East Cliff Elementary School

Portland, Texas

Architect

WKMC Architects, Inc.

The campus architecture draws from the 1950s with extensive use of durable, low-maintenance materials to provide long-term value in this corrosive atmosphere of salty ocean air.

Photos Courtesy of Jud Haggard

This new 800-student Pre-Kindergarten through fifth grade elementary school campus of Portland, Texas, was designed to replace an aging and obsolete campus constructed almost 60 years ago. Student safety, security, and energy efficiency were primary drivers which shaped much of the campus and site design.

This south Texas coastal suburban community has a rich architectural tradition shaped by the post-World War II school building boom. The campus architecture draws from that 1950s modern architectural heritage while integrating the most current building materials and technologies.

The extensive use of masonry and durable, low-maintenance materials provides the School District with long-term value. This new campus is highly resistant to hurricane force winds and the corrosive atmosphere of salty ocean air.

Energy efficiency was a key goal for the District in the design of this campus. The building incorporates a multitude of energy-saving features. Ninety-five percent of the lighting in the building is LED with digital controls.

The campus layout and window orientation were shaped by the desire to

Along with the modern design, ninety-five percent of the lighting in this building is LED with digital controls.

Generous canopies cover exterior walkways and student gathering places to reduce exposure to the harsh Texas sun.

place windows for the most beneficial solar exposure. All south-facing windows utilize solar screening to keep direct sunlight from entering the classrooms.

Statistics prove that standardized math and science test scores are higher for students who are taught in spaces with natural light. Natural light and carefully placed windows are used throughout the building of East Cliff Elementary School, and are featured in every classroom.

The classroom wings of the building surround the playground on three sides. This eliminated the distracting visibility of street traffic while students are outdoors. Generous canopies cover exterior walkways and gathering spaces, and help reduce the students' exposure to the harsh south Texas sun.

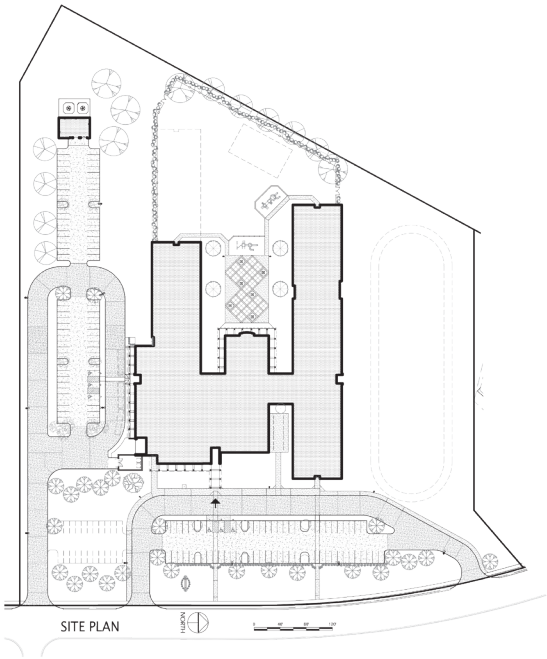
The interior corridor design incorporates recessed areas between the masonry colonnade. These areas are filled with tackable wall panels to create a virtual exhibit wall of student work and art. The Learning Resources Center serves as both the literal and figurative center of this new neighborhood campus. This school is truly a wonderful blend of both the latest technologies and time-tested traditional school design elements.

Product Information

Building Envelope: Acme;
Polished CMU/CMU: Headwaters Construction Materials
Membrane Roofing: Siplast
Metal Roofing: Berridge Manufacturing
Windows: Kawneer, Total Security Solutions; Pittsburgh Corning Glass Block
Curtain Wall: Kawneer
Entrances & Storefronts: Kawneer, Total Security Solutions
Interior: PPG Paints; Zolatone, USG, Tectum
Flooring: Azrock, Daltile, Mohawk, Bigelow,
General Polymers Epoxy Flooring
Lighting: Lithonia, Gotham, Amerlux, ConTech, Eureka, Finelite

The modern cafeteria offering entertainment while you eat.

Every classroom features carefully placed windows for natural light.



Architect

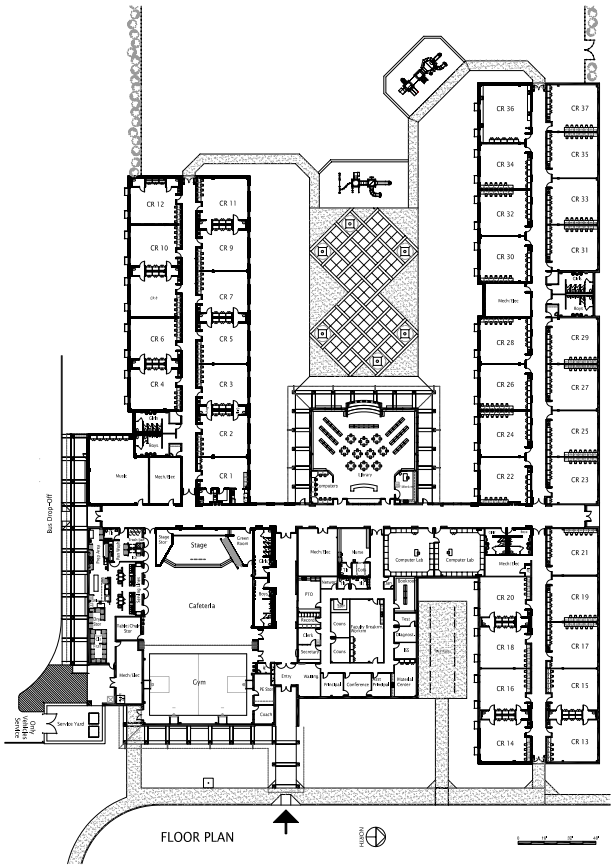
WKMC Architects, Inc.
909 S. Tancahua Street, Corpus Christi, TX 78404
www.wkmcarchitects.com

