

Elwell Elementary School

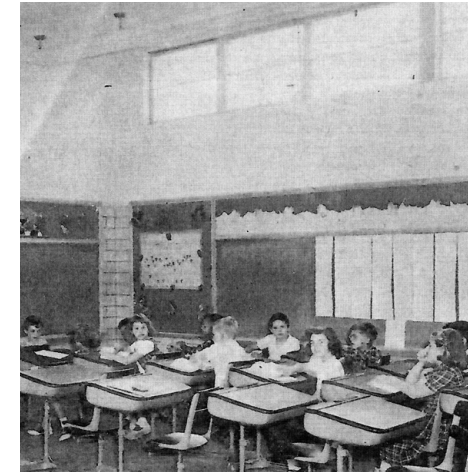
ASSOCIATION FOR LEARNING ENVIRONMENTS
PLANNING & DESIGN AWARDS



Executive Summary

Built in 1953, the existing Letford Elementary School was a beloved community staple in the town of Johnstown, Colorado. The original design featured airy, daylit classroom wings spaced apart around directly accessible outdoor areas. Over time, a series of additions filled in these spaces and resulted in a building that was predominately inward looking with many landlocked educational spaces. Aging systems and this restrictive configuration ultimately led the District towards the decision to build a replacement elementary school on an undeveloped 10-acre parcel elsewhere in town.

After completion of the new 75,000 SF school (renamed Elwell Elementary School), the existing elementary building would be demolished and turned over to the Town for use as a neighborhood park. The new school is a student-focused environment offering variety, choice, and flexibility in its design. The building—which resulted from a thoughtful, community-input process—manifests the District’s Innovative Guiding Principles and delivers a social learning experience, biophilic design strategies, connections to nature, and variously-scaled spaces that provoke moments of community throughout the building as it accommodates Project Based Learning.



Clockwise from top left: Architect's rendering of original Letford Elementary School, 1953; Bright and open classrooms at school opening, prior to subsequent additions; Rendering of new Elwell Elementary School



Scope of Work and Budget



BUILDING SIZE
75,000 SF



SITE SIZE
10 Acres



CAPACITY
648



GRADES SERVED
PK-5



CONSTRUCTION
COST
\$27.3
Million



DELIVERY
CMGC



OCCUPANCY
August
2022



CERTIFICATIONS
Targeting
CHPS

School & Community Engagement

Community

Weld 5 School District serves two small towns—Johnstown and Milliken—both small communities in Weld County, Colorado. The district operates three elementary schools, one middle school and one high school. Johnstown itself has a population of 17,000 people with a median household income of \$75,000.

Stakeholders

The project engaged a diverse group of stakeholders and utilized a hierarchy of involvement from three primary groups:

1. The Project Logistics Committee included core project champions empowered by the District to facilitate the project. This committee kept the Board of Education informed and monitored the integrity of the overall process (as well as scope, budget, and schedule), ensuring the right people were involved at the right times while shepherding the project through the design and construction process. This group met weekly throughout the duration of the project and was comprised of the District Superintendent, the Owner's Representative, the Architect, and the CM/GC.

2. The Project Advisory Group (PAG) set guiding principles, informed project organization, building form, and character, and served as project ambassadors. This group met weekly and was comprised of members of the Board of Education, the District Superintendent, the Owner's Representative, the Architect, the CM/GC, Administrators, Teachers, Parents, and Community Members. The PAG engaged in seven Planning Meetings with the Design Team over the course of as many weeks throughout schematic design.

3. Focus Groups were broken down into two categories. Educational Focus Groups provided specialized input related to educational delivery and included educators from each grade level, each specials department, interventionists, and special ed. Operational Focus Groups provided specialized input related to operations and maintenance. Focus groups were each engaged twice through design development.

GROUP 1



GROUP 2



GROUP 3



GROUP 4



GROUP 1



GROUP 2



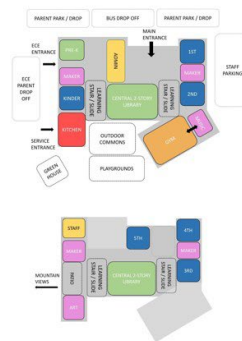
GROUP 3



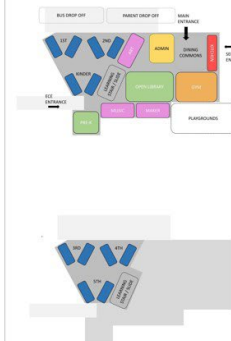
GROUP 4



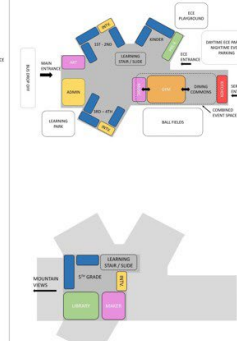
GROUP 1



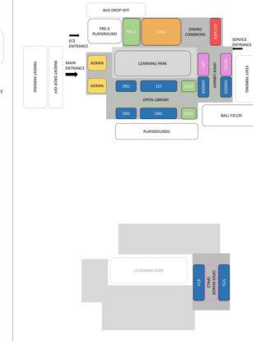
GROUP 2



GROUP 3



GROUP 4



Key Takeaways from the early PAG process:

- Dining commons and learning commons to be located at the heart of the school.
- Easily accessible, secured outdoor learning space to be included.

