible for any chassis/Body repairs before the bus is put into service by the school district.

Chassis dealer is to report any cost savings, such as early pay discounts.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

\_\_\_\_\_



2017/2018 DUBUQUE COMMUNITY SCHOOL DISTRICT  
**BUS BODY/CHASSIS SPECIFICATIONS**

**2019 Model**

**CONVENTIONAL 65 PASSENGER CAPACITY BODY/CHASSIS**

Wheelbase 254” or Whichever Body Company Specifies

Chassis Rating: Gross Vehicle Weight Rating:

29,000 lbs. Minimum

**WITH AIR CONDITIONING**

**WITH UNDERBODY STORAGE COMPARTMENTS**

**WITH DIESEL ENGINE**

NOTE:

Sales person is responsible to inspect this bid spec for changes that are made annually.

\*All bids on chassis equipment shall meet or exceed the specifications listed below and in addition those stated in publication “Minimum Standards for Construction of School Transportation Equipment, IOWA TR-B-3R (Revised) July 15<sup>th</sup>, 2014”, as well as any and all Federal Motor Vehicle Safety Standards.

**281-44.3 (285) School Bus Chassis 65 Passenger/65 Passenger Body Spec.  
Combined**

**254-inch wheelbase**

**44.3 (1) Air Cleaner:**

Shall meet or exceed 44.3 (1) of the Iowa Code Requirements.

Dry element type, properly installed to meet engine manufacturers specifications, with air restriction gauge mounted on air filter housing. Dual filter element is preferred.

Meets above specifications:            ( ) yes                    ( ) no

Description: \_\_\_\_\_

**44.3 (2) Aisle:**

Aisle shall meet or exceed 44.3 (2) of the Iowa Code Legal Requirements.  
Color of aisle shall be Tan.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (3) Alternator:**

Shall meet or exceed 44.3 (3) of the Iowa Code Requirements.

Alternator to be rated for air conditioning purpose. 12-volt, **320-amp capacity**, belt drive, Leece-Neville pad mounted, brush type alternator, with belt drive capable of handling the rated capacity of the alternator, with a 90-100 Amp capacity at engine idle. Alternator shall have low idle turn on speed or ignition excited alternator turn on.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (4) Axles:**

Front axle – 10,000 LB minimum, with 80W-90 **non-synthetic** oil lube front wheel bearing hubs.

Rear axle – 19,800 LB capacity, with **non-synthetic** oil, rear axle ratio should be determined by limiting the road speed to approximately 75 mph at the maximum engine RPM.

**Example:** 2600 Maximum Governed Engine RPM  
          ÷ .74 Transmission Ratio in Highest Gear  
          3513.51 Corrected Factor  
          ÷ 5.57 Rear Axle Ratio Chosen

$$\begin{aligned} &630.79 \text{ Corrected Factor} \\ &\quad \times .1193 \text{ Corrected Tire Factor } 60/503 \text{ Tire RPM, } 11 \text{ R22.5} \\ &= 75.25 \text{ mph Maximum Road Speed} \end{aligned}$$

Please state your maximum road speed and gear ratio chosen.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (5) Back Up Warning Alarm:**

Backup alarm shall be installed behind rear axle and comply with SAE J994B standards, 112dBA.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (6) Battery Compartment:**

Battery compartment shall meet or exceed section 44.3 (6) of the Iowa Code Legal Requirements.

- A. Minimum battery compartment dimensions of 25 inches wide, 14 inches deep and 10 inches high.
- B. A slightly larger battery compartment is preferred.
- C. The battery box shall accommodate 3 batteries.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (7) Battery System:**

Three 12-volt batteries, with a minimum of 650 CCA capacity, at 0 degrees F., with a minimum of 180-minute reserve capacity at 25 Amp drain, (**per battery**). Battery cables shall be # 2/0 or larger copper with sufficient length for slide out battery tray. Battery connections shall be top mounted stud type.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (8) Body Size:**

31 ft. – 2” body length  
11 rows of seats both sides  
65 passenger body size – of sufficient length to provide seat spacing of 28–29 inches – **State your body length and seat spacing below**  
254-inch wheelbase

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (9) Brakes:**

Shall meet or exceed 44.3 (9) of the Iowa Code Requirements.

