

Lake City Community School

LAKE CITY, COLORADO



2021 A4LE LESOLUTIONS AWARDS

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Project Data

Project Name:	Lake City Community School Renovation and Addition
Type of Project:	Renovation / Major Addition
Size:	33,255 SF
Cost per sf:	\$385/SF
Completion Date:	August 2020
Location:	Lake City, Colorado

Scope

Full interior renovation of a K-12 school in a historic district into a 21st Century education space with a gymnasium addition to accommodate indoor and outdoor PE classes and recess with a stage and moveable bleachers to provide space for musical and theatrical events for both school and community events.

33,255 sf \$12.641M construction cost 2.5 acre site

Executive Summary

Constructed in 1986 on the site of the original brick school house, the Lake City Community School is a PK-12 school serving approximately 100 students in Hinsdale County, Colorado. The aging facility lacked the necessary space and facilities to adequately serve all of their students. Students frequently had to walk three and a half blocks from the school to the downtown armory for physical education. The Lake City Community School also had critical security, safety, and health concerns to address.

After completing the District's conceptual design in support of their Master Plan, The architect worked closely with the District and community members, holding six community meetings and a design workshop to ensure all voices were heard in the early stages of design. The architect also assisted the District with their successful BEST Grant application.

The renovation involved the construction of a new gymnasium, stage/music room, a Career and Technical Education (CTE) classroom, preschool classroom, and commercial kitchen. The new Gymnasium was a key feature of the design as the previous school was the only one in Colorado without a

Gym. Overhead doors allow the Gym to be used for indoor / outdoor PE classes and recess, and moveable bleachers and the stage provide space for musical and theatrical events. Updated security access features allow the Gym to be compartmentalized and utilized for community events. The Commons space is designed to operate in multiple capacities as a Commons for small-group learning, a cafeteria, and for concessions for event visitors. Colors and natural materials throughout the building honor the breathtaking beauty of Hinsdale County and reflect the historic neighborhood in which the school is located.

Sustainable design was also a priority of the design. Spaces in the interior of the building feature solatubes to distribute daylight and reduce electricity use, and classrooms were designed with prioritized access to daylighting. Displacement ventilation was specified to reduce Co2 levels, reduce classroom noise, and to provide improved occupant comfort and air flow.

LAKE CITY COMMUNITY SCHOOL

TOGETHER WE GROW



The Lake City Community

Constructed in 1986 on the site of the original 1880s brick school house, the Lake City Community School is a PK-12 school serving students in Hinsdale County, Colorado and is one of the earliest schools on Colorado's Western Slope. It is also extremely mountainous and remote, even by Colorado standards, with the continental divide crossing the county twice. In fact, according to the United States Geological Survey (USGS), Hinsdale County is the most isolated county in the contiguous United States. It is also described "one of the most roadless areas in the country."

Despite all these challenges and remote location, the Lake City Community School is rated as one of the top public schools of the 178 school districts in the state by the Colorado Department of Education. It has been recognized as a John Irwin School of Excellence several times, and is a District Accredited With Distinction by the Colorado Department of Education. In addition, the school has a low student-to-teacher ratio and broad community support for the students, teachers, and administration.

Vision: All students who pass through our halls shall be prepared for lifelong learning, responsible citizenship and a balanced, productive life.

Mission: Hinsdale County School District is committed to building an equitable and safe learning environment utilizing our individual capabilities that exemplifies ethical, diverse and inclusive civic leadership.

Values:

Community | Leadership | Inclusive School Culture
Holistic Approach to Learning | Academic Rigor/Relevance

Building History

1875

Lake City's first private school was organized in 1875 by Prof. T.H. Cannon, who taught a class of 40 students "all branches of English" for \$3 a month. For an additional \$2 a month, Prof. Cannon taught bookkeeping, business instruction and mining law.

1876

Hinsdale County School District No. 1 was formed in January of 1876 and enrolled 28 students in the county's first public school, one of the earliest schools on Colorado's Western Slope.

1880

In 1880 voters approved a \$12,500 bond issue to construct a "commodious two story building to be built either of brick or stone." Classes were held in the brick school from 1880 until 1949.