School & Community Engagement

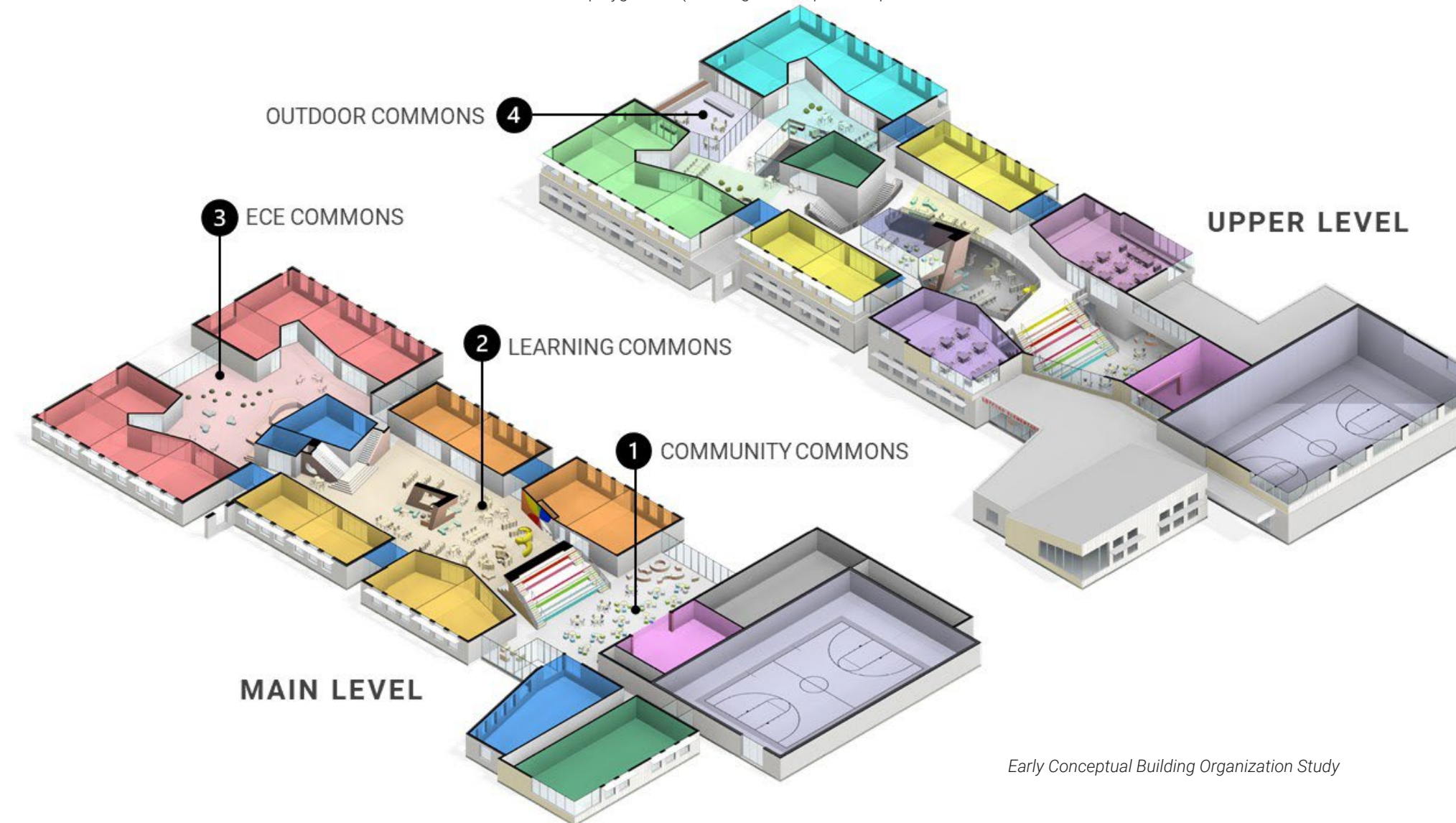
Early Conceptual Organization: Fostering Community, Choice, and Flexibility

Several main themes arose as the early conceptual building organization took shape. The concept is designed around the idea of having no hallways; rather, common areas dually serve as circulation and allow for social space. The conceptual plan identifies four prominent concepts:

1. Community Commons with Dining Area, Learning Stair, and Music Room 'Stage' are brought together to create a performance and after-hours community event venue.
2. Learning Commons serves as the hub of the academic area.
3. Early Childhood Commons opens to the early childhood playground. (As design develops, this space

later becomes the central cubby area allowing easy twice-daily pickup and dropoff, allowing parents to also meet and mingle.)

4. Protected Outdoor Commons (As design develops, this space is dramatically expanded to include direct access from each grade level within expansive secure area.)



School & Community Engagement

Challenges

Essential to realizing the District's six Innovative Guiding Principles (discussed in detail on the following page) was a program and design that would support Project-Based Learning (PBL) and engender the shift from a teacher-centric or "adult-focused" mindset to a learner-centric or "child-focused" mindset.

It was also important to the District that instruction should drive construction, not the other way around. The school was to be designed around the needs and desires of the school staff and community, instead of staff and students having to conform to a building that may not suit them well. The important role of the PAG was to define these characteristics so that the building design would serve the Johnstown community and their educational objectives.

