

# Palm Springs Community Middle School

West Palm Beach, FL



## Team

### Owner:

School District of Palm Beach County  
West Palm Beach, FL

### Architect:

SchenkelShultz Architecture  
West Palm Beach, FL

### Engineer:

TKW Consulting Engineers, Fort Myers, FL

### General Contractor:

Klewin Construction Co.  
West Palm Beach, FL

### Total Project Cost:

\$28.210 million

### Total Project Size:

202,500 sq ft

### Photography:

SchenkelShultz Architecture

## STRUCTURAL FRAMING SYSTEM

The existing Palm Springs Community Middle School in West Palm Beach, Fla., had served teachers, parents and students since the 1960s, and it was time to provide a new learning environment incorporating today's teaching techniques. To achieve that goal while providing a dramatic appearance, designers used decorative tilt-up reinforced concrete wall panels to create a school to serve all of the community's needs.

The goal in designing a reinforced concrete structure was to create an appearance combining Gothic and Art Deco details with a durable, classic material that would require little maintenance and stand the test of time for many decades to come. The school also offers adult-education classes at night and holds community events during weekends, so the aesthetics had to blend middle-school appeal with a more civic presence.

## UNIQUE DESIGN FEATURES

Typically, the school district reuses architectural plans to minimize costs, but the small footprint available did not allow for a prototype design to be employed. That opened the door for the reinforced concrete tilt-up panels, which were designed so that all of the styling detail could be cast into the panels. Concrete offered a pliable material that could accept the ornate designs to achieve the look that was desired without requiring any special reinforcing needs. Both formliners and cast-in-place reveals were used to create the desired appearance cost effectively.

The school was designed as three self-supporting reinforced concrete "boxes," with each containing different school functions—administration, classrooms and cafeteria/gymnasium—with a composite-steel floor system and cast-in-place concrete slab. The three-tiered entry welcoming visitors and students combines reinforced concrete tilt-up panel lids and cast-in-place lids to create a tower more than 56 feet tall. The reinforced concrete panel used to create the grand entrance was the largest produced for the project, and it was not attached to the roof structure.

## REASONS FOR CHOOSING REINFORCED CONCRETE

Another key challenge came in designing and constructing the scalloped cornice along the building's top. Because the length of each reinforced concrete panel was different, the cornice piece was designed separately to ensure it fit the entire length without any concerns in removing it from the form.

The project required a tight schedule, as it had to be ready to open for the new school year. The building was constructed on the existing physical education fields, allowing the school to be built adjacent to the old one. Once it opened the old school was demolished to make space for new activity fields.

*Reinforced concrete provided an unlimited palette from which to create ornate designs*

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