



***School District 158 Bid 2018-7***

***New or "One-Two Year Old" Conventional School Bus Specifications  
77 Passenger- HYDRAULIC BRAKES***

**CHASSIS OPTIONS**

<b>MODEL</b>	2017-2019 <b><u>New or "One-Two Year Old"</u></b> Model Body and Chassis 77 passenger capacity MINIMUM seat spacing of 27.75 inches- <b><u>provide floor plan with bid</u></b> 78" MINIMUM interior headroom 2017-2019 <b><u>New or "One-Two Year Old"</u></b> Model Body and Chassis	_____ _____ _____ _____
<b>AIR CLEANER</b>	Heavy duty type Firewall mounted with disposable element and integrated air intake hood plenum. Filter minder located on the filter.	_____ _____
<b>ALTERNATOR</b>	Minimum of Bosch 200 amp	_____
<b>AXLE FRONT</b>	10,000 lb. front axle minimum Wheel seals- oil lubricated front wheel bearings	_____ _____
<b>AXLE REAR</b>	21,000 lbs. rear axle minimum 5.57 rear axle ratio	_____
<b>BATTERY</b>	Three (3) 12 volt maintenance free – 2850 CCA	_____
<b>BATTERY DISCONNECT</b>	Metal battery disconnect switch located in the battery box, 300A, weather resistant. Switch will disconnect power to the <u>chassis and body</u> to increase battery power and life.	_____





Halogen headlights with day time running lights

Electronic cruise control with minimum activation speed set at 35mph and a maximum of 65mph

Headlamp alarm to activate when ignition is "off" and lights are "on"

High beam controlled by steering column mounted stalk

Daytime running lights to be activated when transmission is shifted into gear. Lights to be "off" when the transmission is in neutral or park position

All ignition switches to be keyed alike

**ENGINE**

Cummins B6.7 electronic in-line 6 cylinder turbo charged diesel engine, meeting new EPA standards for 2017

Engine to be **250 horsepower minimum-** specify horsepower

**HP**

Engine torque to be a **minimum of 660 ft. lbs.-** specify engine torque

**Torque**

Five (5) year 100,000 mile engine warranty

Water-in-fuel warning light and buzzer on the drivers dash

Fuel water separator with thermostatic fuel temperature controlled electric heater, filter/change indicator light, and fuel in water sensor on the dash

750 Watt engine block heater minimum. Weather type cover with rubber insulated seal mounted in the center of the front bumper for easy access

Extended Life Coolant- -40 degree anti-freeze

Yellow winter front installed

**EXHAUST**

Exhaust exit through bumper with heated mitigation device

**FRAME**

Heavy duty 50,000 PSI

**FUEL TANK**

100 gallon fuel tank mounted in the rear between the frame rails

Fuel tank must have heavy duty ICC guard mounted on



the outside of the frame rails for additional protection-**furnish factory drawing**

Fuel tank sender inspection plate mounted in the floor over fuel tank

Fuel tank filler door with positive latch

**STEERING**

Power with an 18" black cushioned tilt steering wheel

**SUSPENSION**

21,000 lbs. rear suspension

10,000 lbs. front taper leaf with maintenance free rubber bushings

Front and rear dual action type shock absorbers

**TIRES**

11R x 22.5 14 ply highway front and mud and snow rear

**TRANSMISSION**

**Allison Electronic Series 2500PTS, 5<sup>th</sup> Generation, 6 speed automatic transmission with DOUBLE overdrive**

Allison FuelSense Max transmission shift control parameters with EcoCal and Shift Sensing. Neutral at Stop and Acceleration Rate Management for improved performance and fuel economy

Synthetic type transmission fluid

**Seven (7) year Allison transmission warranty**

**WHEELS**

Tires and wheels to be balanced before delivery  
10 hole disc 22.5 x 8.25 (Hub Piloted)