Dual Air Brake system with two air tanks and air dryer system. Air dryer to be Bendix AD9. Air compressor to be gear driven, minimum 13.2 cubic feet per minute. Automatic tank drain valves required, **ABS brakes** (4 channels) required. Bendix ABS **shall have traction control option**: Air compressor shall have **Bendix St-4** safety valve for compressor protection. **IH Part # 3513051C1**. DCSD will do the install of the safety valve.

Front Brakes – Air S-CAM 15.0” x 4.0” with 20 Sq. In. Long Stroke brake chambers.

Rear Brakes – Air S-CAM 16.5” x 7.0” with 30 Sq. In. Spring actuated parking brake chambers. Model TR3030 **Long Stroke** Brake Chamber.

Automatic slack adjusters are to be installed on all wheel positions. Rockwell automatic slack adjusters are preferred.

Brake lining to be meritor Q plus and of composition to reduce brake squealing as much as possible. Brake lining shall be Meritor Lining MA212.

**\*NEW: An air parking brake warning indicator with buzzer shall be installed to alert the driver in the event that driver failed to set parking brake after removing driver seatbelt.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (10) and (71) Front Bumper:**

Shall meet or exceed 44.3 (10) and (71) of the Iowa Code Requirements.

Front bumper shall be a minimum of 8” high and constructed of pressed steel channel or equivalent material of sufficient structural and mounting strength to ensure that the front of the vehicle may be lifted by an air bumper-type jack without deformation of the bumper. The bumper shall extend beyond the forward most part of the body, grille, hood and fenders and extend to outer edge of fenders at the bumpers top line.

Tow Hooks:

Two front tow hooks are required by the chassis manufacturer, attached to the chassis frame.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (11) Rear Bumper:**

The rear bumper shall meet or exceed section 44.3 (11) of the Iowa Legal Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (12) Certification:**

The chassis/body manufacturer shall, upon request, certify to the Department of Education that the manufacturer's product(s) meets Iowa Standards on items not covered by FMVSS certification requirements of 49 CFR PART567.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (13) Color:**

Bus body shall be National School Bus Yellow. Shall meet or exceed 44.3 (13) of the Iowa Code Requirements.

Chassis and front bumper shall be black; body cowl, hood, and fenders shall be national school bus yellow. Base Coat/Clear Coat is preferred.

Wheel hubs and rims shall be black.

**Hood** shall be of two tone paint design, top of hood to be non-reflective yellow paint for reduction of sun glare.

**School Bus roof shall be white in color to promote cooler interior temperatures.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (14) Construction:**

Shall meet or exceed 44.3 (14) of the Iowa Code Requirements.

The school bus body shall be constructed of materials certified to be durable under normal operating conditions and shall meet all applicable federal motor vehicle safety standards at the date of manufacture as certified by the bus body manufacturer.

Construction shall be reasonably dust proof and watertight.

The inside height of the body shall be at least 78 inches.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (15) Crossing Control Arms:**

Shall meet or exceed 44.3 (15) of the Iowa Code Requirements.

Crossing arm shall be electric operated, not air operated.

Crossing arm shall have a magnetic mounting base, mounted on bumper to ease vibration when stowed.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (16) Day Time Running Lights (DRL):**

Daytime running lights are required.  
See Sub Rule 44.3 (33)

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (17) Defrosters:**

Shall meet or exceed 44.3 (17) of the Iowa Code Requirements.

The defrosting system shall conform to SAE Standards J381.

Auxiliary Fans (2) are required.

Auxiliary fans are to be placed so they will clear side windows as well as windshields.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_



**44.3 (18) Doors and Exits:**

Shall meet or exceed 44.3 (18) of the Iowa Code Requirements.