In moving from early studies to the final design, the design team was tasked with maintaining the organization of community spaces as the backbone of the school while incorporating Small Learning Community (SLC) suites that would support the complete needs of each grade level - including a variety of learning spaces that accommodate a range of group sizes and learning modalities, as well as cubbies, staff work space and student and staff restrooms. The early PAG process also elicited direction from teaching staff that the team dream big in terms of outdoor learning space, and strive to layer a variety of secure, easily accessible outdoor areas into the design.

Value of the Process to the Project and Community

The result of this thoughtful, layered engagement process led to a customized, unique design solution that met the goals of the District and delivers education to students in a creative, vibrant environment.



Heat Map Charette Activity for Existing LES:

- Lack of flexibility and opportunities for collaboration and community.
- Lack of outdoor learning areas.



Design Parti:

- Small Learning Communities (SLCs) arranged around Community Commons and surrounded by easily accessible outdoor learning spaces.

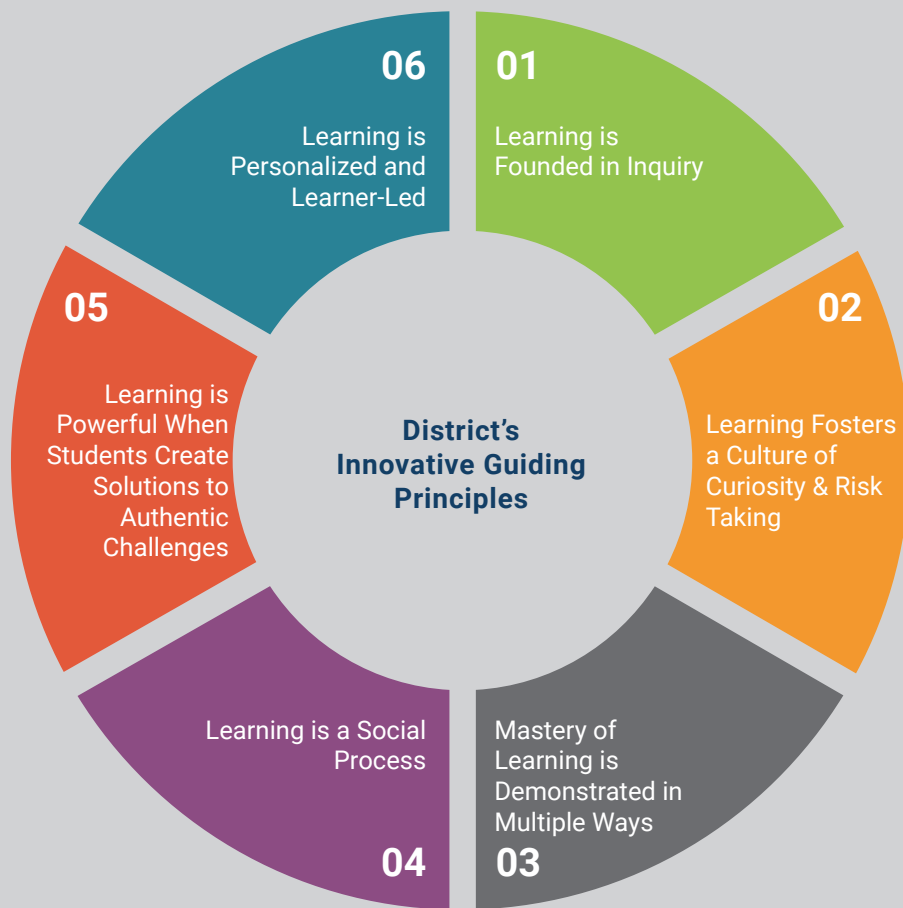
Rendering of entrance from the south



Educational Environment

Educational Vision

Elwell's project vision integrated District's Innovative Guiding Principles.



Supporting the Curriculum

As a means of implementing these six principles, the District shifted its educational delivery model to Project-Based Learning (PBL). PBL leverages active engagement in real-world and personally meaningful projects to educate the Learner. Elwell integrates the following characteristics embodying the District's **Innovation Guiding Principles** and the adoption of PBL:



When learning is **personalized and learner led**, students (rather than teachers) 'own' the learning environment. Because of this, a separate Teacher Collaboration Space is provided as a 'home base' for teachers. Equipped with individual workstations, a conference table, a restroom, a kitchenette, and an electronic work center, this space supports individual work, collaborative work, rest, and nourishment—all separate from the students' learning environment.



A **Teacher Collaboration Space** is provided at each grade level in lieu of a centralized 'Teacher's Lounge' or centralized 'Teacher Work Room.' However, several spaces in the proposed facility are sized to accommodate medium-sized and large-sized groups to facilitate collaboration among multiple grade levels and collaboration among all grade levels.



A ratio of 25 students per teacher was accommodated, and the facility organizes students by grade level. There are four groups of students per grade level ('4-track'). Because learning is a social process, students are grouped with teachers in **Small Learning Communities (SLC)**. An SLC involves 100 students and four (4) teachers in contrast to a traditional classroom where there are 25 students grouped with one (1) teacher.



Elwell contains a variety of indoor and outdoor learning settings to support individuals, pairs, small groups, medium groups, and large groups, and these spaces are shared. This **variety facilitates student agency and choice**.



Elwell is moderately open and highly transparent to **foster curiosity and community**. Visual connections into learning spaces make activity accessible and inspire connections with the work of peers.



The District currently offers half-day **pre-school** in the mornings and afternoons as well as full-day Kindergarten. Elwell is equipped to accommodate a full-day pre-school program in the future.

