2012Exhibition of School Planning and Architecture

CASEY MIDDLE SCHOOL

Boulder, CO
K-12 / Middle School
Architecture
RB+B Architects, Inc.

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The 8.4-acre urban site incorporates a new football / soccer playing field of artificial turf which allows a much higher level of use by both the school and community. An outdoor plaza and stage along 13th Street fronts on the historic west elevation just two block from the Pearl Street Mall. The existing walls of the original 1924 school building, while creating an outdoor space, provides school and community gathering as well as a concert venues.

Photovoltaics / Covered Bicycle Parking

Community Environment:

The funding for the New Casey Middle School was part of a much larger district-wide, $297 million bond issue passed in November of 2005. The City of Boulder also committed $1.8 million to the New Casey Middle School stipulated for sustainable enhancements to include a LEED for Schools Gold or higher certification. The building has surpassed that goal and become the first school in Colorado to earn LEED Platinum.

The existing Casey Middle School was first constructed in 1924, as a three-story collegiate gothic structure. Additions were made in 1956, 1970, and 1990, for a total of 87,000 square feet on the site.

Concept Development

Planning Process: The
with the Design Advisory
involved 18 meetings ov
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Casey Middle School to
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School District. Sustaina
included minimal impact
visitor parking at the fron

Preserving Casey's Historic Walls

Planning Process: Reaching consensus on a design concept required the design team to listen carefully to a somewhat polarized, and many times emotionally charged, Design Advisory Team. There was a component of the DAT that wanted to preserve the 1924 collegiate gothic building. Many, however, saw the historic school with 675-square-foot classrooms and riddled with structural issues as unworkable for educating children into the future and wanted to see the existing building demolished and given a clean site for the New School.

The architect developed a concept for both scenarios, working closely with the CMGC, who developed construction cost estimates. The cost to renovate the historic building was $2.2 million higher than demolishing the existing school and building new. A third scenario of demolishing the existing building while saving the original west and south walls of the 1924 building surfaced. This third scenario received support from 22 of the 24 DAT members and moved forward.

Main Entry

Community Environment: The school accommodates after hours use by closing classroom areas while leaving the gym and auditorium open to the community. Both have their own separate entrance. The auditorium will have a full stage, support spaces and seating for 350 people. The cafeteria/commons also serves as a community use space and visually and physically opens to the large people-plaza to the east.

Daylit Classroom without Artificial Light

Learning Environment: Classrooms are grouped in teaching team arrangements around common spaces where student lockers, study/break-out space and teacher planning areas are located. These clusters of classrooms include a flex room which can be opened to the common space. The flex rooms may be used for seminars and small exploratory classes. The three-story classrooms are north-facing, allowing maximum daylight into the learning areas with minimal glare. The three-story classroom area facilitate separate levels for 6th, 7th, and 8th grades, a programmatic requirement. Enabling students to socialize in multiple environments was also important to the program. Common spaces, shared work spaces and integrated curriculum all support this goal. Additionally, not only incorporating sustainable design into the building but also incorporating it into the curriculum is an evolving goal for the school.

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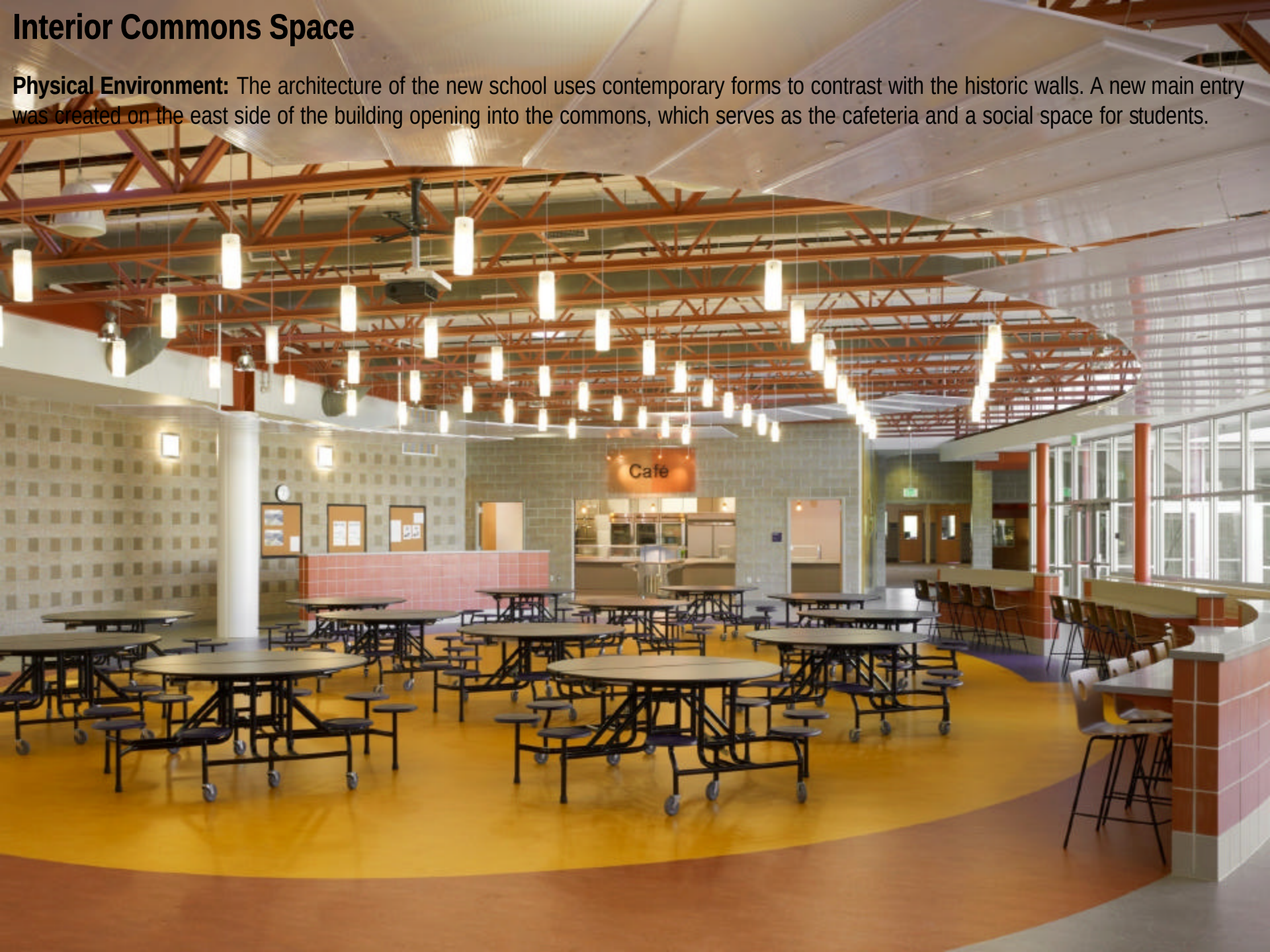
Learning Environment: Unique to Casey Middle School was the 350-student auditorium, which supports the [illegible] and performing arts that has been the hallmark of the educational delivery at Casey.