1949

In 1949 the second story was removed and the school was remodeled. Classes continued in the building until it was demolished in 1987 to make room for the center structure of the present school.

1987

The central portion of today's school was constructed in 1987. The design mirrors the rich architectural history of the area. The cupola dates to 1884 and was originally part of the Hiram C. Kelly estate in Cheyenne, Wyoming. Included in the structure are three elementary classrooms, library, administrative offices and a large commons area.

2001

In 2001, taxpayers approved a 1.5 million dollar bond issue which added a middle and high school wing with classrooms for math, science, history and language arts and a wing containing an arts room and classroom for pre-Kindergarten classes. The 1987 core building was remodeled for better administrative spaces and increased functionality.

2017-2019

A Master Plan was completed and facility needs were identified; funding was obtained through a successful BEST Grant and voter-approved bond measure; the planning of the addition and renovation was finalized; and construction began.

August 2020

The community celebrated the ribbon-cutting of the addition and renovation of the Lake City Community School.

Challenges

Although renovated and added on to over the decades, the aging Lake City Community school was in need of significant upgrades, with the lack of a gym being the most significant issue (it was the only public school in the state of Colorado without a gym). The lack of a gym caused students to have to walk more than six blocks from the school to the downtown armory for physical education. This posed significant safety concerns including the need for students to cross four intersections while enduring heavy tourist traffic and threats from local mountain wildlife. In addition, the Lake City Community School also had critical security and health concerns to address.

In 2015, voters of Hinsdale County School District rejected a bond measure to provide a gymnasium and safety improvements for the school. The primary concern was that the design and massing of the gym addition did not fit the context of the historic neighborhood. The District realized an architect was needed to develop a facilities master plan, provide input on the BEST Grant, and develop improved design solutions. Brought on board in late 2017, the architect had to mobilize quickly as BEST Grant applications were due in just two short months.

During design and construction, the Lake City community and Hinsdale County faced a number of intense challenges. Heavy snowfall caused a succession of late winter snow slides which blocked area roads, demolished the home of Lake City's sheriff (he and his family escaped harm during the incident), and sent a large amount of tree debris into local waterways. Spring snow melt, combined with the debris, then threatened to cause massive flooding throughout the valley. Local first responders and community members worked tirelessly to combat these natural disasters, including community sand bagging events, and the Lake City Community School site was spared from damage.

“With the need to pass a bond in our community in order to partially fund our project, it was critical to hire the best fit architect for our community and with our hiring process, we found just that. (The architects) addressed the planning process with a proactive, positive approach. Our experience has been that they bring excellent ideas to the table, they listen to our stakeholders with an open mind and they follow through with what they say they are going to do – true customer service!”

- Rebecca Hall, Superintendent/Principal
Lake City Community School, Hinsdale County School District RE-1

Community and Stakeholder Involvement



Working with Staff and Stakeholders

Example Workshop Agenda:

- Confirm building program
- Review survey results
- Discuss project goals
- Review concept plan, discuss pros and cons
- Brainstorm layout options

LISTEN AND BE HEARD | Provide opportunities for the staff to express concerns, communicate the solution!

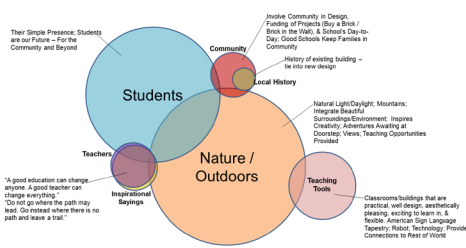
Because the school is a centerpiece of the tight-knit Lake City community, the planning process was public from start to finish. As a result, students, parents, staff, administration, and Lake City residents all felt the importance of the project and were active participants throughout design.

The Lake City community was brought together for three public meetings to determine if a new school could be built on another site or if the existing facility could be effectively renovated and expanded. The public meetings included teachers, parents, students, staff, and neighbors. It was ultimately determined that renovations and additions would be the best solution. There were no optimal sites in town that could accommodate a new school, and a new school would be cost-prohibitive for the small community.