Educational Environment

Overall Building Organization

In the finalized design, at the heart of Elwell is the Community Commons, combining functions of Learning Stair, Dining Commons, and music stage in one, creating a versatile space that serves a variety of school and community gatherings. The Community Commons is accessed directly inside the entry and is immediately adjacent to the Admin area. The gym is accessible from the Commons.

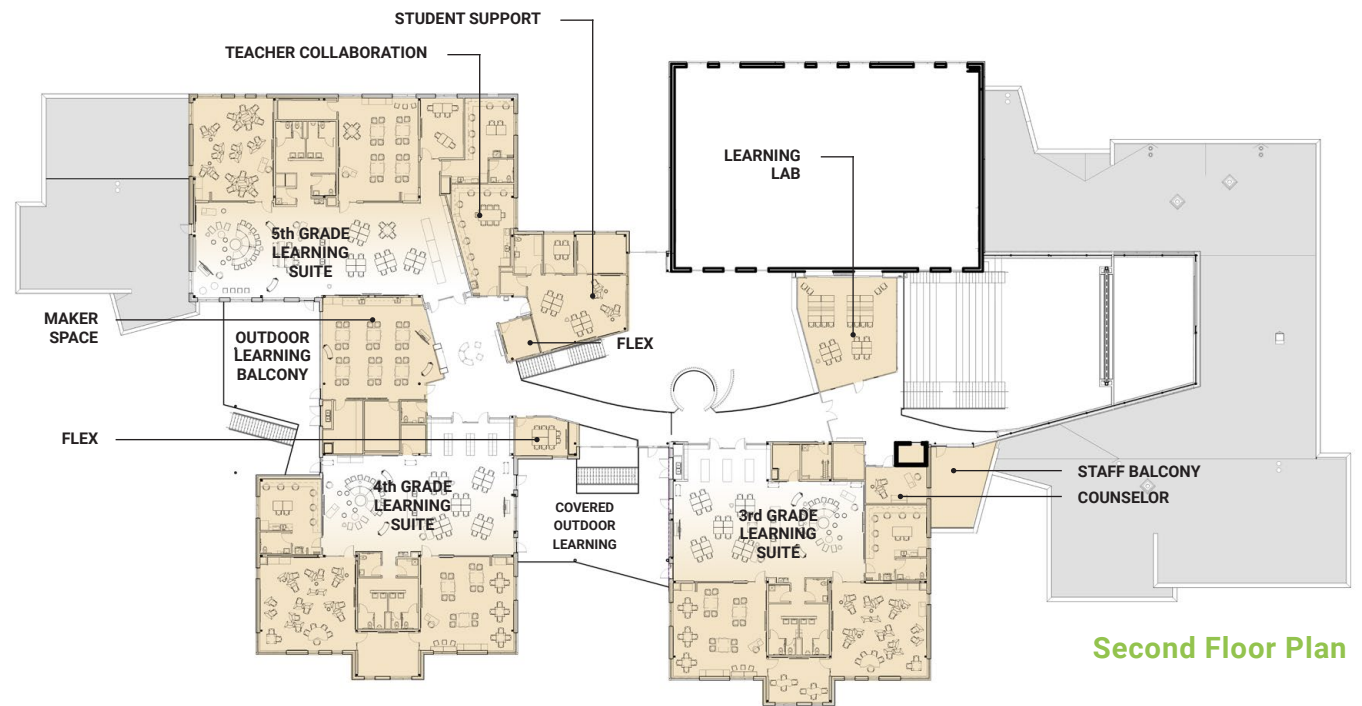
To the west, the Learning Commons is identifiable as a playful and inviting space surrounded by the school's academic communities. As one enters and moves through the building, there are numerous opportunities to experience the idea of 'community' within Elwell.

