2018 Monarch Award

HIGH PLAINS PK-8 SCHOOL

Loveland, Colorado

PK-8 School

Hard Bid

RB+B Architects

ASSOCIATION FOR LEARNING ENVIRONMENTS
Enhancing the Educational Experience
Southwest Region

PHOTO #1

The facades of the building are divided into two main themes: the first emerges as solid gray brick forms and is used for more traditional spaces such as classrooms and administration. The second theme of vibrant colors is used at shared and community spaces such as the media center and STEAM labs.

PHOTO #2

Community Connections: The site provides connectivity between the school and community. Pedestrian connections are made to the neighborhood sidewalk system. A trail connection on the northeast side of the site provides access to the High Plains Environmental Center. Multipurpose fields are shared spaces with the city parks and the learning garden is jointly used by school and community.

PHOTO #3

The learning environment is formed by a north and south wing separated by a glass-lined gallery for student work, separating educational and public spaces. The gallery showcases student projects and artwork to connect students with their peers.

PHOTO #4

Rectangular forms, both inside and out, emerged in the design aesthetic to tie the building's simplicity of its volume with a richness of interest. A decentralized media center, spread over two floors, flows into circulation spaces and gives library services the casual feel of a bookstore or coffee shop. The media center combines a variety of spaces for learning including traditional reading/study, breakout spaces, a cyber café, and reader's nook.

PHOTO #5

The building’s emphasis is on STEAM curriculum—Science, Technology, Engineering, Art and Math. The north wing houses administration, Pre-K and Kindergarten suites, a gym, and cafeteria while the south wing is geared towards grades 1-8 learning.

PHOTO #6

The building layout includes rooms of varying sizes and openness to provide diverse learning options. All rooms were designed so that, as curriculum changes, the functionality of each space endures. Technology was wired to handle growth for more devices than the school currently operates.

PHOTO #7

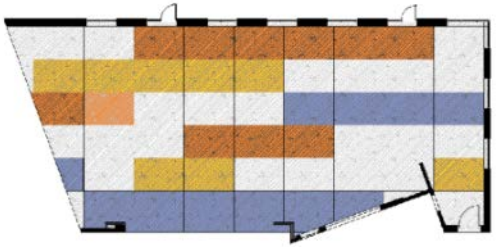
Opportunities for outdoor learning abound, as shown in this garden area. Students work throughout the year to grow vegetation and the process is part of the curriculum.

PHOTO #8

The school's 870 SF green roof—situated over the gallery—boasts over 200 SF of inhabitable space. The green roof, along with the ground-mounted planters to the south of the school, offer gardening experiences to students and a unique outdoor learning space where various topics, including plant biology, are taught.

Sustainability: Generous amounts of north and south facing windows provide optimal daylighting conditions throughout the building. The backbone of the heating and cooling system is a ground-source heat pump system. This system, coupled with 100% LEDs for lighting, allow for major reductions in energy consumption, saving the district thousands of dollars a year in operating costs.

PHOTO #10



Designed to Inspire: The school embeds S.T.E.A.M. concepts within the building. The geometric design of the cafeteria floor is in dimensions of feet in one direction and meters in the other, and various angles are etched into classroom floors. Both binary and morse code murals label the elevator on different levels. Other learning elements include animal prints in concrete, exposed pipes and cables to show building systems and special lighting forming a collage of the school's mascot. All of these features encourage exploration and discovery.


SOFT SURFACE FITNESS LOOP TRAIL
CONNECTION TO HPEC
MULTI-PURPOSE FIELD
BLEACHERS, TYP.
BALLFIELD
ADA ACCESS
SWINGS
PLAY EQUIPMENT
HARD SURFACE PLAY
SOFT PLAY AREA
PRE-K
PRE-K PARKING
ENTRY MONUMENT
SERVICE ACCESS
HIGH PLAINS SCHOOL
ORCHARD
SLAB SANDSTONE OUTCROP
OUTDOOR DINING
ASSEMBLY LAWN
DROPOFF PLAZA
TEACHER AND VISITOR PARKING
OUTDOOR CLASSROOM
LAWN AND EGRESS
GARDENS
SLAB SANDSTONE OUTCROP
ICY D LAKE AVENUE
BUS LOOP
LOST CREEK DRIVE
Boyd Lake
0
30
60
120 FEET
NORTH