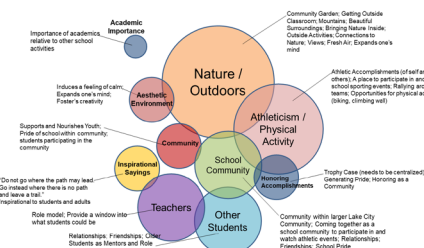
Community and Stakeholder Involvement (contd.)

To ensure the final environment aligned with the vision and goals set during the planning process, the architect held community meetings, user group meetings, a three-day design workshop, and numerous Design Advisory Group (DAG) meetings to continue to refine the design solution and respond to community concerns. 3D visualization was used throughout the process to communicate the intent of the design, and surveys were used to allow those involved to choose the final option.

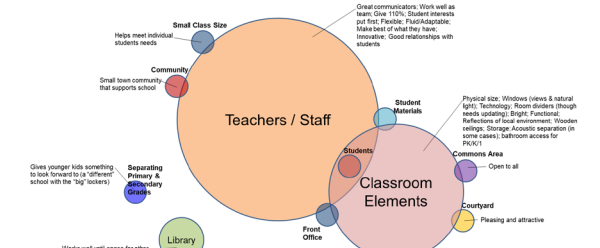
Q2: Take a photo of something that inspires you in your day-to-day



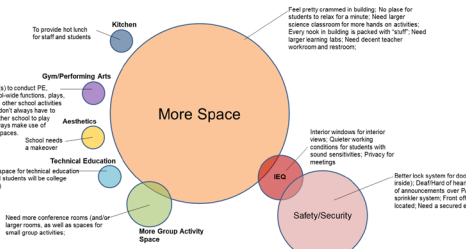
Q3: Take a photo of something that is inspirational for the students in your community



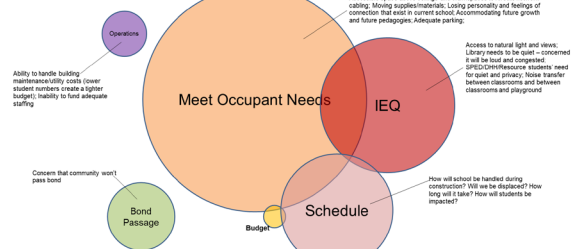
Q4: In the current school, what is working very well and why?



Q5: If you could change one thing in the current school, what would it be and why?



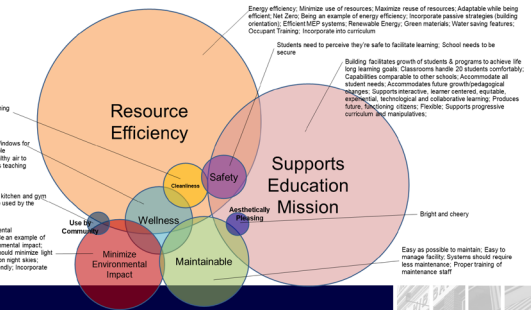
Q6: What is your greatest fear related to the school's renovation/addition?



Q7: Do you feel that lockers are required for middle and high school students?



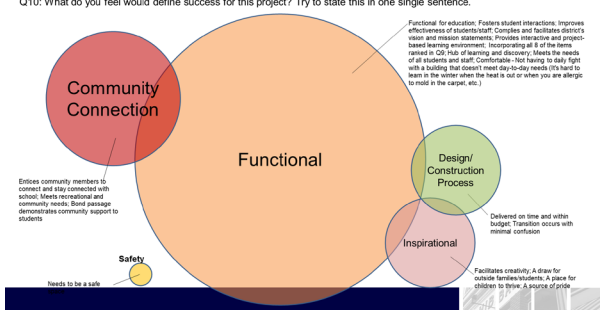
Q8: What does a sustainable educational environment look like to you and why?



Q9: Please rank the following in the order that you perceive their importance to the project (most important to least important).



Q10: What do you feel would define success for this project? Try to state this in one single sentence.



Community and Stakeholder Involvement (contd.)

