OUTLINE SPECIFICATIONS ENERGY DESIGN CRITERIA

| District Name: | Breathitt C | county | District Code: | Facility 61 Name: | Sebastian Elementary School | School Code: | 390 | | |
|---|--|-----------------|---------------------------------|----------------------|--------------------------------|-----------------|-------------------------|--|--|
| Proje | ect Name: | | | | | | | | |
| | T TYPE: | Yes | No | Gross Bu | uilding Area (sf.) | | | | |
| New Buil | ding | | ✓ | | | | | | |
| Addition | | | ✓ | | | | | | |
| Renovati | on | ✓ | | 4 | ,477 sf | | | | |
| Provisions for Future Expansion: NA | | | | | | | | | |
| Proposed | d Alternates: | (1) | | | | | | | |
| | | (2) | | | | | | | |
| | • | ditions, phasir | ng of project and alter | · | supplemental sheet, if needed. | Classroom | ns & new restrooms. | | |
| BUILDIN | IG CONSTR | UCTION CHA | ARACTERISTICS: | | | | | | |
| | on of Buildin | | | | | | | | |
| · | | • | ncrete spread footing | S. | | | | | |
| | | | | | | | | | |
| E: | xterior Walls: | : Existing: Ty | pe A - CMU loading b | earing with Bric | ck veneer. | | | | |
| Ro | Roof Structure: Existing: Steel bar joists and deck. | | | | | | | | |
| ENERGY | / EFFICIENT | DESIGN (K | RS 157.450 and KRS | <u> 157.455)</u> : | | | | | |
| | 65 | _Energy Con | sumption "Existing" (| kBtu/sf/yr) | | | | | |
| | 65 | _Energy Con | sumption Target (kBt | u/sf/yr) | | | | | |
| YES | NO | | | | | | | | |
| | ✓ | LEED Certif | ied Ot | her: | | | | | |
| | ✓ | Designed to | meet Energy Star | | | | | | |
| | ✓ | Exceeds AS | HRAE 90.1(2007) by | 10% (Minimum | 1) | | | | |
| | ✓ | Whole Build | ing Life Cycle Cost A | nalysis Demons | strating Cost Effective Design | | | | |
| | | Lif | e Cycle Cost Analysis | Software Used | d: | | | | |
| | | more of the a | above, explain why. cessary. | This is a | minor renovation to repurpose | rooms uti | lizing existing rooftop | | |
| | ✓ | Designed to | be Net-Zero | | | | | | |
| | ✓ | Designed to | be Net-Zero Ready | | | | | | |
| | Efficient Des | - | s: (See List Page 4, | or Use Drop [| Down List) | | | | |
| | - | | | NO | Avg Exterior Wall B Value | NA Evi | ating | | |
| Gross Exterior Wall Area (sf): NA - Existing Avg. Exterior Wall R-Value: Gross Window / Door Area (sf): Existing + 100 sf New Avg. Window/Door R-Value: | | | | | | | NA - Existing | | |
| Gross Roof Area (sf): NA - Existing NA - Existing Avg. Roof R-Value: | | | | | | | - | | |
| Exterior Wall Type: A - face brick, captured air space, board insulation and waterproof CMU | | | | | | | Existing | | |
| Roofing | • • • | | B - EPDN | _ | Existing | | | | |
| HVAC System Type: | | L - other | | | | _ | Rooftop VAV | | |
| Classroom Lighting: | | E - other | | Other: | LED | | | | |
| Active Daylighting: | | | light control sensors | Other: | | | | | |
| Passive Daylighting: | | | | | | Other: | | | |
| On Site Energy Generation: G - none | | | | | | | | | |