SITE PLAN

FLOOR PLAN LEVEL 1

LEGEND

- **A** Kitchen
- **B** Music/Choir
- **C** Cafeteria
- **D** Gymnasium
- **E** Administration
- **F** Pre-Kindergarten
- **G** Kindergarten
- **H** Gallery
- **J** S.T.E.A.M
- **K** Classrooms
- **L** Special Education
- **M** Readers Nook

Level 1
Scale 1/32" = 1'

0' 32'

FLOOR PLAN LEVEL 2

LEGEND

- **A** Kitchen
- **B** Music/Choir
- **C** Cafeteria
- **D** Gymnasium
- **E** Administration
- **F** Pre-Kindergarten
- **G** Kindergarten
- **H** Gallery
- **J** S.T.E.A.M
- **K** Classrooms
- **L** Special Education
- **M** Readers Nook
- **N** Media Center
- **O** Cyber Cafe

Level 2
Scale 1/32" = 1'

0' 32'

PROJECT NARRATIVE

In March 2013, the design team was selected to design a vibrant PK-8 school that would accommodate 600 students. The completed school would embody a list of “firsts” for the District—the first STEAM program built from the ground up, the first district-run school for preschool through eighth-grade classes, and the first sustainably designed facility in the district. After a decade of planning and a year of construction, High Plains opened its doors to overwhelming excitement from the community.

A Design Advisory Group (DAG), which included roughly 25 members involving District staff, administrators, educators, facilities personnel, parents, designers, and community members, would help to set the vision and direction of the new School. The DAG discussed curriculum, how the facility could serve that curriculum, and the unknown changes that could occur in educational delivery over the next 50 years. The group formulated goals and explored site and building layouts.

Goals for the Building

1. Integrated/ STEAM Curriculum
2. Flexible Learning Environment
3. Personalized, Differentiated
4. Student Centered Learning
5. Ubiquitous Technology
6. Community/ Environmental Connection

Three design concepts were developed during the charrette process and the design team took the best ideas from each scheme and merged them into a final design solution.

After the charrette, the DAG continued to give input throughout design. During construction, this group transitioned into the Construction Review Committee and provided decision making and guidance until opening day.

Learning Environment

High Plains integrates a strong approach to outdoor learning. This emphasis led to a cutting edge architectural design. The building takes advantage of majestic Front Range views and creates a constant connection to the outdoors.

The learning environment is formed by a north and south wing separated by a glass-lined gallery for student work, separating educational and public spaces. The gallery showcases student projects and artwork to connect students with their peers.

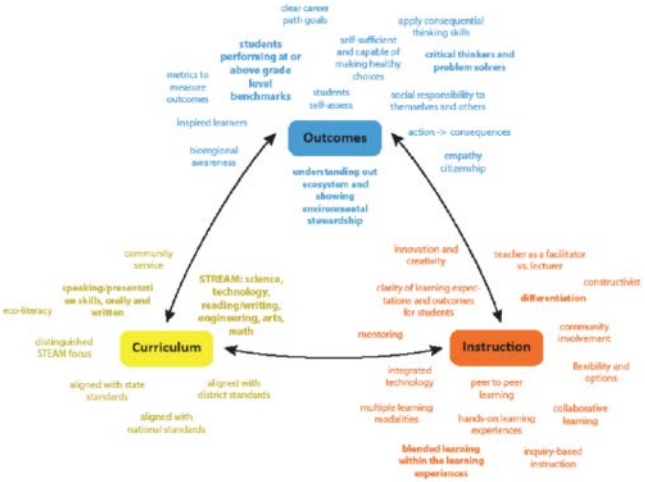
The building emphasizes STEAM curriculum—Science, Technology, Engineering, Art and Math. The north wing houses administrative offices, Pre-K and Kindergarten suites, gymnasium, and cafeteria while the south wing is geared towards grades 1-8 learning. The south wing is divided into four study pods (two on the first floor and two on the second). Each pod has four traditional classrooms (grouped by grade), restrooms, small group space and a shared STEAM room.