Building Floor Plan Concepts

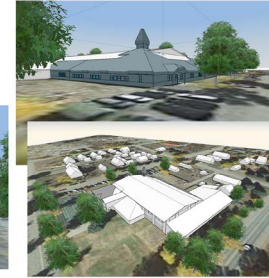


OPTION 1



Massing Study

Option 1



Building Floor Plan Concepts

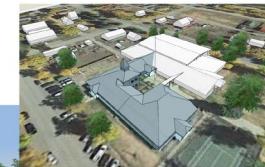


OPTION 2



Massing Study

Option 2



Building Floor Plan Concepts

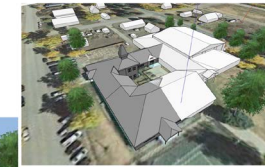


OPTION 3



Massing Study

Option 3



Building Floor Plan Concepts



OPTION 4



Massing Study

Option 4



Community and Stakeholder Involvement (contd.)



The architect helped the community settle on an addition and renovation design that could prioritize multi-functional elements to enhance security, health, and safety issues while still maintaining the character of the historic school site and the neighborhood. With the community united behind the plan and an approved BEST Grant in place, voters approved a \$3.95 million bond to ensure funding for the project.

The design and development of the final solution was truly done “hand-in-hand” with the Lake City community. During construction, open house tours were held to educate the community, staff, parents, and students on the project’s progress.



Educational Environment Design

Vision and Goals

The planning process resulted in the following goals for the Lake City Community School addition and renovation:

- **Critical safety and security upgrades**, including the relocation of the administrative offices for a more comprehensive view of the entire campus, a monitored and secure entrance with a keyless entry system, the installation of a school-wide fire suppression system, gas shut-off switches for the science and mechanical rooms, public announcement and surveillance systems, visual paging announcement system for the deaf/hard of hearing, and an enlarged commons area adjacent to the administrative offices.
- **Construction of a gymnasium and stage/music room**, improving the safety, health and security of students and staff to remain on a secure campus with increased classroom time for educational purposes. The facility would also enable students to have first ever home indoor sports games resulting in a large decrease in travel expenses and time as well as increase community engagement.
- **Construction of a Career and Technical Education (CTE) classroom**, allowing students opportunities for vocational programming on campus.
- **Construction of a commercial kitchen** next to the commons area to support a hot lunch program where none had existed before and provide options for culinary arts classes.
- **HVAC upgrades** to improve air quality and climate control issues.
- **The addition of a nurse's room** to provide adequate space addressing health, safety and wellness of all students.

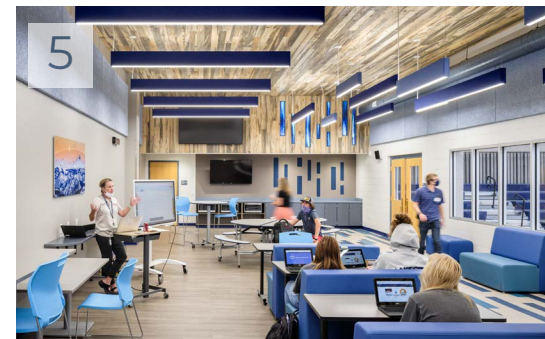
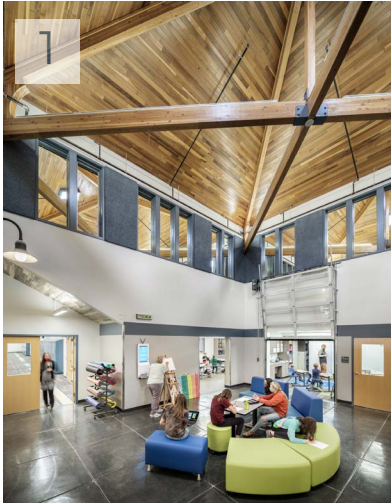
Adaptable Flexible Learning Environments to Support the Curriculum and Multiple Learning Styles

Numerous design options were presented and considered by the DAG. The selected floor plan allowed classrooms in the new facility to be designed as flexible learning environments capable of supporting multiple modes of teaching, learning, and educational activities. The overall design and organization of the classrooms also developed zones that maintain age-appropriate separation of elementary students from older students in the PK-12 facility.

The secondary classrooms are grouped along corridors to the north and east of the Commons and Gymnasium. The four main classrooms are focused on the subjects of English, Math, Social Studies, and Science. Another flexible classroom is provided for Spanish and Intervention.