Organized to Support Variety of Learning/Teaching Styles

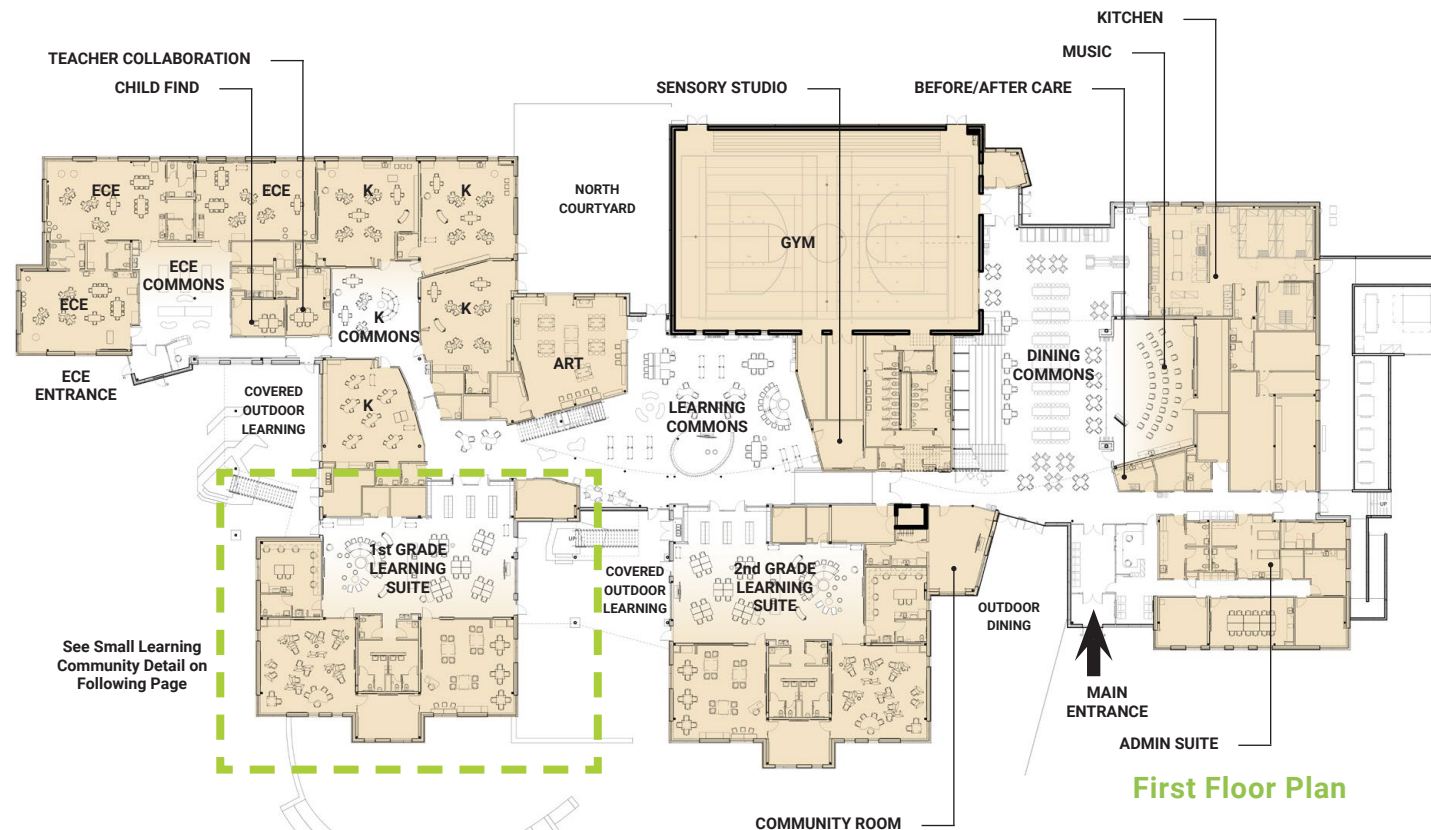
Within the building, grade-level Small Learning Communities (SLCs) surround a core of community spaces, with each individual SLC delivering student options and flexibility in a unique configuration. The PAG's vision of SLCs was articulated into arrangements of suites with outdoor classrooms in between and surrounded by secure learning terrace.

In keeping with the idea of arranging learning spaces around a commons, the gym moved to the north side of the building—directly accessible from the Dining Commons and also visible from the Learning Commons via large acoustical windows reinforcing the gymnasium as a large learning space integral to the school.

The ECE suite includes individual classrooms around a central cubby area with its own secure entrance. The Kindergarten suite also has its own central common space and individual classrooms—a progression between ECE and 1-5 suites. The North courtyard was designed for the art room and to serve as a cooler outdoor area during hot weather.



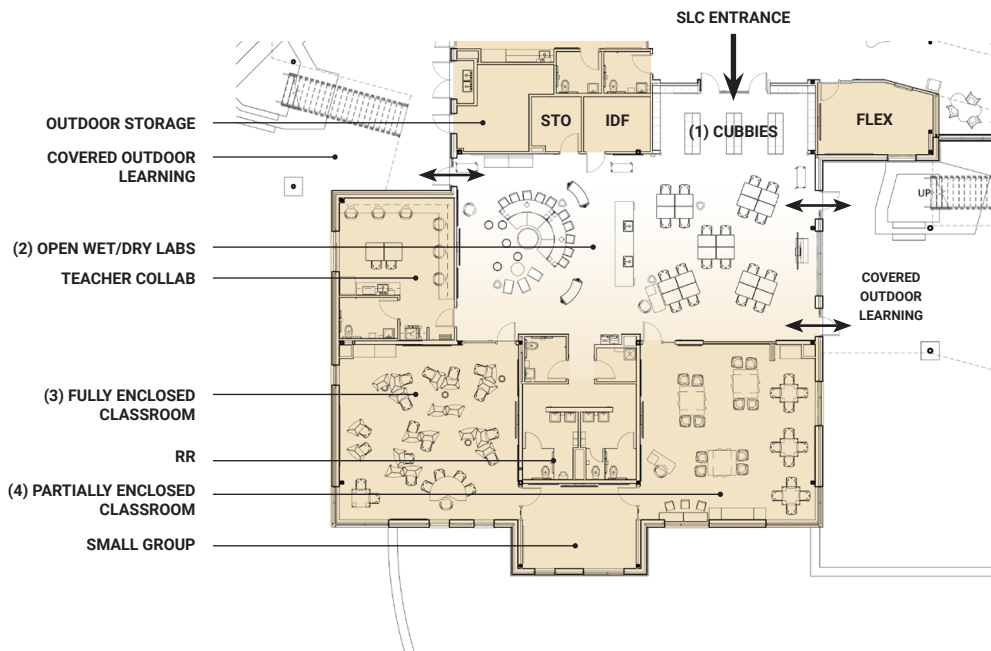
Second Floor Plan



First Floor Plan

Educational Environment

Each SLC includes four primary areas: (1) a space for student cubbies, (2) a wet/dry lab, (3) a fully enclosed classroom, and (4) a partially enclosed classroom. Every SLC has direct access to a secure, outdoor learning space and restrooms within the SLC. Elwell embraces the tenet that learning is a social process and, thus, small learning communities help to reinforce this principle.



