KENTUCKY DEPARTMENT OF EDUCATION

702 KAR 4:160

BG-2 OUTLINE SPECIFICATIONS ENERGY DESIGN CRITERIA

| District Name: Gallatin C | ounty | District Code: | Facility Name: | Gallatin County Lower ES | School Code: | 191010 | | |
|---------------------------|---|--------------------------------------|--|--------------------------------|--|---|--|--|
| Project Name: | Gallatin Co | unty Schools Gua | ranteed Energy Savi | ngs Contract | | | | |
| PROJECT TYPE: | Yes | No | | lding Area (sf.) | | | | |
| New Building | 163 | NO | Gloss Bull | iding Area (St.) | | | | |
| Addition | | | · · · · · · · · · · · · · · · · · · · | | | | | |
| Renovation | | | 62 | 2,978 | | | | |
| Provisions for Future | Expansion: | | · | | | | | |
| Proposed Alternates: | : (1 |) | | | | | | |
| | (2 | ý | | | | | | |
| | (3 | | | | | | | |
| Describe special con | ditions, phas | ing of project and | alternates, attach a s | supplemental sheet, if needed. | | | | |
| BUILDING CONSTR | CUCTION CH | ARACTERISTICS | | | | | | |
| Description of Buildin | | | • | | | | | |
| • | • | | CONTROL OF THE CONTRO | | | | | |
| , canaanon | | | | | | | | |
| Exterior Walls | | | | | | | | |
| Roof Structure | | | West house | | | | | |
| rtoor otraotaro | * | | | | | | | |
| ENERGY EFFICIEN | T DESIGN (K | (RS 157.450 and | KRS 157.455): | | | | | |
| 40.6 | Energy Consumption "Existing" (kBtu/sf/yr) | | | | | | | |
| 37.6 | Energy Consumption Target (kBtu/sf/yr) | | | | | | | |
| YES NO | | | (·· | | | | | |
| | LEED Certi | fied | Other: | | | | | |
| | LEED Certified Other: Designed to meet Energy Star | | | | | | | |
| | Exceeds ASHRAE 90.1(2007) by 10% (Minimum) YES | | | | | | | |
| | Whole Build | ding Life Cycle Co | st Analysis Demonst | trating Cost Effective Design | NO | • | | |
| | Li | fe Cycle Cost Ana | lysis Software Used: | | Att data to the same of the sa | | | |
| If not yes to one or | more of the | above, explain w | hy | | | | | |
| | Designed to | o be Net-Zero | | | | | | |
| | | o be Net-Zero o be Net-Zero Rea | ıdv | | | | | |
| | Designed to | D be Net-Zero Nea | luy | | | | | |
| Energy Efficient De | | | e 4, or Use Drop De | own List) | | | | |
| East / West Building | Orientation | YES | NO | | | | | |
| Gross Exterior Wall A | • • | to the definition of the definition. | | Avg. Exterior Wall R-Value: | | | | |
| Gross Window / Doo | • • | | | Avg. Window/Door R-Value: | | | | |
| Gross Roof Area (sf) | : | | | _ Avg. Roof R-Value: | | | | |
| Exterior Wall Type: | A - face brick, | captured air space, bo | ard insulation and waterpr | oof CMU | Other: | 1 electric and a second and a second as a | | |
| Roofing Type: | | A - r | nodified bitumen over rigio | d insulation | Other: | | | |
| HVAC System Type: | *************************************** | ırce heat pump system | with air make up | | _ Other: | Geothermal | | |
| Classroom Lighting: | E - other | | | | _ Other: | LED | | |
| Active Daylighting: | | | | | Other: | | | |
| Passive Daylighting: | | | | | Other: | | | |
| On Site Energy Gene | eration: | | | | Other: | | | |

KENTUCKY DEPARTMENT OF EDUCATION

BG-2

702 KAR 4:160 OUTLINE SPECIFICATIONS ENERGY DESIGN CRITERIA

| Air Purification System | ns: YES NO | | | |
|---|---|---|---|-------------------------|
| Gray Water System : | NO | | | |
| Low Water Use Fixtur | es: YES NO | | | |
| Other: | | | | |
| *************************************** | | *************************************** | | |
| | | | | |
| PLUMBING: | | | | |
| Type of Sewage Dispo | osal: | | | |
| HEATING, VENTILAT | ION AND AIR CONDITIONING: | | | |
| Heating Only: | Heating & Mechanical: Ventilation Only | | HVAC: | A/C Only: |
| Fuel Source/Backup (| if applicable): | | | |
| ELECTRICAL: | | | | |
| Source of Electric Pov | ver: | | Lighting Intensity (fc.) | |
| Voltage Serving Facili | ty: | | Std. Classrooms Library/Media Ctr Science Lab | |
| Number of Convenien Classrooms | | | Science Clrm | |
| Library/Media Center | | | Band/Music Business Ed | |
| Business Ed Family & Consumer Si | cience | | Shops Corridors | |
| | oletioe | | Stairways | |
| Camera System: | | | Cafeteria Pre-School Clrm | |
| | | | Art Classroom | |
| | | | Gymnasium | |
| SPECIAL EQUIPMEN | <u>IT</u> : | | | |
| System | Conduit Only | Conduit 8 | k Wiring | Complete with Equipment |
| Bell Clock | | | | |
| Fire Alarm | | | , , , , , , , , , , , , , , , , , , , | |
| Intercom | | | | |
| Telephone Television | | | | |
| Computer | | | | |
| Wireless Network Interactive White bd | | | | |
| Voice Amplification | | | | |
| FIXED EQUIPMENT: | | | | |
| Teacher Cabinet | • | Cı | ustodial Room Shelves | |
| Student Lockers | | _ So | cience Laboratories | |
| Folding Bleachers Library Furnishings | | | amily & Consumer Sci ther | |
| Dry Food Shelves | | | ther | |

OUTLINE SPECIFICATIONS ENERGY DESIGN CRITERIA

702 KAR 4:160

| INTERIOR FINISH SCHEDULE: | | | | | | | | |
|---|----------------------|----------|---------|-----------------------------|--|--|--|--|
| AREA | FLOOR | WAINSCOT | E WALLS | CEILING | | | | |
| General Office Corridors Custodial Kitchen Cafeteria Gym Showers/Locker Toilets Library/Media Cntr Classrooms Music Art Science FMD OTHER AREAS | | | | | | | | |
| Miscellaneous Pro | ject Specific Featur | es: | | | | | | |
| GESC Qualified Pr | rovider | Signatur | e Speed | Date: 6/16/22 Date: 6/16/22 | | | | |
| Kentucky Register | ed Engineer: | Signatur | | Date: 6/16/22 | | | | |
| Board Designee or | Superintendent: | Signatur | e | 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