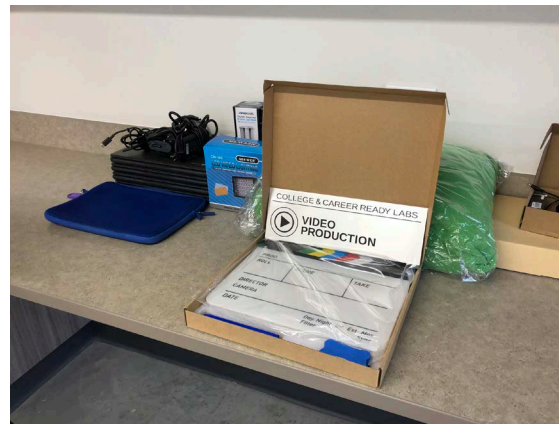
The elementary classrooms have been relocated to the south side of the building to allow for better access to the playgrounds and ease of parent drop-off/pick-up. Due to fluctuating demographics within the District, amenities within the classrooms are similar to allow flexibility to move classes to different rooms depending on the grade size.

Floor Plan



Flexible Design

A new classroom added to expand the science room into a dynamic Career Technical Education (CTE) space and Science, Technology, Engineering, and Math (STEM) suite. It has direct access to outdoors with an overhead door to allow flexibility in use and ease of movement for large materials and projects. The flexibility of its design also allows for additional programs to be incorporated as the overall CTE program evolves. A full-service kitchen was also added to the design to not only support a hot lunch program but to provide space for Culinary Arts instruction as well.



Flexible Design (contd.)

Immediately adjacent to the main entry is the Commons space, designed to operate in dual capacity as a Commons and a cafeteria. It connects to the existing gallery space to function for food service, break-out space for the Art and Library spaces, and as a small-group learning space.

