



EARLY CHILDHOOD SCHOOL/ELEMENTARY SCHOOL

Oklahoma City Public Schools Elementary Gymnasiums/Safe Rooms Oklahoma City, OK



New Construction/Addition Sports facility/fitness center

Renaissance Architects

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Socrates Lazaridis
405/749-4642

DESIGN TEAM

Socrates Lazaridis, AIA, NCARB, Princ. Architect
Steve Burgess, Project Manager/Architect
Scott Chasteen, Architect, Const. Admin.
Wallace Engineering, Structural Engineer
PSA Consulting Engineers, Mechanical, Electrical,
Plumbing

OWNER/CLIENT

OCMAPS/Oklahoma City Public Schools
Oklahoma City, OK
Eric Wenger, Director of Public Works
David Todd, OCMAPS Program Manager
Aurora Lora, OKCPS Superintendent
405/620-7670

KEY STATS

Grades Served: PreK-6
Capacity: 362 (normal use); 1,100 (Safe Room use)
Size of Site: 0.32 Average
Building Area: 7,800 gsF
Space per Student: 21.5 sq. ft. (normal use);
7 sq. ft. (Safe Room use)
Cost per Student: \$6,171.27 (normal use);
\$2,030.90 (Safe Room use)
Square Foot Cost: \$286.41
Project Cost: \$13,408,000 (total);
\$2,234,000 (each gym)
Completion Date: August 2016

PHOTOGRAPHY: DAVID COBB PHOTOGRAPHY

We see a great momentum in the direction of making schools safe. Oklahoma City Council set the standards for such reform. Every new school building in Oklahoma City Public Schools must have a FEMA-designed safe room. Similar legislation has been proposed at the state level.

Oklahoma City Public Schools, in cooperation with OCMAPS, opened new gymnasium/

safe room building additions this August at six elementary schools: Edwards, Eugene Field, Fillmore, Heronville, Prairie Queen, and Rockwood. All six buildings are designed to FEMA standards and include restrooms, an office, storage and a multipurpose room. Each gymnasium features customized graphics to enhance the aesthetic quality and foster



school pride. Oklahoma City citizens passed an OCMAPS "MAPS for Kids" sale tax in November 2001, along with a bond to fund public schools. These schools are the first six schools to receive safe rooms under the OCMAPS projects. The six school additions meet the requirements of FEMA 361 and ICC-500 standards to withstand EF-5 tornados with 250 MPH winds.

While the six additions are safe rooms, they function as full-size gymnasiums to promote physical education as well. The gymnasiums include an office, boys and girls restrooms, storage room, and a multipurpose room to serve the needs of the schools throughout the year. The concrete masonry construction allowed technological systems such as outlets, intercom, security cameras, fire alarm, etc. to be installed within the walls before grout filling the walls solid.

By contrast, precast concrete safe rooms require systems to be surface mounted, lowering the aesthetic quality of the interiors. Sustainable design is used in the electrical and HVAC systems of the gym/safe rooms. The packaged rooftop units exceed IECC requirements and use an environmentally friendly refrigerant. All units include economizer operation, which allows for significant savings when outdoor air temperature and humidity are suitable for air conditioning the space.

The buildings include LED lighting, with energy usage of about one-half of that required by the energy code. Savings are realized in the energy required for lights and in the reduction of the air conditioning load. The systems of all six gyms are monitored and controlled through the Oklahoma City Districts Building Automation System. These gymnasium/safe rooms combine the necessity for usable education space and the lifesaving features of a FEMA safe room. With space for 1,100 people, each safe room can house the entire campus during severe weather. No longer do these schools have to choose between safety and education.

