

LEARNING TOGETHER.



EASTBROOK MIDDLE SCHOOL

Many are aware that the shift towards globalization will require future generations to have advanced problem solving and creative skills in order to succeed, unfortunately the way we educate our children today is based on an approach that has remained relatively unchanged over the last hundred years. Under this model, learning tends to be a passive experience where students listen, but do not take an active approach in their education. This passive approach does not take in to account that the world has evolved as we have moved from the Industrial Age to the Information Age to the present day, an era that many refer to as the 'Conceptual Age.' The 21st century will require new curriculums and facilities that promote the problem solving, creativity and innovation skills essential for future generations to stay ahead of 21st century challenges. In order to design schools that foster these types of talents, the process we use to design schools and their programs also needs to change.

Eastbrook Middle School is an 800 student replacement school that will allow a new educational model to thrive in a 21st century learning environment. Having moved to Project Based Learning in an effort to address community needs and declining educational performance, the client desired a school that would accommodate the more collaborative and flexible spaces required by this new approach. The design responds to these needs by providing a variety of learning environments for different educational experiences and interactions, resulting in a school that is more relevant to the students of today.

SCOPE

The program consisted of a replacement middle school on a predetermined site adjacent to the existing Eastbrook Middle School. New facilities and fields for the Athletic program were masterplanned and will be part of future work as funding becomes available. In the interim, students will use the existing playfields and Gymnasium adjacent to the new school site.

As the Architect on the project, the firm was responsible for all facets of delivery, from Programming through Construction Administration. This process included three workshops with community stakeholders, administrators, teachers and students which heavily informed the design and resultant built work.

Project Name Eastbrook Middle School, Whitfield County Schools

Project Location Dalton, GA

Completion Date August, 2012

Budget \$18,000,000

Size 150,000 sf / 800 Students

Project Role Architects / Planners

Welcome to

Dalton



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The Dalton community is a reflection of the changing times. Known for many decades as a manufacturing town, Dalton is often referred to as the 'Carpet Capital of the World.' Recently however, shifting demographics and a decline in manufacturing jobs underscore a need for training the future workforce with 21st century skills. Administrators, teachers and community leaders see Project Based Learning as a way to address these needs.

As a result, Whitfield County Schools began an overhaul of its academic philosophy in 2009, recognizing Project Based Learning as a relevant educational model for the future. In this model, learning and teaching of 21st century skills becomes paramount to success, where a seamless integration of hands-on project work and technology form a foundation for deeper exploration. Students learn in real-world, relevant contexts that enable them to digest educational content in ways that go beyond textbooks and lectures. In essence, students learn by doing.

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Existing Eastbrook Middle School hallway

The design team began the project by trying to understand Project Based Learning first hand, as it was being implemented in the existing school. Hallways lined with student-drawn flags of Central and South American countries were supported by population statistics, historical anecdotes and current events. Drawings of major league baseball stadiums and the teams that populate them were supported by attendance figures, player batting averages and other baseball-related statistics. This is the essence of Project-Based Learning – taking culturally relevant themes to a largely Hispanic student population and teaching them art, history, government and math in that process.

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The spaces, however, did not support the model. Hands-on learning happened in crowded hallways or repurposed science labs. Access to the outdoors was limited at best. Not only did the faculty and students of Eastbrook need a new school to replace the decaying old one, they also needed a school that would support the type of education they were implementing.



Three programming workshops involving administrators, teachers, parents, students and community leaders were held at the school over the course of a few months. In these workshops, space for collaborative, project based learning became paramount to all involved, and diagrams generated by attendants always placed these spaces directly in the middle. The work done in these sessions generated the planning of the school through an iterative process that made the design better each time the stakeholders came together. As the design team understood more about Project Based Learning in successive meetings, the spaces became more relevant to the end users.