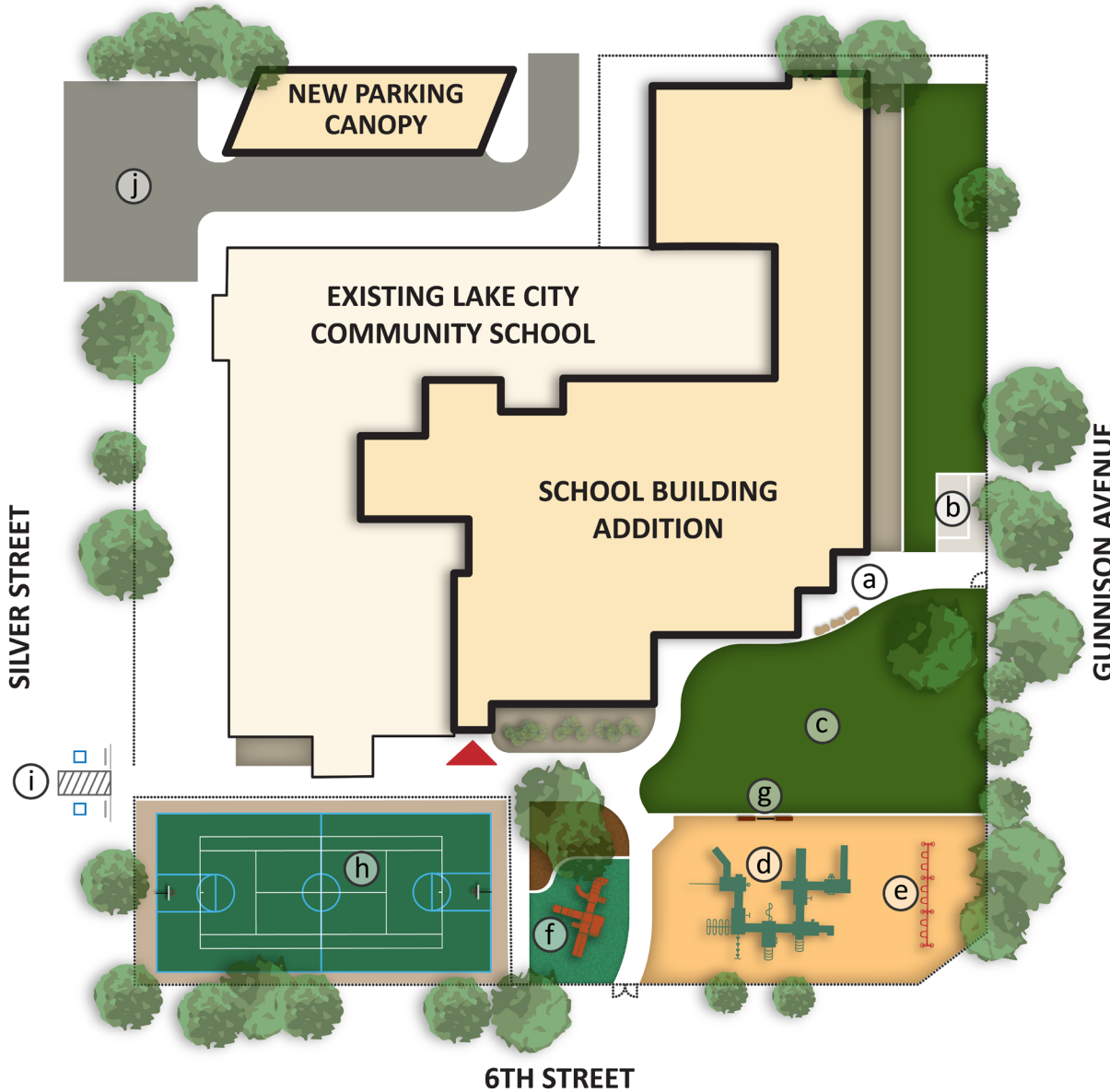


Flexible Design (contd.)










The Library and Art rooms are strategically located adjacent to one another allowing use by both elementary and secondary students. These spaces have the ability to open up to the gallery for break-out functions. The project also includes a dedicated music room and a stage that opens into the gym. This flexible space accommodates music, drama, and provides another general classroom which has proven invaluable during this COVID-19 pandemic.



Site Plan



SITE LEGEND

-  Existing Building / Structure
-  New Building / Structure
-  Sod
-  Concrete
-  Sand
-  Gravel Mulch
-  Gravel
-  Engineered Wood Fiber
-  Poured-in-place Surfacing
-  Fencing
-  Main Building Entry

SITE ELEMENTS LEGEND

- (a) New accessible sidewalk to connect improved site entry points, plaza spaces, building entrances and site amenities.
- (b) Long jump & sand pit
- (c) Multi-use field
- (d) New playground structure
- (e) New 3-bay swing set
- (f) New ECE playground
- (g) Relocated existing memorial plaque and benches
- (h) Resurfaced existing hard surface courts
- (i) New ADA parking stalls and sidewalk
- (j) New gravel in existing parking lot



Community Context



The new Gymnasium was designed to create a unique facility that belongs to Lake City and fosters a sense of community pride. The gym includes a new weight and fitness room and CHSAA regulation basketball and volleyball courts and seating for approximately 300 spectators. The south wall of the gym opens up with garage doors to allow students to spill outdoors for physical education (PE) or recess.

For school plays and musical performances, the moveable bleachers are utilized to allow for seating in front of the stage. The new Gymnasium has completely transformed PE classes and events for the school.



Community Context (contd.)