**WHEELBASE**

276" Wheelbase maximum

**MISCELLANEOUS**

Two front hooks

**ENGINE HOOD**

Sloped fiberglass hood with splash shields and low effort tilt

Hood to have built-in open and close assist that does NOT require the driver to lift a hold open device to close



**SERVICE MANUAL** Web based diagnostic tool to include all wiring diagrams, service manuals, service tech bulletins, and repair history. If not available, furnish CD service manuals, wiring diagrams, and technical bulletins

**SERVICE LOCATIONS** Furnish a list of service locations and distances from Huntley that can work on the chassis, engine, and body

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**BODY OPTIONS**

**BARRIERS** Two (2) fully padded barriers, one on each side, mounted in front of the first row of passenger seats

Modesty panels between floor and bottom of barriers on the driver’s side and passenger side

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**BODY CONSTRUCTION** Body length to be a MINIMUM OF 34’11”  
specify length

	Feet	Inches
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16 gauge smooth exterior side panels-all panels

Four (4) rub rails applied to exterior of the body

Top of the rub rails to be sealed with caulk

12 inch rear bumper

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**CROSSING ARM** Electrical operated crossing arm with interrupt switch on the dash

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**DEFROSTER** Full width channel with separate snorkel for driver window and entrance door

Two (2) two-speed fans, one overhead center above windshield and one to the left of driver

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**EMERGENCY DOOR** Located in the center rear of the bus

Stainless steel maintenance free door hinges or internal hinges

Glass on top and bottom with door header pad and warning buzzer

Positive stop to hold door open when in use

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**DOOR ENTRANCE** Electrically operated entry door with exterior key to

open and close the door  
Both leafs to open outward with adjustment  
mechanism overhead, behind removable access panel  
a clear opening with a minimum of 36"

**specify opening size**

**Inches**

Entrance door to have non-corrosive handle on the  
exterior

Door to have an "in motion interlock" feature so the  
door cannot be opened while the bus is in motion to  
reduce potential of accidental opening- **Safety Item-**  
No Exceptions

**ELECTRICAL**

Fully integrated multiplex electrical system for both  
body and chassis with number and color coded wiring  
and matched weather proof connectors

Body circuit breakers to be manual-reset with trip  
indicators in lieu of standard fuses

Ignition controlled body cut off switch

8 lamp warning light system, halogen bulbs

Hoods over the 8 lamp system to reduce glare,  
background painted black

"Override" system for the electric door to allow driver  
to open and close the door while "RED" warning lights  
are still activated

"Noise Suppression Switch" on the dash

Back up alarm

12V cellular phone power outlet

Exterior light "Pre-Check" switch located on the dash  
which enables one person to complete a check of all  
exterior lights. This includes backup and brake lights

Fully integrated multiplex electrical system for both  
body and chassis with number and color coded wiring  
and matched weather proof connectors

Body circuit breakers to be manual-reset with trip



	indicators in lieu of standard fuses	_____
<b>EMERGENCY EQUIPMENT</b>	Three (3) triangular reflectors mounted in drivers area behind driver's seat off the floor	_____
	5 lbs. fire extinguisher mounted in drivers area	_____
	Body fluid kit mounted to the front header	_____
	First aid kit mounted to the front header	_____
<b>ROOF HATCHES</b>	Two (2) Transpec roof hatches with buzzer and outside release handles	_____
<b>FLOOR COVERING</b>	5/8" inch plywood	_____
	Gray colored flooring	_____
	Aluminum aisle moldings	_____
<b>GRAB HANDLES</b>	Two (2) stainless steel assist rails located forward and rear of the stepwell	_____
<b>HEATERS</b>	90,000 BTU driver's heater	_____
	50,000 BTU right front stepwell heater	_____
	80,000 BTU rear under seat heater	_____
	Two-quarter turn brass type shut off valves in engine compartment- <u>gate valves not acceptable</u>	_____
	Filters for <u>ALL</u> heaters front, stepwell, and rear	_____
	Heater booster pump, located in the engine compartment, with dash mounted switch	_____
	All heater hoses to have constant torque hose clamps	_____
	Deluxe diesel sound package with <u>FULL LENGTH</u> perforated headliner in the roof for noise reduction	_____
	1 ½" thick fire-resistant insulation in headlining, side and rear wall to deaden sound to reduce vibration and provide a thermal barrier	_____
	"TO COMMENT ON MY DRIVING" decal	_____
	"VIDEO" decals inside and outside	_____
<b>LIGHTS</b>	Two (2) rows of interior dome lights with a minimum	_____