Views within the Small Learning Communities

View within the Small Learning Communities



“The educator training process provided at Elwell School provides invaluable insight into the successful implementation of innovative teaching practices. A team teaching space was established at the existing Letford Elementary, where the library was opened up, exemplifying the commitment to collaborative learning. The extensive preparations undertaken by school administration to facilitate change within the school community demonstrate a proactive approach to embracing new methodologies and ensuring a smooth transition to the new school.”

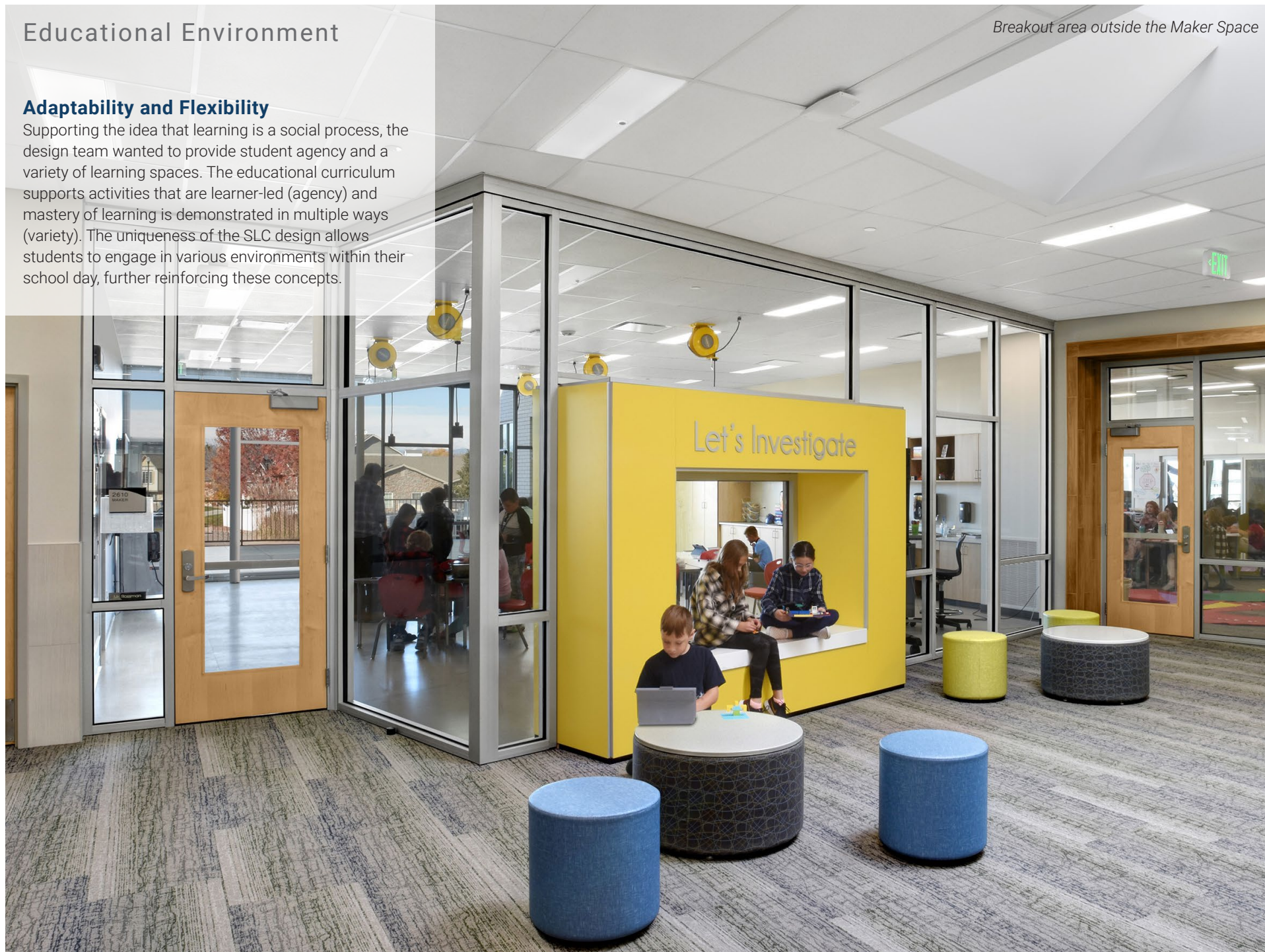
- Principal, Elwell Elementary School

Educational Environment

Adaptability and Flexibility

Supporting the idea that learning is a social process, the design team wanted to provide student agency and a variety of learning spaces. The educational curriculum supports activities that are learner-led (agency) and mastery of learning is demonstrated in multiple ways (variety). The uniqueness of the SLC design allows students to engage in various environments within their school day, further reinforcing these concepts.

Breakout area outside the Maker Space





“One of the most notable features of Elwell School is the absence of traditional hallways. Instead, the design revolves around the concept of the dining and learning commons, creating a vibrant hub that fosters interaction, collaboration, and a sense of community. This innovative approach reimagines the traditional school layout, promoting seamless transitions between learning areas and maximizing the effective use of space.”