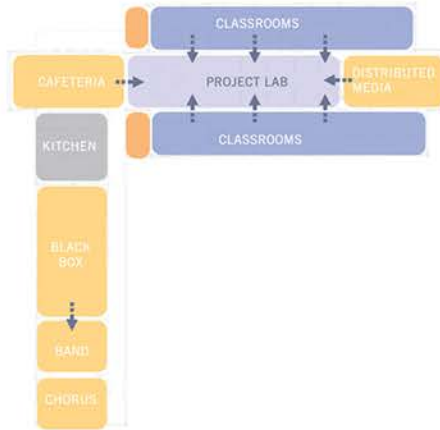
North

EXISTING MIDDLE SCHOOL

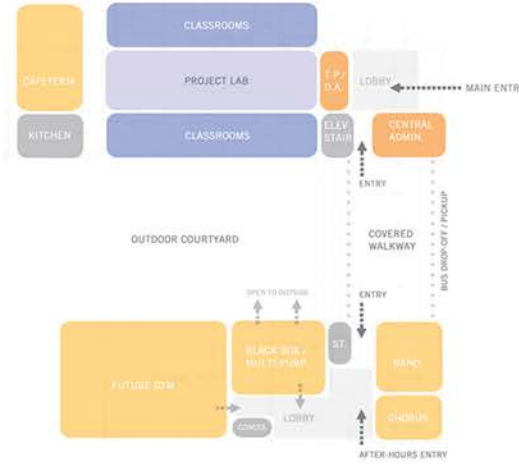
Eastbrook Road

PROJECT SITE

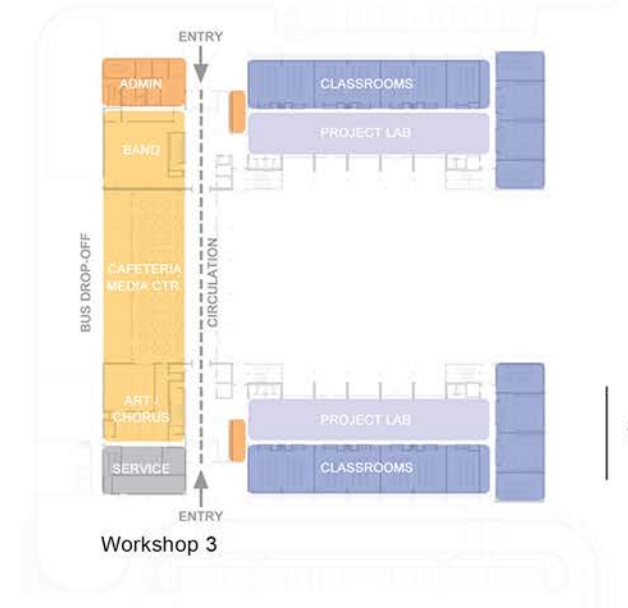
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Workshop 1



Workshop 2



Workshop 3

Conceptual Diagram Development



This new educational model requires new spaces to support collaborative learning. These spaces become the Project Labs that each Learning Community surrounds, remaining flexible for a variety of learning experiences and project types. Access to natural light and the ability to utilize the outdoors as yet another learning space drove the development of the diagram.