of four (4) on each side and the driver's light on a separate switch

Step well light

Two 7" backup lights with clear lens

Three (3) "LED" amber flush mounted lights on front and three (3) "LED" red cluster lights mounted on rear, "LED" side marker lights with guards

Two (2) 7" amber rear directionals and two (2) amber lower fender mounted front turn signals

Two (2) "LED" side directional lights with armored shields

Roof mounted low profile strobe light with pilot light on the dash and access panel in rear header

7" stop lights and 4" tail lights to activate when brake pedal is depressed- total of 4 stop lights

7" cowl or hood mounted turn signal lights

**LOCKS**

All entrance door locks to be keyed alike

Exterior cowl mounted key to electrically operate the entrance door. Key to open/close the door and also secure the bus

Rear door vandal lock with starter interlock

**MIRRORS**

6" x 30" interior mirror

6" x 30" interior visor over driver's side window

6" x 30" interior visor over windshield

Heated and Remote Powered rearview mirrors

Heated cross view mirrors, fender mounted

**MUD FLAPS**

Rubber mud flaps on front and rear

**PAINT**

Exterior will be National School Bus Yellow with black trim

Paint will be a baked-on high solids polyurethane

All seat frames shall have a baked-on black powder coating for scratch resistance





<b>RADIO</b>	Panasonic AM/FM/CLOCK with public address system with 4 speakers. System to be dash mounted for easy access	
<b>RAILS, SHOULDER</b>	Padded shoulder rails	<hr/> <hr/> <hr/>
<b>SEAT- DRIVER</b>	Drivers seat-National 2000 high back, 7" fore/aft seat adjustment, switch activated 6" height adjuster, <u>GRAY</u> cloth insert and storage pocket on back. Height to be controlled by switch on the side of the seat Driver's seat to have an adjustable armrest on the aisle side Driver seat belt-3 point retractable shoulder belt to be wall mounted, "D Loop" type designed for air seats. 8" track on the wall for height adjustment. <u>Color to be BLAZE ORANGE</u>	<hr/> <hr/> <hr/> <hr/> <hr/>
<b>SEATS- PASSENGER</b>	All seats frames to be "SEAT BELT READY" for future installation of belts Gray seat upholstery color  High Back Passenger Seats. All seats must have an <b>interchangeable seat back module</b> that allows for future upgrades. Upgrades include 3 point lap/shoulder belt for up to 3 passengers per seat; Integrated Child Seat (ICS) with a 5 point harness and sliding shoulder height adjusters to accommodate significantly taller children. All upgrades to be accomplished without replacing or removing the seat base frame from the floor.	<hr/> <hr/> <hr/> <hr/> <hr/>
<b>STEPWELL</b>	Three steps covered with Koroseal "Pebble Tread" step treads for all three steps, non-metal backing, with white edge  The entrance and egress area, including the top landing area adjacent to the driver's seat, shall be unobstructed by the engine cover or other components Entrance steps to be a <u>36" wide</u> for increase	<hr/> <hr/> <hr/> <hr/> <hr/>