- Principal, Elwell Elementary School



Dining Commons and Learning Stair



View from Learning Stair into the Dining Commons and Music Room



View from second floor into the Learning Commons and silo

Physical Environment

Materials and Textures

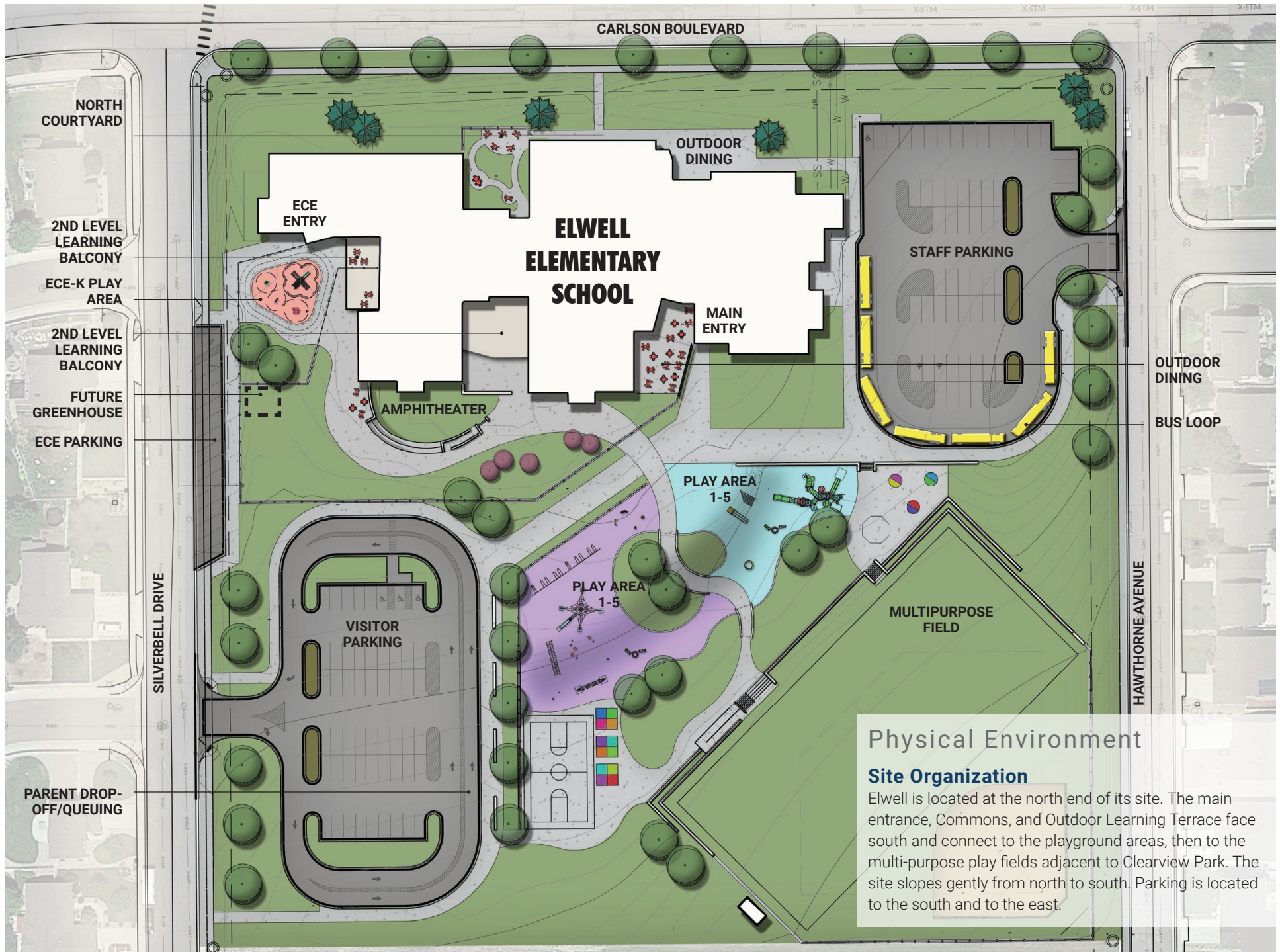
Elwell integrates biophilic design principles. The building exterior embraces a rustic modern palette, using a mixture of several materials to articulate the form of the building. Corrugated metal and wood-look fiber cement were explored for areas to receive siding. Wood flows inside the building, connecting the exterior with interior.

Details within Elwell all connect students to nature and bring the outdoors in, both concepts that drove the overall materiality and interior palette for the school. Natural materials such as polished concrete, wood and rubber, along with materials incorporating patterns found in nature (biomimicry), reinforce the concept throughout these restorative spaces. Accent colors include grassy greens, sky blues and sunshine yellows. Elements such as living walls and synthetic turf provide sensory experiences for students. Sustainability, maintenance and overall occupant safety also drove the material and product selections.



Reading nooks provide agency and choice for students in the Learning Commons





Physical Environment

Site Organization

Elwell is located at the north end of its site. The main entrance, Commons, and Outdoor Learning Terrace face south and connect to the playground areas, then to the multi-purpose play fields adjacent to Clearview Park. The site slopes gently from north to south. Parking is located to the south and to the east.

“The integration of directly accessible outdoor learning spaces at Elwell School demonstrates a commitment to holistic education and environmental consciousness. Despite budget constraints, the school has prioritized these areas, recognizing their long-term value and the immense benefits they offer to the educational journey. These outdoor spaces serve as extensions of the classrooms, offering students the opportunity to connect with nature, engage in hands-on learning experiences, and develop a deeper appreciation for the environment.”