Common Areas

A decentralized media center spread over two floors flows into circulation and provides a casual feel of a bookstore or coffee shop. The media center combines a variety of spaces for learning:

An upscale cafeteria plan utilizes large expanses of windows and multiple seating options, ranging from round cafeteria tables, to small restaurant-style 4-tops, and raised counter seating. The design also includes a large outdoor dining area directly south of the cafeteria with views of the Rocky Mountains.

All occupied spaces have generous natural light and outdoor views. The configuration of these spaces adjusts as the students move from first through eighth grade. Younger students are located on the first floor and share a centralized reader’s nook and covered outdoor learning space. A learning garden is located directly south of the reader’s nook and is another opportunity for outdoor learning.



On the second level, the 5th through 8th graders have additional small group break-out spaces adjacent to the classrooms as well as STEAM labs focused on art and science with outdoor roof patios adjacent to each.

Flexibility for Change
The building layout includes rooms of varying sizes and openness to provide diverse learning options. Some rooms incorporate specializations such as science lab equipment or appliances for family and consumer sciences, while others are more general in layout and offering. All rooms were designed so that, as curriculum changes, the functionality of each space endures. Technology was wired to handle growth for more devices than the school currently operates.

Technology
The technology encourages teamwork and collaboration. Instead of the traditional projector screen at the front of room, multiple television screens and smart boards are placed in different sections of the classrooms. Teachers and students can plug into learning and easily transition from small groups to entire class learning without the traditional set up of rows of desks.

Physical Environment
The aesthetic of the building is a modern interpretation of a traditional hillside village. This school acts in many ways like a village to its students, where countless functions happen throughout the facility that the students will make use of over the 10 years they study here. The cohesive aesthetic enhances clarity and efficiency in the design. The facades of the building are divided into two main themes: the first emerges as solid gray brick forms and is used for more traditional spaces such as classrooms and administration. The second theme of vibrant colors is used at shared and community spaces such as the media center and STEAM labs. Rectangular forms both inside and out merge the building's simplicity with a rich aesthetic interest using the mosaic of these two themes across the building.

cooling system is a ground-source heat pump setup. This system, coupled with 100% LEDs for lighting, reduce energy consumption, saving thousands of dollars a year in operating costs.

The school's 870 SF green roof—situated over the gallery—boasts 200 SF of inhabitable space. The green roof, and the proposed ground-mounted planters to the south, will offer students gardening experience and a unique outdoor learning space where various topics like plant biology can be taught.

Learning Details Within the Building
The school physically embeds mathematical concepts within the design. The cafeteria floor pattern is in set dimensions of feet in one direction and meters in the other with different angles etched into classroom floors and both binary and morse code murals to label the elevator on different levels.

Other learning elements integrated into the design include concrete animal prints of various native species, exposed and labeled pipes and cables to show building systems, and special lighting fixtures formed of a collage of the school's mascot. All of these features encourage exploration, discovery, and wonder within the physical environment.

Safety and Security
Safety and security were important concerns and the design and integrated technology respond appropriately. The school has advanced camera systems, access controls and intrusion detection integrated into the design.

In addition, the office staff has clear views of anyone approaching the building from either main entrance and has the ability to lock down doors if a threat is detected. All visitors must enter from the east through the Reception area before being granted access to the building.

Community Environment
The primary entry area is located on the east side of the building and includes a drop off plaza and bike parking as well as an assembly lawn and

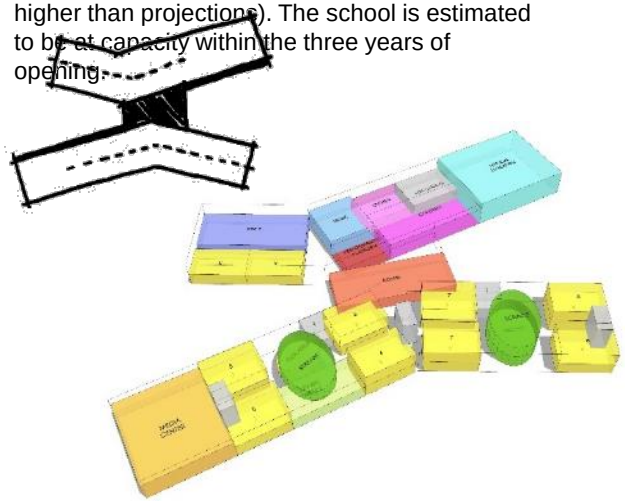
open when buses are dropping-off/picking-up children in the mornings and afternoons. This entry is closed when not in use for bus arrivals/departures so visitor entry to the school can be controlled at a single entry point.