	passenger access, the stepwell shall remain its full width with no taper from the bottom step to the top step- Safety Item	
<b>STOP ARMS</b>	<b>Front stop arm.</b> Safe Fleet (Specialty) Model 6980 electric stop arm. High Intensity, reflectorized, with "LED" STROBING cluster lights, double sided	
	<b>Rear stop arm.</b> Safe Fleet (Specialty) Model 6980 electric stop arm. High Intensity, reflectorized, with "LED" STROBING cluster lights, double sided	
<b>UNDERCOATING</b>	Driver area and stepwell flooring panels shall be a minimum of 14 gauge material thickness including intermittent sills with a high performance conversion coating that chemically integrates and bonds with the zinc coating for increased corrosion resistance. ChemGuard or equal Entire underbody shall be completely undercoated with water-based undercoating	
<b>VENTILATOR</b>	Static non-adjustable exhaust located in low pressure area of front roof	
<b>WINDOWS</b>	Side and rear windows to be dark tinted- 28% light transmission Four (4) emergency push-out windows with large red lift handle, 2 each side with vertical hinges	
<b>WINDOW-DRIVER</b>	Driver's window shall be sliding sash aluminum frame- 70% tinted glass	
<b>WINDSHIELD</b>	Windshield shall be tinted safety plate laminated glass with five (5) inch glare resistant band at top and provide an unobstructed view for the driver	
<b>WIPERS</b>	Heavy duty electric bottom mounted, wet arm type Steering column mounted wiper switch shall have five intermittent speed and low and high speeds	

**MISCELLANEOUS**

**MISCELLANEOUS** Certificate holder 6"x 9" mounted to the front header



Compartment over the windshield, 47" long single piece door, with lever type latches, non-locking, centered over windshield  
Compartment over the windshield to have metal liner on the bottom, sides, and rear to secure video system DVR  
Two rear tow hooks mounted under the bumper

**REFLECTIVE TAPE**

3M Diamond Grade yellow reflective markings around emergency roof hatches, kickout windows, down both sides, perimeter of the rear door, rear perimeter of the entire rear end, and "SCHOOL BUS" lettering front and rear- furnish sample of tape in the bid

**CHILD DETECTION SYSTEM**

Child detection system. Wired to activate when the stop arm is started for the first time, shut off switch in the rear. All interior dome lights to activate for two (2) minutes when bus is turned "off"

**LETTERING**

Lettering and numbering  
"TO COMMENT ON MY DRIVING" decal  
"VIDEO" decals inside and outside

**TITLE AND LICENSE**

Dealer to cover all original costs for license and title  
New safety sticker at time of delivery

**2-WAY RADIO**

"Kenwood" two- way radio and antenna installed per District requirements  
Pre-wiring for a 2 way radio. Location to be in the exterior electrical access panel. Connections to be for power and grounding using a 20amp fuse protection. Must be labeled 2-way radio. Transfer of existing radios to new buses.

**DIGITAL VIDEO SYSTEM**

Transfer of existing records and cameras from trade – in buses to Pre-wiring for a video. Location to be in the exterior electrical access panel. Connections to be for power and grounding using a 20amp fuse protection. Must be labeled video.



One camera installed on the front bulkhead to view towards the back, one mounted over the driver's side window to view driver and stepwell, and one mount in back of bus on the driver's side to view the rear seats. DVR to be mounted in overhead storage compartment over the windshield

## OPTIONS

Economy fuel switches on the dash that changes shift point of the transmission. \$ \_\_\_\_\_

Daytime running lights to activate when trans. is in the drive or reverse positions only \$ \_\_\_\_\_

Electric entrance door interlock so door cannot be opening while bus is in motion. \$ \_\_\_\_\_

Locking electrical access panel on the outside below driver's window for easy access to chassis and body wiring. \$ \_\_\_\_\_

Pre-Check exterior light check system, single switch, includes backup and brake lights. \$ \_\_\_\_\_

Specify window type-

Side Windows- bonded \_\_\_\_\_ non-bonded \_\_\_\_\_

Rear Windows- bonded \_\_\_\_\_ non-bonded \_\_\_\_\_

Windshield- bonded \_\_\_\_\_ non-bonded \_\_\_\_\_

Rear Door Glass- bonded \_\_\_\_\_ non-bonded \_\_\_\_\_

Entrance Door Glass- bonded \_\_\_\_\_ non-bonded \_\_\_\_\_