

District Name: Mercer County District Code: 421 Facility Name: Mercer Co. Elementary School School Code: 070

Project Name: Mercer County Schools Guaranteed Energy Savings Contract

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

New Building ☐ ☒ _____

Addition ☐ ☒ _____

Renovation ☒ ☐ 97,588

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):

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

38.0 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: _____

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: C - ground source heat pump system with air make up Other: _____

Classroom Lighting: E - other Other: LED

Active Daylighting: F - none Other: _____

Passive Daylighting: G - none Other: _____

On Site Energy Generation: G - none 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: X A/C Only: _____
Ventilation Only

Fuel Source/Backup (if applicable): N/A

ELECTRICAL:

Source of Electric Power: <u> Utility (KU) </u>	Lighting Intensity (fc.):
Voltage Serving Facility: <u> 277/480v </u>	Std. Classrooms <u> 50 </u>
Number of Convenience Outlets:	Library/Media Ctr <u> 75 </u>
Classrooms <u> NA </u>	Science Lab <u> 50 </u>
Library/Media Center <u> NA </u>	Science Clrm <u> 50 </u>
Business Ed <u> NA </u>	Band/Music <u> 50 </u>
Family & Consumer Science <u> NA </u>	Business Ed <u> 50 </u>
Camera System: <u> NA </u>	Shops <u> 50 </u>
	Corridors <u> 20 </u>
	Stairways <u> 20 </u>
	Cafeteria <u> 50 </u>
	Pre-School Clrm <u> NA </u>
	Art Classroom <u> 100 </u>
	Gymnasium <u> 50 </u>

SPECIAL EQUIPMENT:

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

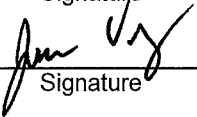
FIXED EQUIPMENT:

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

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: _____

Kentucky Registered Architect:	_____ Signature	Date: _____
Kentucky Registered Engineer:	 Signature	Date: <u>10-17-18</u>
Board Designee or Superintendent:	_____ Signature	Date: _____

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

For Reference