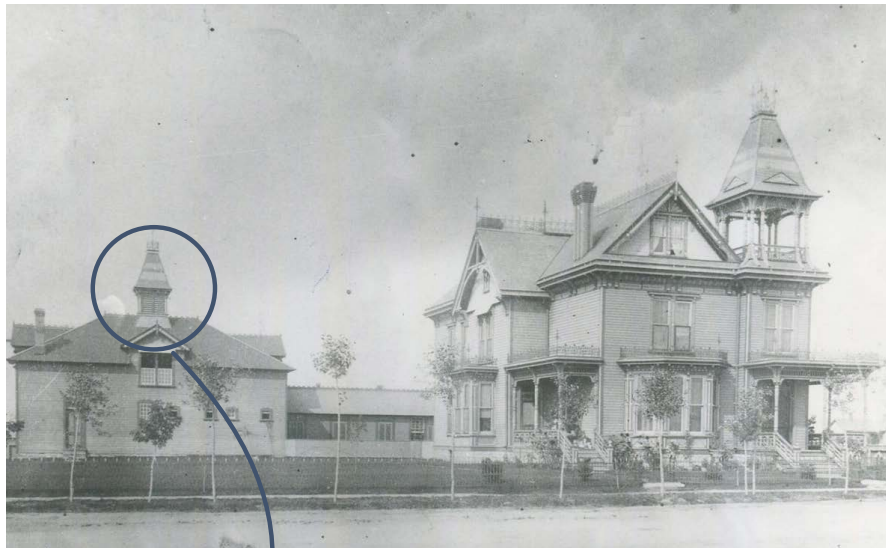


Lake City played a key role in the development of the American West, and residents of this remote mountain town diligently preserved their history and ever-evolving frontier culture. The architect worked closely with the Town Board of Trustees and the county Historical Society to ensure the mass and character of the addition did not overwhelm the site and that the exterior reflected the feel of the National Register Historic District in which the school is located.

Durable cement board was used to recall board and batten siding, and the old school's exterior brick walls were left exposed to honor the history of the facility. Paired with vertical windows, the exterior of the building blends with neighboring local historic structures concealing the large gymnasium inside.

Community Context (contd.)

The building's historic Victorian-era clock tower cupola dates to 1884 and was originally part of the Hiram C. Kelly estate in Cheyenne, Wyoming. The cupola has a 150-year-old history with the town and had been a feature of three different iterations of the community school. After its restoration, the cupola was gently lowered into place as a crowning feature over the school's new gabled entrance.



The Victorian-era clock tower cupola atop the Lake City Community School originally decorated the stables building in the 1880s at the Hiram Kelly Estate across from the State Capitol in Cheyenne, Wyoming.



The cupola came to Lake City after the stables building was demolished and was installed on the old Lake City school in 1986. After restoration, it was carefully lowered into place and now serves as a distinctive feature marking the gabled entry of the renovated school which is considered a centerpiece of the Lake City community.

Community Context (contd.)

Flexible spaces and updated security access features allow the Gym and Commons to be compartmentalized and utilized for community events. The gender-neutral restroom serves as a family restroom for the public, and the large overhead doors allow attendees for large events to spill outdoors. The nearby Commons includes concessions for event visitors. Those with small children can watch athletics or performances through the Commons windows while allowing little ones to play and stretch their legs. The Gym, with its locker rooms and showers, was also designed to serve as a community resource and may, as an example, host first responders in the event of a wildfire.



Interior Concepts Inspired by Natural Beauty

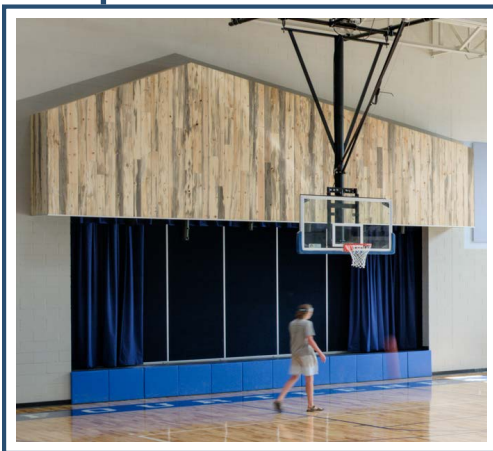
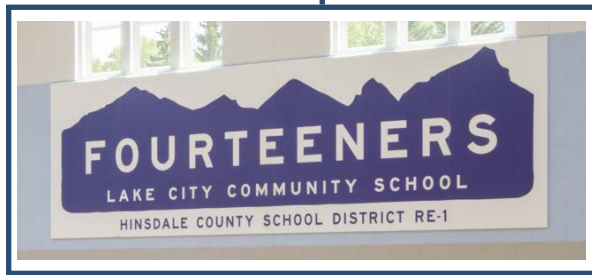
Interior materials and artwork were carefully selected to honor the breathtaking natural beauty of Lake City and Hinsdale County. Local beetle-kill pine lines the ceilings in the building's public areas including the entry and the Commons.