Entrance Service door – shall be outward opening type **electric** operated with heavy-duty door control. The power-operated door must provide for manual operation in case of power failure. Entrance door shall have one exterior handle on forward door leaf for ease of opening from exterior. There shall be two (2) entrance door electrical switches for driver’s convenience, one mounted on steering wheel and the other on left driver’s switch panel.

Step well shall have 3 steps.

Emergency door – shall comply with the requirement of FMVSS217.

Emergency Exits – shall have 2 window exits per side and 2 roof hatches.

Interior emergency exits shall be labeled “Do Not Block” per Iowa law.

Roof hatches shall be Transpec roof hatch model 1975-028-121-03 Hatch.

Rear emergency door and each emergency exit shall be equipped with an audible warning device.

Roof hatches shall also have an audible warning device.

Emergency door shall have a red light above exit.

Meets above specifications:             yes             no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (19) Driveshaft:**

The driveshaft shall be protected by a metal guard around the circumference of the driveshaft to reduce the possibility of its whipping through the floor.

Meets above specifications:             yes             no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (20) Driver's Compartment:**

Driver's compartment shall meet or exceed 44.3 (20) of the Iowa Code Requirements.

A driver's document pouch or compartment shall be provided, the pouch is to measure at least 17 inches x 12 inches x 4 inches and be mounted to the barrier behind the driver.

A driver's cup holder mounted for driver's convenience is preferred if available.

A manual noise suppression switch shall be required per Iowa Code. See Also Sub Rule 44.3 (56)

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (21) Electrical System**

See Sub Rule 44.3 (85)

**44.3 (22) Emergency Equipment:**

Emergency equipment must meet all areas of 44.3 (22) of Iowa Administrative Code Legal Requirements and Regulations.

Seat belt webbing cutter of the hand grip style shall be required as part of the emergency equipment.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (23) and (68) Exhaust:**

Shall meet or exceed 44.3 (23) and (68) of the Iowa Code Requirements.

Single, horizontal muffler and long tail pipe, stainless steel, frame mounted on **right side**. Exhaust must be of sufficient length to reach vertical line of rear of bus body.

Exhaust system shall be compliant with new emissions standards for engine model year.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (24) Fenders, Front and Hood:**

Shall meet or exceed 44.3 (24) of the Iowa Code Requirements.

Hood must be forward tilting, fiberglass construction. The hood shall not require more than 20 pounds of force to open and shall include design features to secure hood in an open position.

Hood shall be of two tone paint design, top of hood to be non-reflective yellow paint for reduction of sun glare.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (25) Floor Insulation and Covering:**

Flooring shall meet 44.3 (25) of Iowa Administrative Code Requirements.

The fuel tank sending unit shall be provided with an **access opening** and cover, accessible from within the body.

Floor covering shall be **Tan** in color.

Floor underlayment shall be a minimum of 5/8” exterior grade plywood.

**\*New – Bus shall come equipped with the new one-piece style of floor covering to eliminate flooring gaps and leaks into sub floor.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (26) Frame:**

Shall meet or exceed 44.3 (26) of the Iowa Code Requirements.

Frame rails shall have design and strength characteristics corresponding to standard practice for trucks of the same general load characteristics which are used for highway service. **Frame reinforcement shall be required where needed.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (27) Fuel System:**

Shall meet or exceed 44.3 (27) of the Iowa Code Requirements.

Diesel-powered system – one engine mounted fuel filter with a water/fuel separator, supplied and installed by engine manufacturer.

Fuel Tank – Minimum of 65 U.S. Gallons tank capacity. The actual draw capacity shall be 83% or more of the tank capacity. Fuel tank must have protective cage meeting FMVSS at date of manufacturer in accordance with SBMTC School Bus Design objectives August 1996 edition.