Project Team

Structural Engineer
REM Engineering, Inc.
6800 Park Ten Boulevard, #239E, San Antonio, TX 78213
Mechanical & Electrical Engineer
Stridde, Callins & Associates
342 S. Navigation Boulevard, Corpus Christi, TX 78405
General Contractor
Stoddard Construction Management, Inc.
30665 Highway 281, N., Bulverde, TX 78163

Project General Description

Location: Portland, Texas
Date Bid: Jul 2014
Construction Period: Jul 2014 to Aug 2016
Total Square Feet: 80,392
Site: 15.60 acres.
Number of Buildings: One; 37 classrooms.
Building Sizes: Central plant, 1,557; first floor, 78,835; total, 80,392 square feet.
Building Height: Central plant, 15'; first floor, 15'; gymnasium, 25'.
Basic Construction Type: New.
Foundation: Cast-in-place, reinforced concrete, slab-on-grade.
Exterior Walls: CMU, brick.
Roof: Membrane, metal.
Floors: Concrete.
Interior Walls: CMU, metal stud drywall.



DIVISION	COST	% OF COST	SQ.FT. COST	SPECIFICATIONS
PROCUREMENT & CONTRACTING REQUIREMENTS	574,061	4.26	7.14	—
GENERAL REQUIREMENTS	970,422	7.21	12.07	—
CONCRETE	1,352,919	10.05	16.83	Forming & accessories, reinforcing, cast-in-place, mass.
MASONRY	1,506,690	11.19	18.74	Unit.
METALS	1,410,116	10.47	17.54	Structural metal framing, joists, decking, cold-formed metal framing, fabrications.
WOOD, PLASTICS & COMPOSITES	348,140	2.59	4.33	Rough carpentry, finish carpentry, architectural woodwork.
THERMAL & MOISTURE PROTECTION	936,289	6.95	11.65	Dampproofing & waterproofing, thermal protection, weather barriers, membrane roofing, flashing & sheet metal.
OPENINGS	524,384	3.89	6.52	Doors & frames, specialty doors & frames, entrances, storefronts & curtain walls, hardware, glazing, louvers & vents.
FINISHES	1,059,806	7.87	13.18	Plaster & gypsum board, tiling, ceilings, flooring, wall finishes, acoustic treatment, painting & coating.
SPECIALTIES	123,650	0.92	1.54	Visual display boards, toilet compartments, metal lockers, fire extinguishers & cabinets, operable partitions, projection screen.
EQUIPMENT	264,656	1.97	3.29	Food service, residential, athletic.
FURNISHINGS	47,988	0.36	0.60	Stage curtains, shades, bicycle racks, cubical curtains.
FIRE SUPPRESSION	153,213	1.14	1.91	Water-based fire-suppression systems, fire extinguishing systems.
PLUMBING	830,668	6.17	10.33	Piping & pumps, fixtures.
HVAC	1,587,723	11.79	19.75	Air distribution, central heating equipment, central cooling equipment, central HVAC equipment, insulation.
ELECTRICAL	1,614,000	11.98	20.08	Medium-voltage distribution, electrical & cathodic protection, lighting.
COMMUNICATIONS	110,499	0.81	1.37	Voice, audio-video.
ELECTRONIC SAFETY & SECURITY	52,000	0.38	0.65	Detection & alarm, monitoring & control.
TOTAL BUILDING COSTS	**13,467,224**	**100%**	**$167.52**	
EARTHWORK	704,690			Site clearing, earth moving.
EXTERIOR IMPROVEMENTS	1,319,549			Bases, bollards & paving, site, irrigation, planting, striping, signage, ornamental fence & gate.
UTILITIES	264,332			Water, sanitary sewerage, storm drainage, electrical.
TOTAL PROJECT COST	**15,755,795**			

UPDATED ESTIMATE TO JUNE 2017: $188.13 PER SQUARE FOOT

Regional Cost Trends

This project, updated to June 2017 in the selected cities of the United States.

EASTERN U.S.	Sq.Ft. Cost	Total Cost	CENTRAL U.S.	Sq.Ft. Cost	Total Cost	WESTERN U.S.	Sq.Ft. Cost	Total Cost
Atlanta, GA	$206.04	$16,564,278	**Dallas, TX**	$199.33	$16,024,139	**Los Angeles, CA**	$266.51	$21,425,534
Pittsburgh, PA	$259.79	$20,885,394	**Kansas City, KS**	$268.75	$21,605,580	**Las Vegas, NV**	$244.12	$19,625,069
New York, NY	$331.46	$26,646,883	**Chicago, IL**	$279.95	$22,505,813	**Seattle, WA**	$266.51	$21,425,534

For more information on this project and similar projects visit www.dcdarchives.com