

District Name: Boone County District Code: 035 Facility Name: Cooper High School School Code: 015

Project Name: HVAC Controls REH Project # 129-924-1 Date: 3/13/25

PROJECT TYPE: Yes No Gross Building Area (sf.)
 New Building _____
 Addition _____
 Renovation 194,211

Provisions for Future Expansion: n/a

Proposed Alternates: (1) n/a
 (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):

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

43 Energy Consumption Target (kBtu/sf/yr)

YES	NO	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	LEED Certified Other: _____
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Designed to meet Energy Star
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Exceeds ASHRAE 90.1(2007) by 10% (Minimum)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	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. controls upgrades only

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: L- other Other: Controls Upgrade

Classroom Lighting: _____ Other: _____

Active Daylighting: _____ Other: _____

Passive Daylighting: _____ Other: _____

On Site Energy Generation: _____ Other: _____

OUTLINE SPECIFICATIONS ENERGY DESIGN CRITERIA

Project: Cooper High School - HVAC Controls

REH Project #129-924-1

Date: 3/13/25

Air Purification Systems : YES NO

Gray Water System : YES NO

Low Water Use Fixtures : YES NO

Other: _____

PLUMBING:

Type of Sewage Disposal: municipal

HEATING, VENTILATION AND AIR CONDITIONING:

Heating Only: _____ Heating & Mechanical: _____ HVAC: x A/C Only: _____
Ventilation Only: _____

Fuel Source/Backup (if applicable): _____

ELECTRICAL:

Source of Electric Power: Duke Energy

Lighting Intensity (fc.):

Voltage Serving Facility: 208/480, 3ph

Std. Classrooms n/a

Library/Media Ctr n/a

Number of Convenience Outlets:

Science Lab n/a

Classrooms n/a

Science Clrm n/a

Library/Media Center n/a

Band/Music n/a

Business Ed n/a

Business Ed n/a

Family & Consumer Science n/a

Shops n/a

Camera System: n/a

Corridors n/a

Stairways n/a

Cafeteria n/a

Pre-School Clrm n/a

Art Classroom n/a

Gymnasium n/a

SPECIAL EQUIPMENT: N/A

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: N/A

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

Project: Cooper High School - HVAC Controls

REH Project #129-924-I

Date: 3/13/25

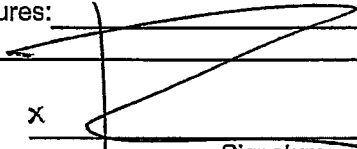
INTERIOR FINISH SCHEDULE: N/A

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:

X

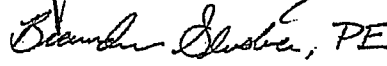


Signature

Robert Ehmet Hayes & Associates, PLLC

Date: 2/13/2025

Kentucky Registered Engineer:



Signature

Shroul Tate Wilson

Date: 2/13/2025

Board Designee or Superintendent:

Signature

Boone County Board of Education

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 plane
- 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

For Reference

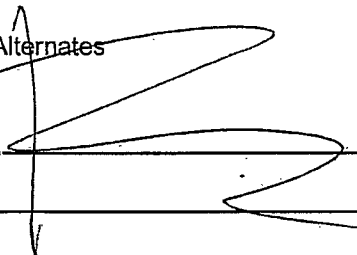
District Name: Boone County District Code: 035 Facility Name: Cooper High School School Code: 015

Project Name: HVAC Controls REH Project #129-923 Date: 3/13/25

Project Phase:	Design Development:	<input checked="" type="checkbox"/>	Construction Documents:	<input type="checkbox"/>
1. Site Development	\$			
2. General Construction	\$		12,000	
3. Heating, Ventilation & Air Conditioning	\$		1,757,412	
4. Plumbing (Include Sprinkler System)	\$			
5. Electrical Work	\$			
6. Sewage Disposal System	\$			
7. Total Construction Cost (1-6)				1,769,412
8. Site Acquisition Cost (Purchase Price)	\$			
9. Legal Services	\$			
10. Fiscal Agent Fee	\$			
11. Bond Discount	\$			
12. Architect/Engineer Fee	\$		116,781	
13. Construction/Manager Fee (if Applicable)	\$			
14. Equipment/Furnishings (Not Fixed)/Computers	\$			
15. Property & Topographic Survey	\$			
16. Geotechnical Survey & Report	\$			
17. Special Inspections	\$			
18. Asbestos Abatement	\$			
19. Commissioning Fee	\$		25,000	
20. Plan Review Fee	\$			
21. Printing & Distribution of Bid Docs / Adv / Reimb	\$		1,500	
22. Contingencies - Minimum 5% of Line 7	\$		88,471	
23. Testing and Balancing	\$		5,000	
24. Total Other Cost (8-23)				236,752
25. TOTAL PROJECT COST (line 7 + line 24)				\$2,006,164

- a. Gross Square Foot Area*
- b. Total Cost Per Square Foot
- c. Total Cost Per Pupil
- d. Gross Sq. Ft. Area of Alternates
* Base Bid Area Only

\$ _____

Kentucky Registered Architect/Engineer:  Date: 2/13/25

Board of Education Designee: _____ Date: _____