Fuel tank to be mounted on inside frame rail behind rear axle area.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (28) Alternate Fuel. Does not apply to this bus.**

**44.3 (29) Fuel Fill Opening and Cover:**

Must meet Iowa Code 44.3 (29) of Iowa Administrative Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (30) Governor:**

An engine governor is required.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (31) Heating and Air Conditioning:**

Shall meet or exceed Iowa Code 44.3 (31) Of Iowa Administration Code Requirements.

Heaters:

Interior body heating system shall include

- A. One left front heater with defroster minimum of 90,000 BTU, with H/D fan motors.
- B. One right front heater with defroster minimum of 50,000 BTU, with H/D fan motor
- C. One left side rear, under seat, heater mounted rear of wheel well, minimum of 80,000 BTU rating with heavy duty fan motors.
- D. All heater cores shall have changeable filter to protect cores from dirt.
- E. Body dealers shall be responsible for engine coolant protection to minus 40 degrees F and match chassis manufacturers engine coolant.

Heating system plumbing should be of **parallel** plumbing design, but series plumbing design is acceptable.

**\*New – Air conditioning: Bus shall come equipped with air conditioned interior.**

- A. Condenser: Roof mounted condenser unit.
- B. Evaporator: Front and rear flush bulkhead mount evaporator unit.
- C. Compressor: 120,000 BTU capacity system.
- D. Bus Roof: Shall be white roof for cooler interior temperatures. See body Spec 44.3 (13).
- E. Alternator: 320-amp 12-volt alternator.

Meets above specifications:            ( ) yes                            ( ) no

Description: \_\_\_\_\_

**44.3 (32) Heating System:**

Shall meet or exceed 44.3 (32) of the Iowa Code Requirements.

**Coolant protection shall be minus 40 degrees F from factory.**

Meets above specifications:         yes                     no

Description: \_\_\_\_\_

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**44.3 (33) Headlamps:**

Shall meet or exceed 44.3 (33) of the Iowa Code Requirements.

Halogen bulbs required.

Day time running lights system shall be provided.

Meets above specifications:         yes                     no

Description: \_\_\_\_\_

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**44.3 (34) Hinges:**

Must meet Iowa Code 44.3 (34) requirements.

Meets above specifications:         yes                     no

Description: \_\_\_\_\_

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**44.3 (35) Horn:**

Shall meet or exceed 44.3 (35) of the Iowa Code Requirements.

Dual electric horns meeting SAE Standard J377.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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#### **44.3 (36) Identification:**

Bus identification must meet section 44.3 (36) of the Iowa Code Requirements.

Bus must have “Dubuque Community School District” vinyl decal on each side of bus in 6-inch letters.

Bus must have its designated numbers vinyl decal in 6-inch black letters on the following areas:

- A. Next to entrance door
- B. Above entrance door-behind bus manufacturer decal.
- C. On rear, below tail light on right side of bus
- D. Above driver’s window and visible from the left side-behind bus manufacturer decal.
- E. On left side of bus below stop arm area
- F. The front bumper is to have 6 inch **yellow reflective** numbers on the left front area of the bumper
- G. The words “Diesel Fuel” to be displayed on or near fuel access cover.

**SPECIAL NOTE:** The bus company will install the bus identification and fleet numbers. **Bus fleet number is to be: 984, 985.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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#### **44.3 (37) Instruments:**

Shall meet or exceed 44.3 (37) of the Iowa Code Requirements.



Instrument panel must have the following instrumentation.

- A. Speedometer
- B. Odometer – 7 digits including tenths of miles
- C. Voltmeter with alternator malfunction indicator light (if available)
- D. Oil pressure gauge – with low oil warning light and alarm
- E. Water temperature gauge with high temp alarm and warning light
- F. Fuel gauge
- G. High beam indicator
- H. Dual air pressure gauges with low air buzzer
- I. Turn signal indicator
- J. Glow plug indicator where appropriate
- K. Tachometer
- L. Rheostatically controlled dash panel lights
- M. Hour meter required
- N. DEF Gauge
- O. Transmission temperature gauge
- P. Headlight warning buzzer with key off

Meets above specifications:             yes                             no

Description: \_\_\_\_\_

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**44.3 (38) Insulation:**

Shall meet 44.3 (38) of the Iowa Code Requirements.