OUTLINE SPECIFICATIONS ENERGY DESIGN CRITERIA

| Air Purification System | ns: YES | □ NO [| <u> </u> | | |
|--|------------------|--------------|-----------------|--|-------------------------|
| Gray Water System : | YES | □ NO [| <u> </u> | | |
| Low Water Use Fixtur Other: | | _ | _ | | |
| | | | | | |
| PLUMBING: | | | | | |
| Type of Sewage Dispo | osal: MUNICIPAL | | | | |
| HEATING, VENTILAT | TION AND AIR COM | NDITIONING: | | | |
| Heating Only: Heating & Mechanical: Ventilation Only | | | | HVAC: X | A/C Only: |
| Fuel Source/Backup (| if applicable): | NONE | | | |
| ELECTRICAL: | | | | | |
| Source of Electric Pov | wer: | Utility | | Lighting Intensity (fc.): Std. Classrooms | |
| Voltage Serving Facili | ty: | 120/208 3 Ph | ase | Library/Media Ctr | 50 N/A |
| 0 | | | | Science Lab | N/A |
| Number of Convenien | ce Outlets: | | | Science Clrm | N/A |
| Classrooms | | 7 | | Band/Music | N/A |
| Library/Media Center | | N/A | | Business Ed | N/A |
| Business Ed | | N/A | | Shops | N/A |
| Family & Consumer S | cience | N/A | | Corridors | <u>30</u> 20 |
| Camara System | | Py Owner | | Stairways Cafeteria | N/A |
| Camera System: | | By Owner | Pre-School Clrm | 50 | |
| | | | | Art Classroom | N/A |
| | | | | Gymnasium | N/A |
| SPECIAL EQUIPMEN | | | | · | |
| System | Conduit Only | | Conduit 8 | & Wiring | Complete with Equipment |
| Bell | | • | | | X |
| Clock | | • | | | Reclocating Existing |
| Fire Alarm | | i | | | X |
| Intercom | | • | | | X |
| Telephone | | | X | | |
| Television | | | X | | |
| Computer | | i | X | | |
| Wireless Network Interactive White bd | | • | | | |
| Voice Amplification | N/A | • | ^ N/ | | N/A |
| FIXED EQUIPMENT: | | | IN/ | <u> </u> | IVA |
| | - | | | | |
| Teacher Cabinet | | | - | ustodial Room Shelves | |
| Student Lockers | | | | cience Laboratories | |
| Folding Bleachers | | | | amily & Consumer Sci | |
| Library Furnishings | | | | ther | - |
| Dry Food Shelves | | | 0 | ther | |
| | | | | | |

KENTUCKY DEPARTMENT OF EDUCATION

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BG-2 OUTLINE SPECIFICATIONS ENERGY DESIGN CRITERIA

| INTERIOR FINISH SCHEDULE: | | | | | | | | | |
|--|----------------|---------------|-----------------------|---------|--|--|--|--|--|
| AREA | FLOOR | WAINSCOT | WALLS | CEILING | | | | | |
| General Office | | | | | | | | | |
| Corridors Custodial | VCT | NA NA | CMU, paint. | ACT | | | | | |
| Kitchen | | | | | | | | | |
| Cafeteria Gym | | | | | | | | | |
| Showers/Locker Toilets | Porcelain Tile | NA | CMU, epoxy paint. | ACT | | | | | |
| Library/Media Cn | tr | IVA | | | | | | | |
| Classrooms Music | VCT | NA | CMU, paint. | ACT | | | | | |
| Art | | | | | | | | | |
| Science FMD | | | | | | | | | |
| | | _ | | | | | | | |
| OTHER AREAS Vestibule | VCT | NA | CMU, painted | ACT | | | | | |
| SRO | VCT | NA | CMU & Gyp. Bd.,painte | ed ACT | | | | | |
| | | | | | | | | | |
| Miscellaneous Project Specific Features: | | | | | | | | | |
| Kentucky Registe | red Architect: | Date: 7/18/19 | | | | | | | |
| Signature | | | | | | | | | |
| Kentucky Registe | red Engineer: | ottoms, P.C. | Date: 7//7//9_ | | | | | | |
| Board Designee or Superintendent: Date: | | | | | | | | | |
| Signature | | | | | | | | | |

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