- Principal, Elwell Elementary School

Physical Environment

Outdoor Learning & Play

The design includes a large outdoor space adjacent to the learning spaces on the south of the building. This multi-level Outdoor Learning Terrace includes plaza and planting areas allowing flexible use for outdoor learning. This space includes sunny and shaded areas, and can accommodate movable tables, chairs, screens, a chalkboard, an amphitheater/outdoor classroom, greenhouse, raised planters, and storage. Covered and sheltered areas extend the usable season and types of activities that can be brought outside. Outdoor sinks in weatherproof closets are used year-round without the need to winterize over Colorado's extended freezing season. Infrastructure is included for a future greenhouse. A smaller, secured outdoor learning space is nestled on the north side of the building to provide a variety of intimately scaled, shaded spaces for learning.

Additional grass fields are included for PE and athletics. Each playground has its own theme, and a large artificial turf playfield combines football, baseball, and running track, and invites a variety of school and community use. To the south, the outdoor space spills into Clearview Park.

Community Context

Elwell anchors Clearview Park, forming a playful backdrop at its high north end. The building was placed and scaled to be harmonious with the surrounding neighborhood, preserving views and openness. The Silo structure in the Learning Commons expresses a connection to the community's agricultural roots.

Inspiration/Motivation

Elwell's mascot is the Explorers. Students are encouraged to be curious, push boundaries, and solve problems. The school offers the community an innovative facility for educating future generations that will impact both their hometown and the world. The naming of Elwell celebrates Cora 'Elwell' Diley, a trailblazing female traveling minister who moved to the area in the 1880s. In the Community Room, a large graphic highlights significant events in local history, and is paired with a timeline highlighting great explorations from around the world.



ECE playground with West Balcony and SLCs in background.



Children playing in Amphitheater area of Learning Terrace with South Balcony and SLCs in background.

Sustainability & Wellness

From the beginning, Elwell was designed to pursue the Collaboration for High Performance Schools (CHPS) Verified Leader certification. Areas selected for emphasis included indoor air quality, daylighting and views, and an innovation credit for biophilic design.

Energy Efficiency—Envelope

Sustainable features of the exterior envelope include:

- Continuous exterior insulation and careful detailing to minimize heat loss where covered balconies meet building.
- Envelope commissioning.
- Energy efficient windows with visible light transmittance and solar heat gain coefficient optimized for orientation and space function.
- Deep overhangs at large south and west facing window-walls, and shading devices on all south and west facing punched openings.

Energy Efficiency—Lighting

Lighting strategies included:

- Lighting power density targets of:
 - Classrooms – 0.5 W/sf
 - Corridors – 0.4 W/sf
 - Offices – 0.4 W/sf
 - Back of house spaces – 40% lighting power density reduction
- Corridor lighting controls to reduce lighting power when unoccupied



ECE and Kindergarten Wing

Sustainability & Wellness

Low-Emitting Materials

All interior-applied paints, coatings, adhesives, sealants, flooring, walls, ceilings, insulation, and composite wood product selected towards meeting CHPS enhanced IAQ credits.. This reduces the health impacts of materials installed in the space by choosing materials shown to have limited to no negative off-gassing.

Biophilic Design

Elwell's biophilic design principles connect students within the building to the natural outdoor world through direct access to outdoor spaces, use of natural materials, selection of colors and textures, access to daylighting, and access to views. The interior color palette includes grassy greens, sunny yellows, and tranquil blues. Curving edges and forms in the Learning Commons, as well as in the Silo and Flooring material edges, all help to reinforce biophilia.

Daylighting and Views

Bringing natural light indoors positively impacts occupant mental health. Spaces include daylighting access and rooms equipped with daylight responsive electric lighting systems or strategic switching and occupant education plan. At least 70% of the floor area of classrooms, library reading rooms, and administration areas have direct access to outdoor views.



ECE Entry

“Elwell stands as a testament to innovative school design, transforming the learning environment and empowering students and educators to thrive. With its unique combination of features, Elwell School represents a remarkable achievement in creating an exceptional educational facility.”

- Principal, Elwell Elementary School

Physical Results of the Process & Project

Elwell Elementary School embodies the spirit of the A4LE National Planning and Design Awards, showcasing an innovative approach to school design and creating an environment that fosters excellence in education.

Elwell delivers a unique learning experience resulting from the District's goals, guiding principles, and an integrated design process with heavy stakeholder involvement and buy in. The facility's design encourages social connections, allows for flexibility and variety in its learning settings, promotes student agency and choice, and prioritizes a learner-led experience at the elementary level. Connections are made inside the building to the community's history, and the design process authentically engaged a diverse array of voices and perspectives.

“We are immensely proud of the elements that make Elwell School unique, and we are excited to share its story with others.”

- Principal, Elwell Elementary School



“In addition to the remarkable design, Elwell’s success can be attributed to the unwavering dedication and resilience of its staff and leadership. Transitioning into a new building with different learning spaces during a challenging year was undoubtedly a formidable task. However, the feedback and insights we have received from our team have been overwhelmingly positive. The staff commends the thoughtfulness of the design, emphasizing how it has positively impacted their teaching practices and the learning experiences of their students. Constructive thoughts and reflections have also been shared, highlighting opportunities for further growth and enhancement.”

- Principal, Elwell Elementary School