Thermal insulation in the ceiling and the walls shall be fire resistant, UL-approved and a minimum 1 ½” thick with a minimum R-value of 5.5. Roof bows shall be insulated in accordance with 44.3 (38) “a”.

Meets above specifications:             yes                             no

Description: \_\_\_\_\_

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**44.3 (39) Interior:**

Interior must meet 44.3 (39) of the Iowa Code Requirements.

Sound insulation package to reduce noise in ceiling throughout entire bus interior is required.

**Child Reminder System:** Bus shall come equipped with Child Reminder System, for drivers to walk to back of bus and deactivate the system before getting off the bus, insuring “No Child Is Left Behind”.

**Inside Height: Inside Body Height Shall be 78 Inches.**

\*New – bus ceiling interior shall have rivets instead of sheet metal screws.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (40) Lamps and Signals:**

All lamps and signals must meet 44.3 (40) of Iowa Code Requirements.

Bus body shall have (2) 7-inch amber turn signal lamps mounted on body front cowl below windshield on each front body corner. Hood fender mounted turn signal lamps are **not** allowed.

Black visors over 8 light warning system lens is **not** required.

All protruding marker/clearance lights to be mounted with armor guards.

Strobe light – Bus shall be equipped with low profile, all weather exterior, heavy duty strobe, double flash, **mounted not less than one foot or more than 18 inches from rear center of bus is required.**

Specialty Strobe Model 205 Mini is preferred or equivalent.

\*New: All exterior lights shall be L.E.D.

The strobe light must be controlled by a separate switch with an indicator light, when lit will indicate that the strobe is on.

The strobe must be approved by Iowa Department of Transportation.

**K. Warning Signal Lamps:** The buses shall come with “Supplemental Warning Lights” supplied loose with bus. Weldon Part Number W3200-000-11 Kit. The DCSD will install the system.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (41) Measurements:**

Measurements must meet or exceed 44.3 (41) of Iowa Code Requirements.

Bus overall height, length, and width shall not exceed the maximum allowed by the Iowa D.O.T.

Bus interior height shall be 78 inches.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (42) Metal Treatment:**

Metal treatment must meet or exceed 44.3 (42) of the Iowa Code Requirements.

Under body of bus body must be completely sealed and undercoated for further rust prevention.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (43) Mirrors:**

Mirrors must meet or exceed 44.3 (43) of the Iowa Code Requirements.

**Rear view mirrors – Exterior:**

Rosco “Open View” exterior rear view mirrors, to be mounted on body so as to not obstruct vision of seated driver to the right or left. The mirrors are to be “heated”.

Heated mirrors should be on a “Heated Mirror Timer” of about 12 to 30 minutes.

**\*New: Remote control rear view mirrors both left and right shall be required.**

**Rear view mirrors – Interior:**

Must be 6” x 30” Rosco mirror minimum.

**Crossover mirrors:**

Dealers to use Mirror Lite High Def Busboy Crossover “heated” hood mirrors.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

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**44.3 (44) Mounting:**

Mounting of bus body shall meet or exceed 44.3 (44) of Iowa Code Requirements.

Meets above specifications:             yes             no

Description: \_\_\_\_\_

**44.3 (45) Mud Flaps:**

Mud flaps shall meet or exceed 44.3 (45) of the Iowa Code Requirements. Mud flaps shall be rubber type, not vinyl.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (46) Oil Filter:**

Engine mounted oil filter must be replaceable element type (spin on preferred).

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (47) Openings:**

All openings in the floor board or fire wall between chassis and passenger compartment must be sealed.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (48) GVWR: Passenger Load**

29,000 LB Minimum

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (49) and (58) Passenger Securement Seating System:**

Passenger securement shall meet or exceed 44.3 (49 )and (58) of the Iowa Code Requirements.