The site and landscape of the school provides connectivity between the school and community. Pedestrian connections are made to the surrounding neighborhood sidewalk system which is located on all sides of the site. A trail connection on the northeast provides access to High Plains Environmental Center.

The multipurpose and softball field are shared spaces with city parks so they are utilized all year. The learning garden gives community members partial responsibility in tending to the plantings during the summer.

The project was funded through Tax Increment Financing, district funds and an intergovernmental agreement to provide a shared park area with the City of Loveland. The exterior includes drives and surface parking, hard surface play area, soft surface play area, grass lawns, a softball and multipurpose field.

The community's response to the High Plains PK-8 has been astounding. Over 395 students enrolled in classes the first year (significantly higher than projections). The school is estimated to be at capacity within the three years of opening.



PROJECT BUDGET

- See attached pdf

PROJECT DETAILS

1. Project Name	High Plains PK-8 School
2. District Name	Thompson School District
3. City/State	Loveland, CO
4. Superintendent	Dr. Stan Scheer
5. Occupancy Date	August 2016
6. Grades Housed	Preschool – 8th
7. Design Capacity (# of students)	555 Students
8. Site Size (acres)	13.4 Acres
9. Gross Area (Sq. Ft.)	63,365 SF
10. Space per Pupil (Gross)	114.2 SF/Pupil
Design Build (Y/N)?	N
If yes, Total Costs	
If yes, Cost Include:	
If no, Site Development Costs	$1,822,000
If no, Construction Costs	$16,165,525
If no, FF&E	$1,180,000
If no, Other:	
If no, Total Cost	$19,167,525

See attached pdf

ED SPECS / PROGRAM OF REQUIREMENTS

PROJECT DATA: *(CONFIDENTIAL INFORMATION)*

Submitting Firm:	RB+B Architects, Inc.
Project Role	Architect/Interior Designer
Project Contact	Lacey Reckelhoff
Title	Director of Marketing
Address	315 E. Mountain Ave., Suite 100
City, State or Province, Country	Fort Collins, CO, USA
Phone	970-484-0117

Joint Partner Firm:	thinkSMART planning, inc.
Project Role	Educational Planner
Project Contact	Molly Smith
Title	Principal
Address	1511 W. Kent Dr.
City, State or Province, Country	Chandler, AZ, USA
Phone	602-819-1629

Other Firm:	
Project Role	
Project Contact	
Title	
Address	
City, State or Province, Country	
Phone	

Construction Firm:	
Project Role	General Contractor
Project Contact	Terry Been
Title	Senior Project Manager
Address	141 Racquette Dr.
City, State or Province, Country	Fort Collins, CO, USA
Phone	970-221-4195

Print, Sign, Scan and Submit with Package

Name of Project: **High Plains PK-8 School**

Location of Project: **Loveland, CO**

A4LE has our permission to:

- ✓ Send photos electronically to jury members (required for entry).
- ✓ Display photos in the award winners' area of the website, if selected as a finalist.
- ✓ Display photos on other sections of the website as representative A4LE projects.
- ✓ Print photos in A4LE newsletters.
- ✓ Print photos on A4LE marketing materials, i.e. brochures , awards, call for entries, etc.
- ✓ Print photos and project details in the A4LE Design Portfolio, if selected as a finalist.
- ✓ Special projects with prior permission.

Please Note: A4LE maintains an in-house archive of school designs as part of our research library.

Your information will be entered and recorded as one of those designs.

Firm: **RB+B Architects, Inc.**

Responsible Party/Photographer: **Time Frame Images (Photos) and Tim O'Hara Photography (Photo on Project Narrative page)**

Signature: 

Date of Release: **3/28/18**

PHOTO RELEASE: *(RETURN SIGNED COPY WITH YOUR SUBMITTAL)*