The simple and fresh white and blue color palette is found throughout the building. The design theme in the Commons is named "the waterfall", reflecting the four waterfalls in the area. It begins with and continues with the staggered flooring tiles in shades of blue, reminiscent of moving water, and illuminated blue panels recall falling water.



Interior Concepts Inspired by Natural Beauty

The stage's proscenium arch also features beetle-kill pine in the shape of the school's logo, the Fourteeners. Large murals from local photographers, selected through a community-wide competition, depict local landmarks such as the San Juan mountain range.



Safety and Security

Safety and security were one of the primary goals of the project identified during the planning process. One of the biggest safety improvements came with the addition of the Gymnasium and students no longer having to walk six blocks to the downtown armory. Heavy snow, traffic, and dangerous wildlife encounters were all significant safety issues overcome by having the Gymnasium on site.

The design flipped the elementary and secondary wings to also address safety concerns, primarily so that parents of elementary school students had a dedicated drop-off / pick-up area. Pre-K / Kindergarten classrooms, in particular, are located on the southeast side of the elementary wing adjacent to the main building entry vestibule allowing parents to drop off and/or check in their students without entering the rest of the building.

The administration area of the building was moved to be directly adjacent to the main building entry, with direct visual and physical control of the entry through the use of glass and electronically controlled door hardware. This control allows the second set of doors be locked so that visitors must check in with the receptionist prior to being allowed in the building or administration area. It was very important to the District and the Lake City community that the controlled vestibule be designed in a way so that the main entry maintains an inviting feel yet be secure. The Nurse's Clinic is also located within the administration area so that the receptionist can oversee this area when a nurse is not in the facility.

A new public address system was installed, with particular consideration for several deaf or hard-of-hearing students. It includes visual elements like message banners and prominent signage. Fire sprinklers were also installed with both visual and auidial mass notification.

Results of the Process and Project

A strong and vital community exists in Lake City, and the renovated school stands prominently on a corner of town coming in from the main road. This central spot is considered the 'front yard' of Lake City, and the new school offers a dynamic landmark.

The design also achieves several goals set forth in the District's 2020-2025 Strategic Plan:

- "By 2023, our facility will provide a safe, healthy, secure and energy efficient learning environment for all students, staff and stakeholders that effectively and efficiently utilizes all existing and potential resources.
- All students will be prepared to make an informed choice for higher education, technical training or to enter the work force upon graduation.
- Provide a hot lunch every day to students incorporating the federally funded hot lunch program for eligible students."

The students and staff of the Lake City Community School penned a large thank you note to the architects at the project's conclusion.



"(The architects have) taken the time to listen to and understand our community and school values and have managed to include those in their approach to designing our school. For instance, it is important to our stakeholders to take advantage of the beautiful surrounding mountains in Lake City and through the listening and design process they incorporated a clever access to the outdoors from our gymnasium."

- Rebecca Hall, Superintendent/Principal
Lake City Community School, Hinsdale County School District RE-1

Results of the Process and Project (contd.)

In August 2020, the community turned out to celebrate the brand-new facility with a with an elaborate ribbon-cutting ceremony including the laying of the cornerstone by the local Masons.



Before and After



Before and After



Sustainability and Wellness

In the planning process, the District noted extensive issues with the old facility's ventilation and energy efficiency, particularly high Co2 levels within the building and poor air circulation. Displacement ventilation was specified to reduce Co2 levels, reduce classroom noise as well as to provide improved occupant comfort and air flow. It has also provided a benefit regarding COVID-19 as air movement is directed upward and away from other building occupants reducing the recirculation of contaminants.

Sustainable design was also a priority for the addition and renovation. Classrooms were designed with prioritized access to daylighting. Spaces in the interior of the building feature solatubes to distribute daylight and reduce electricity use. The new Gymnasium is so well daylit in fact, that the electric lights are rarely needed during daytime hours. Photovoltaics were installed on the Gym roof to offset electrical demands. In fact, energy modeling of the project indicates that while the facility is now double its previous size, it will only require the amount of electricity used by the original facility.