**\*New: Bus shall come equipped with two lap/shoulder restraint seats. Flexible design feature, thus allowing three-two seating on the same 39-inch seat, depending on student size. Locate the seats at position 1R and 3R from front of bus.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (50) Public Address System:**

Bus shall be equipped with a public address system.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (51) Radio System:**

We will install our own 2-way radio.

Bus shall be equipped with an AM/FM Stereo Radio System with PA system, including speakers throughout bus interior.

**\*New: Two-way radio coaxial cable – factory installed and routed in bus body.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (52) Retroreflective Material:**

Retroreflective material shall meet or exceed 44.3 (52) of the Iowa Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (54) Rub Rails:**

Rub rails shall meet or exceed 44.3 (54) of the Iowa Code Requirements.

**\*New: Rub rails shall be sealed on top edge for better corrosion protection.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (55) and (57) Seats and Crash Barrier:**

Seats and crash barriers shall meet or exceed 44.3 (55)and(57) of the Iowa Code Requirements.

Seat cover material shall be a minimum of 42-ounce material.

Passenger seats shall be heavy duty construction, brown or tan in color, seat spacing shall be approximately 28–29 inches. Bidder shall provide seat material specifications and diagrams of seat spacing and seat construction with bid. Passenger seats shall be 28” New York Style High Back construction.

**\*New – Bus seating and barriers shall be equipped with fire block material.**

Bus seat backs shall be rated for vest cam wrap style belts.

All seats shall meet applicable FMVSS requirements and seat frames shall be capable for installation of Type 2 belts and/or Integrated Child Safety (ICS) restraint systems. Conversion of seats shall not require the removal of the seat from the bus floor and will re-use the base frame of the standard seat.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (56) Driver’s Seat:**

Driver’s Seat shall meet or exceed the 44.3 (56) of the Iowa Code Requirements.

Driver’s seat shall be an “air” spring suspension operated, high back seat such as manufacturer “National” brand, model 2000 is preferred, with lumbar adjustment, with seat positioning, and range of adjustments to accommodate comfortable actuation of the foot control pedals by 95 percent of male/female adult population.



Driver's seat shall be comfortable foam padding.

Driver's seat shall have armrests. Seat bottom cushion shall have multiple adjustment positions to allow changes in seat bottom angle.

Driver's seat shall be **cloth** upholstery.

Driver's seat belt shall incorporate high visibility material.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

#### **44.3 (58) Seating Passenger Restraints:**

No seat belts are required, seat backs shall be rated for vest cam wrap style belts.

**\*Note: Also See 44.3 (49) for special lap/shoulder bus passenger seating.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

#### **44.3 (59) Shock Absorbers:**

Chassis shall be equipped with double action shock absorbers compatible with manufacturers rated axle capacity at each wheel location.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

\_\_\_\_\_

**44.3 (60) Steps:**

Bus steps shall meet or exceed 44.3 (60) of the Iowa Code Requirements.

Bus step well shall have 3 steps. (Four (4) steps if you count the top floor level as a step.)

**\*New: A right side step well hand rail shall be installed in step well for student access.**

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (61) Step Treads:**

Step treads shall meet or exceed 44.3 (61) of the Iowa Code Requirements.

Step treads shall be Koroseal Pebble Top with Pebble White Nosing.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (62) Stirrup Steps:**

Stirrup steps are required as in 44.3 (62) of the Iowa Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

**44.3 (63) Stop Signal Arm:**

Stop arm shall meet or exceed 44.3 (63) of the Iowa Code Requirements.

Stop arm shall be electric operated **not** vacuum or air.

Stop arm must be equipped with LED, strobe bulbs.

Specialty MFG model 7980E is preferred.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (64) Storage Compartment:**

Bus storage compartments shall meet or exceed 44.3 (64) of Iowa code requirements.

**\*New: A storage compartment shall be located on left side dome panel area above driver. Storage compartments should be non-lockable.**

Bus shall have a front bulkhead air conditioner evaporator unit in place of a storage compartment.

