## **KENTUCKY DEPARTMENT OF EDUCATION**

BG-2
OUTLINE SPECIFICATIONS ENERGY DESIGN CRITERIA

### 702 KAR 4:160

District Name:	Marion		District Code:	375	Facility Name:	Bus Garage		School Code:	
Proje	ct Name:	Marion County Public Schools Guaranteed Energy Savings Contract						-	
PROJEC	T TYPE:	Yes	No		Gross Buil	ding Area (sf.)			
New Build		П			0.000 20	· · · · · · · · · · · · · · · · · · ·			
Addition	ag	П	□ ☑						
Renovati	on	<b>□</b>			7	,960			
	s for Future	_	_						
Proposed	d Alternates:		(1)						
•			(2)						
			(3)						
Describe	special con	ditions, pha	sing of project	and alterna	tes, attach a s	supplemental sheet,	if needed.		
	IO CONSTR	LICTION C	LIADACTERIO	TICC:					
			<u>HARACTERIS</u>	1105:					
Description	on of Buildin Foundation	•							
Exterior Walls:									
Ro	oof Structure								
ENERGY	EFFICIENT	ΓDESIGN (	(KRS 157.450	and KRS 15	5 <u>7.455)</u> :				
146.4		Energy Consumption "Existing" (kBtu/sf/yr)							
	75	_Energy C	onsumption Ta	arget (kBtu/s	f/yr)				
YES	NO								
	<b>V</b>	LEED Ce	rtified	Other	·				
	<b>V</b>	Designed to meet Energy Star							
<b>V</b>		Exceeds	ASHRAE 90.1	(2007) by 10	% (Minimum)				
	<b>V</b>	Whole Bu	ilding Life Cyc	le Cost Anal	ysis Demonst	rating Cost Effective	e Design		
			Life Cycle Cos	t Analysis S	oftware Used:				
If not yes	s to one or		e above, expl	_					
	<b></b> ✓	Designed	to be Net-Zero	 D					
	Ū.	•	to be Net-Zero						
Eneray F	Efficient Des	sign Featu	res: (See Lis	t Page 4. or	Use Drop Do	own List)			
	est Building			□ NC		<u>-</u> ,			
	•					Ava Exterior W	Vall R-Value		
Gross Exterior Wall Area (sf):  Avg. Exterior Wall R-Value:  Avg. Window/Deer B. Value:									
Gross Window / Door Area (sf):  Gross Roof Area (sf):  Avg. Window/Door R-Value:  Avg. Roof R-Value:									
Exterior V	Exterior Wall Type: Other:								
Roofing 1	Гуре:							Other:	
HVAC Sy	stem Type:							Other:	
Classroom Lighting:								Other:	
Active Daylighting:								Other:	
Passive Daylighting:								Other:	
On Site E	nergy Gene	eration:						Other:	

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## **OUTLINE SPECIFICATIONS ENERGY DESIGN CRITERIA**

Air Purification Systems	YES NO			
Gray Water System:	YES □ NO			
	: YES 🗆 NO			
PLUMBING:				
Type of Sewage Disposa	il:			
HEATING, VENTILATIO	N AND AIR CONDITIONING	<u>G</u> :		
Heating Only:	Heating & Mechanical: Ventilation Only		HVAC:	. A/C Only:
Fuel Source/Backup (if a	pplicable):			
ELECTRICAL:				_
Source of Electric Power	:		Lighting Intensity (fc.) Std. Classrooms	
Voltage Serving Facility:			Library/Media Ctr Science Lab	
Number of Convenience Classrooms Library/Media Center Business Ed Family & Consumer Scie Camera System:	Outlets:nce		Science Clrm Band/Music Business Ed Shops Corridors Stairways Cafeteria Pre-School Clrm Art Classroom	
SPECIAL EQUIPMENT:			Gymnasium	
System  Bell Clock Fire Alarm Intercom Telephone Television Computer Wireless Network Interactive White bd Voice Amplification	Conduit Only	Conduit	& Wiring	Complete with Equipment
FIXED EQUIPMENT:				
Teacher Cabinet Student Lockers Folding Bleachers Library Furnishings Dry Food Shelves			Custodial Room Shelves Science Laboratories Family & Consumer Sci Other 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:									
Kentucky Register		Date:							
		Signature							
Kentucky Register	ed Engineer:		Date:						
		Signature	_						
Board Designee or	r 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