Interior Commons Space

Physical Environment: The architecture of the new school uses contemporary forms to contrast with the historic walls. A new main entry was created on the east side of the building opening into the commons, which serves as the cafeteria and a social space for students.



Achieving LEED Platinum

Physical Environment

With the added monetary infusion of the City of Boulder's Excise Tax, the design team was able to employ sustainable strategies that led Casey Middle School to become the first LEED Platinum school in Colorado. Sustainable features include:

Approximately 80% of required lighting levels achieved from controlled daylight.

- Heating and cooling of the school achieved by a water-to-air ground source heat pump.
- Recycled and low VOC materials used throughout.
- Xeriscaping and bioswales for water conservation.
- Auditorium retractable seating creating additional performing arts and instructional space.
- The site open space and playground was maximized by developing a below grade parking level for over 50% of the required parking by deepening the crawl space under the required structural floor (under the Gymnasium).

Exhibition of School Planning and Architecture Project Data

Submitting Firm :	RB+B Architects, Inc.
Project Role	Architect, Interior Designer
Project Contact	Lacey Reckelhoff, CPSM
Title	Director of Marketing
Address	315 E Mountain Ave, Suite 100
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Phone	970-484-0117

Construction Firm:	Saunders Construction
Project Role	General Contractor
Project Contact	Jason Godby
Title	Project Manager
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Other Firm:	MKK Consulting Engineers
Project Role	Electrical Engineer
Project Contact	Chris Williams
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Other Firm:	EMC
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Project Data

Other Firm:	Architectural Energy Corporation (AEC)
Project Role	Commissioning
Project Contact	John Wood
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Other Firm:	YRG Sustainability Consultants
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Other Firm:	JVA, Inc.
Project Role	Structural Engineer / Civil Engineer
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Other Firm:	Design Concepts
Project Role	Landscape Architect
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Project Data

Other Firm:	Kitchen Tech
Project Role	Kitchen Consultant
Project Contact	Brian Johnson
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Other Firm:	Geiler & Associates
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Project Contact	Daniel Hicks
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Phone	303-766-7100

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Project Details

Project Name	Casey Middle School
City	Boulder
State	CO
District Name	Boulder Valley School District
Supt/President	Dr. Bruce K. Messinger
Occupancy Date	August 1, 2010
Grades Housed	6-8
Capacity(Students)	600 students
Site Size (acres)	8.4 acres
Gross Area (sq. ft.)	106,458 sf
Per Occupant(pupil)	177 sf/pupil
gross/net please indicate	Gross
Design and Build?	No, CMGC Process
If yes, Total Cost:	
Includes:	
If no,	
Site Development:	$2,751,689
Building Construction:	$23,326,058
Fixed Equipment:	$474,216
Other:	
Total:	$26,551,963

Supplemental Image: Exterior Learning Areas

Technology is present school-wide. All teaching spaces incorporate wireless as well as wired internet access and include enhanced sound delivery, as well as having full video presentation. Dedicated computer labs for full class interaction are provided. The teaching spaces extend to the site with a presentation area and stage on the west plaza and an outdoor amphitheater space on the east plaza.

Supplemental Image:
Media Center

The library uses the historic façade for its full three-story space. One of the original entries will remain as a secondary entry into the library. Natural daylighting lights classrooms while tubular skylights balance the natural light in the rear of the room in both main and upper floor classrooms.

Supplemental Image:
Reusing Original Materials

The new school incorporates design elements from the original 1924 building, including the old gymnasium flooring which is repurposed as wall coverings throughout the building.