Emergency equipment will be located in driver’s area where it can be safely mounted to floor and bulkhead areas.

**\*New – Underbody storage compartments:**

Bus shall come equipped with underbody storage compartments.

Driver side – ahead of rear axle – compartment size of approximately 91”L x 24”W x 22”H

Passenger side – ahead of rear axle – compartment size of approximately 79”L x 24”W x 22”H.

All compartment doors shall come with gas shocks.

Safety equipment compartment shall be plainly labeled to indicate location of equipment.

An enclosed space shall be provided in the driver's compartment for storing manuals and bus driver records.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (65) Suspension:**

Shall meet or exceed 44.3 (65) of the Iowa Code Requirements.

Front leaf type springs shall have a stationary eye at one end and shall be protected by a wrapped leaf in addition to the main leaf. Parabolic or taper leaf springs are acceptable. Front springs capacity 10,000 LB minimum.

Rear suspension to be air ride 19,000 LB minimum, 21,000 LB preferred.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (66) Steering System:**

Shall meet or exceed 44.3 (66) of the Iowa Code Requirements.

Power Steering is required.

The steering system shall be designed to provide a means for lubrication of all wear points.

Sheppard M-100 power or equivalent.

Steering column – tilting required.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (67) Sun Shield:**

Shall meet or exceed section 44.3 (67) of the Iowa Code Requirements.

Sun shield shall be an interior adjustable transparent sun shield not less than 6” by 30” with a finished edge, and shall be installed in a position convenient for use by driver.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (68) Tailpipe:**

See Sub Rule 44.3 (23)

Exhaust tailpipe shall exit at rear of bus, on right side.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (69) Throttle:**

A driver operated mechanical or electronic variable speed hand throttle shall be provided.

Meets above specifications:             yes                             no

Description: \_\_\_\_\_

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**44.3A (69A) Engine Power and Grade ability:**

250 horsepower Cummins Electronic Diesel, 660 LB-FT Net Torque at 1600 RPM, minimum. The engine shall have a key operated electric engine shut down. The engine shall have an engine mounted primary fuel filter. Engine shall meet EPA Emissions regulations, for model year of engine.

**Cab Sound Insulation:** Engine compartment shall have cab sound insulation including dash insulator and engine cover insulator.

**Engine Fuel Heater:** Engine shall have a fuel water separator with a thermostatic controlled heater, and water in fuel indicator combination.

**Engine Starter Motor:** Engine shall have a Delco Remy 38 MT starter motor with gear reduction drive.

**Engine Cooling:** The engine shall have an electric operated, **Warner Electric FC-550, electronically activated and controlled engine fan.** Engine shall have a heavy duty radiator for engine and transmission cooling.

**Engine Coolant:** Engine shall have extended life coolant.

**Engine Block Heater:** The block heater should be a 120-volt AC/750-watt element. The block heater cord socket shall be located in front bumper.

**Engine Intake Manifold Heater:** Engine shall have intake manifold heater for cold weather starting, controlled by the engine ECM.

Meets above specifications:             yes                             no

Description: \_\_\_\_\_

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**44.3 (70) Tires - Rims:**

Shall meet or exceed 44.3 (70) of the Iowa Code Requirements.

Rims – 8.25 x 22.5 Disc Steel Hub Piloted 10 Stud.

Front tires – 11R 22.5 Hankook AH12 Load Range G, 14 ply tubeless.

Rear tires – 11R 22.5 Hankook Z35A Load Range G, 14 ply tubeless.

Refer to 44.3 (4) Axles for more wheel information.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (71) Front Tow Hooks:**

Also See Sub Rule 44.3 (10)

**44.3 (72) Rear Tow Hooks:**

Rear tow hooks shall meet or exceed 44.3 (72) of the Iowa Code Requirements.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (74) Transmission:**

**Shall meet or exceed section 44.3 (74) of the Iowa Code Requirements.**

Allison 2500 PTS Series, 5 speed transmission with shift lever type selector.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (75) Trash Container and Holding Device:**

Trash container shall meet or exceed 44.3 (75) of the Iowa Code Requirements.

