

District Name: Henderson Co Schools District Code: 251 Facility Name: Bend Gate Elementary School School Code: 010

Project Name: Henderson County Schools Guarantee Energy Savings Contract

**PROJECT TYPE:** Yes No Gross Building Area (sf.)

New Building ☐ ☐ \_\_\_\_\_

Addition ☐ ☐ \_\_\_\_\_

Renovation ☒ ☐ 68,400

Provisions for Future Expansion: \_\_\_\_\_

Proposed Alternates: (1) \_\_\_\_\_  
(2) \_\_\_\_\_  
(3) \_\_\_\_\_

Describe special conditions, phasing of project and alternates, attach a supplemental sheet, if needed.

**BUILDING CONSTRUCTION CHARACTERISTICS:**

Description of Building Structure:

Foundation: \_\_\_\_\_

Exterior Walls: \_\_\_\_\_

Roof Structure: \_\_\_\_\_

**ENERGY EFFICIENT DESIGN (KRS 157.450 and KRS 157.455):**

64.0 Energy Consumption "Existing" (kBtu/sf/yr)

59.0 Energy Consumption Target (kBtu/sf/yr)

YES NO

☐ ☒ LEED Certified Other: \_\_\_\_\_

☐ ☒ Designed to meet Energy Star

☒ ☐ Exceeds ASHRAE 90.1(2007) by 10% (Minimum)

☒ ☐ Whole Building Life Cycle Cost Analysis Demonstrating Cost Effective Design

Life Cycle Cost Analysis Software Used: Trane Trace 700

If not yes to one or more of the above, explain why. \_\_\_\_\_

☐ ☒ Designed to be Net-Zero

☐ ☒ Designed to be Net-Zero Ready

**Energy Efficient Design Features: ( See List Page 4, or Use Drop Down List)**

East / West Building Orientation ☐ YES ☐ NO

Gross Exterior Wall Area (sf): \_\_\_\_\_ Avg. Exterior Wall R-Value: \_\_\_\_\_

Gross Window / Door Area (sf): \_\_\_\_\_ Avg. Window/Door R-Value: \_\_\_\_\_

Gross Roof Area (sf): \_\_\_\_\_ Avg. Roof R-Value: \_\_\_\_\_

Exterior Wall Type: \_\_\_\_\_ Other: \_\_\_\_\_

Roofing Type: \_\_\_\_\_ Other: \_\_\_\_\_

HVAC System Type: \_\_\_\_\_ Other: \_\_\_\_\_

Classroom Lighting: \_\_\_\_\_ Other: LED

Active Daylighting: \_\_\_\_\_ Other: \_\_\_\_\_

Passive Daylighting: \_\_\_\_\_ Other: \_\_\_\_\_

On Site Energy Generation: \_\_\_\_\_ Other: \_\_\_\_\_

Air Purification Systems : YES ☐ NO ☒

Gray Water System : YES ☐ NO ☒

Low Water Use Fixtures : YES ☒ NO ☐

Other: \_\_\_\_\_

**PLUMBING:**

Type of Sewage Disposal: \_\_\_\_\_

**HEATING, VENTILATION AND AIR CONDITIONING:**

Heating Only: \_\_\_\_\_ Heating & Mechanical: \_\_\_\_\_ HVAC: \_\_\_\_\_ A/C Only: \_\_\_\_\_  
Ventilation Only

Fuel Source/Backup (if applicable): \_\_\_\_\_

**ELECTRICAL:**

Source of Electric Power: _____	Lighting Intensity (fc.):
Voltage Serving Facility: _____	Std. Classrooms _____
Number of Convenience Outlets:	Library/Media Ctr _____
Classrooms _____	Science Lab _____
Library/Media Center _____	Science Clrm _____
Business Ed _____	Band/Music _____
Family & Consumer Science _____	Business Ed _____
Camera System: _____	Shops _____
	Corridors _____
	Stairways _____
	Cafeteria _____
	Pre-School Clrm _____
	Art Classroom _____
	Gymnasium _____

**SPECIAL EQUIPMENT:**

System	Conduit Only	Conduit & Wiring	Complete with Equipment
Bell	_____	_____	_____
Clock	_____	_____	_____
Fire Alarm	_____	_____	_____
Intercom	_____	_____	_____
Telephone	_____	_____	_____
Television	_____	_____	_____
Computer	_____	_____	_____
Wireless Network	_____	_____	_____
Interactive White bd	_____	_____	_____
Voice Amplification	_____	_____	_____

**FIXED EQUIPMENT:**

Teacher Cabinet	_____	Custodial Room Shelves	_____
Student Lockers	_____	Science Laboratories	_____
Folding Bleachers	_____	Family & Consumer Sci	_____
Library Furnishings	_____	Other	_____
Dry Food Shelves	_____	Other	_____

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**INTERIOR FINISH SCHEDULE:**

AREA	FLOOR	WAINSCOT	WALLS	CEILING
General Office				
Corridors				
Custodial				
Kitchen				
Cafeteria				
Gym				
Showers/Locker				
Toilets				
Library/Media Cntr				
Classrooms				
Music				
Art				
Science				
FMD				
OTHER AREAS				

Miscellaneous Project Specific Features: \_\_\_\_\_

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GESC Qualified Provider	_____	Date: _____
	Signature	
Kentucky Registered Engineer:	_____	Date: _____
	Signature	
Board Designee or Superintendent:	_____	Date: _____
	Signature	

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## Energy Efficient Design Features Lists

### Exterior Wall Type

- A - face brick, captured air space, board insulation and waterproof CMU
- B - face brick, captured air space, sprayed insulation on CMU
- C - face brick, captured air space, sheathing over metal insulated stud system, interior finish system
- D - face brick, ICF poured concrete, interior finish system
- E - other, describe

### Roofing Type List

- A - modified bitumen over rigid insulation
- B - EPDM over rigid insulation
- C - plastic single ply over rigid insulation
- D - metal roofing over nailable deck with insulation
- E - asphalt shingle roofing over nailable deck with insulation
- F - other, describe

### HVAC System Type List

- A - two pipe unit ventilator system
- B - water source heat pump system with air make up
- C - ground source heat pump system with air make up
- D - hybrid water source heat pump system with boiler/chiller and well field with air make up
- E - variable refrigerant flow (VRF) with air make up
- F - hybrid geothermal/variable refrigerant flow (VRF) with air make up
- G - variable refrigerant volume (VRV) with air make up
- H - hybrid geothermal/variable refrigerant volume (VRV) with air make up
- I - chilled beam system
- J - hybrid chilled beam/geothermal system
- L - other

### Classroom Lighting List

- A - T8 fluorescent fixtures
- B - T5 fluorescent fixtures
- C - high energy gas fixtures
- D - low voltage systems
- E - other

### Active Daylight System List

- A - classroom fluorescent dimming including dimming switches, ballasts and sensors
- B - occupancy light control sensors
- C - remote sensor bi-level lighting with no fixtures dimming
- D - manual bi-level lighting with no fixture dimming
- E - other
- F - none

### Passive Daylight Systems List

- A - upper classroom clerestory lighting with sloped ceiling plane
- B - lower classroom clerestory lighting that does NOT require sloping the ceiling place
- C - exterior light shelves
- D - solar tubes without dimming
- E - solar tubes with internal dimmers
- F - other
- G - none

### On Site Energy Generation List

- A - solar water heating
- B - solar electric generation (small units for demonstration or for limited areas)
- C - solar electric generation (to support the entire building's energy needs)
- D - wind generation (small units for demonstration or for limited areas)
- E - wind generation (to support the entire building's energy needs)
- F - other
- G - none