Dubuque Schools will install the trash container, please leave trash container loose in bus.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (76) Turning radius:**

Chassis shall have a curb to curb measurement of not more than 42 ½ feet in both directions, a tire path radius of 34 feet is preferred.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (77) Undercoating:**

Undercoating shall meet or exceed 44.3 (77) of the Iowa Code Requirements.

Meets above specifications:         yes                     no

Description: \_\_\_\_\_

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**44.3 (80) Ventilation:**

Ventilation requirements shall meet or exceed 44.3 (80) of the Iowa Code Requirements.

See also sub rule 44.3 (18)

Meets above specifications:         yes                     no

Description: \_\_\_\_\_

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**44.3 (81) Wheel Housings:**

The wheel housings shall meet or exceed 44.3 (81) of the Iowa Code Requirements.

Meets above specifications:         yes                     no

Description: \_\_\_\_\_

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**44.3 (82) Windshield and Windows:**

Windshield and windows shall meet or exceed 44.3 (82) of the Iowa Code Requirements.

Windshields shall be tinted glass of AS-I Rating, with upper shaded band.

An insulated double glass (thermopane) window shall be located behind service entrance on right side, at first right hand passenger seat and at first left hand passenger seat behind driver.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (83) Windshield Washers:**

Windshield washers shall meet or exceed 44.3 (83) of the Iowa Code Requirements.

Windshield washer shall be electric design.

Windshield washer tank should have a capacity of approximately six (6) quarts.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_  
\_\_\_\_\_

**44.3 (84) Windshield Wipers:**

Windshield wipers shall meet or exceed 44.3 (84) of the Iowa Code Requirements.

Windshield wipers shall be a positive action motor, 2 speed, **with intermittent electric** wiper motor design.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**44.3 (85) Wiring:**

Wiring shall meet or exceed 44.3 (85) of the Iowa Code Requirement.

Wiring circuits shall be protected by manual reset circuit breakers SAE Type III with trip indicators, 10 amp and larger at main panel.

All circuits shall be wired through ignition switch or ignition switch controlled relays, including the overhead warning light system.

All bus wiring shall be color coded and numbered for ease of circuit identification.

**A master bus chassis/body wiring diagram shall be supplied with each new bus,** the master bus-wiring diagram shall also include all the wiring schematics for the options that the bus was built with.

The bus body wiring shall be of the 12-volt system.

All the bus body wiring shall have an amperage capacity exceeding the design load by at least 25 percent.

All wiring to be protected by grommets when passed through a metal or sharp opening.

Bus body shall be compatible with chassis multiplex wiring.

**Child Reminder System:**

Bus shall come equipped with Child Reminder System, for drivers to walk to back of bus and deactivate the system before getting off the bus, insuring “No Child Left Behind”.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**Service Manuals:**

Chassis/Body manufacturer shall provide an **owner/operators manual, chassis/body service manual, complete parts manual, master wiring schematic and troubleshooting manual**, with each group bus purchase order.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**Other:**

**Warranty:**

Chassis/Body dealer shall provide complete warranty information schedule with bid proposal.

Chassis/Body dealer shall provide any information regarding extended warranty purchasing.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**Delivery Date:**

Buses are to be delivered to Dubuque Community School District between June 11, 2018 and June 15, 2018.

State your delivery date, if different from above.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**Programmable Parameters:**

- A. Buses shall be delivered with the cruise control feature turned off.
- B. Buses shall be delivered with (8) eight way warning system maximum initiation speed set up from 45 to 65 miles per hour.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**Optional: Extended Warranty:**

Specify manufacturer's extended engine and transmission/driveline warranty package.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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**Other:**

Chassis/Body dealer is responsible for any chassis/Body repairs before the bus is put into service by the school district.

Chassis dealer is to report any cost savings, such as early pay discounts.

Meets above specifications:             yes                     no

Description: \_\_\_\_\_

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