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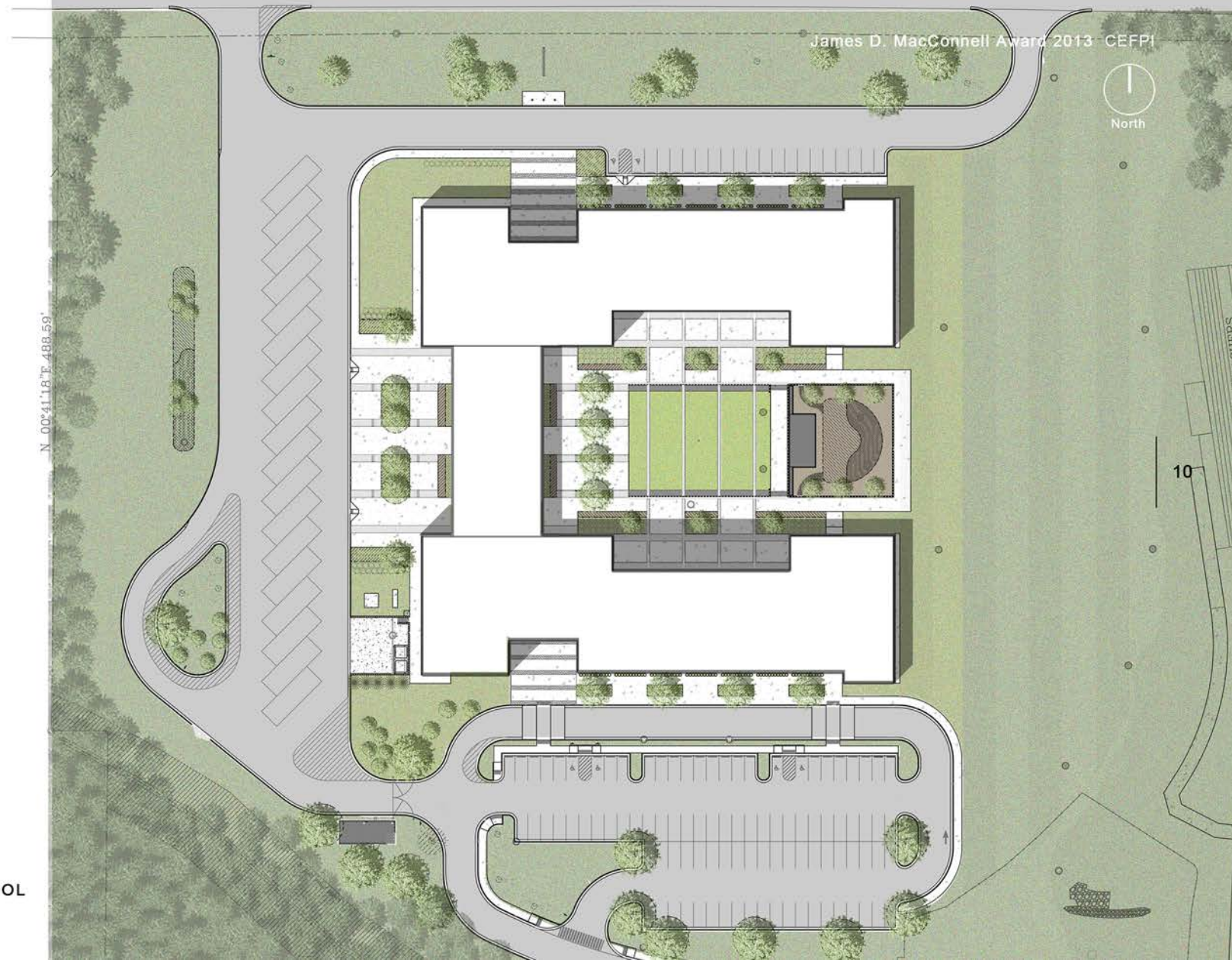
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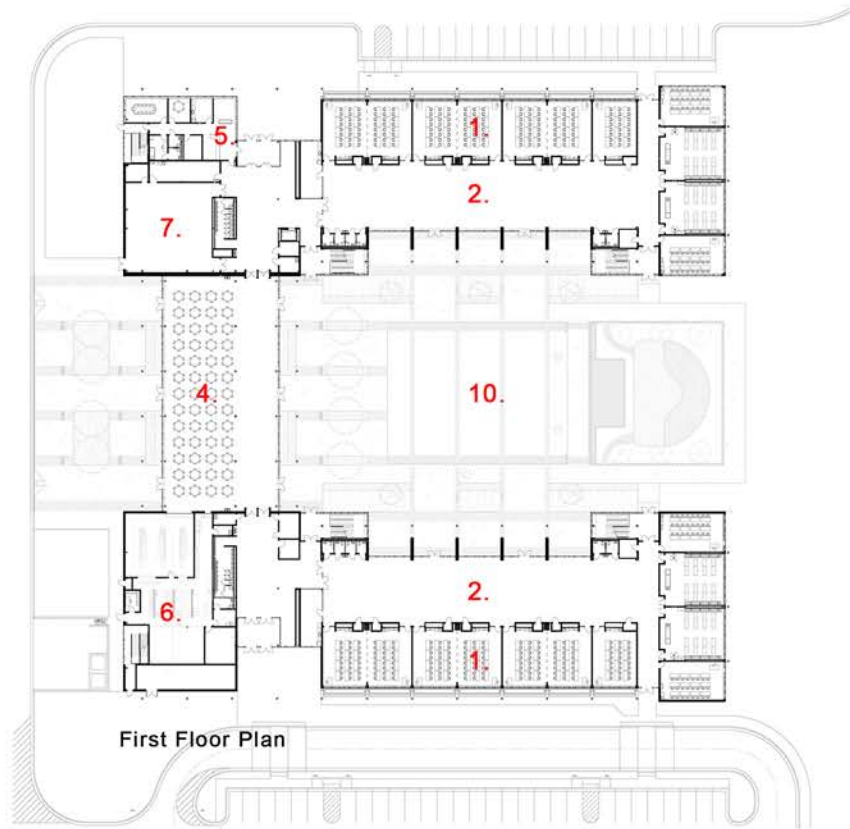


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EASTBROOK MIDDLE SCHOOL





First Floor Plan

KEY

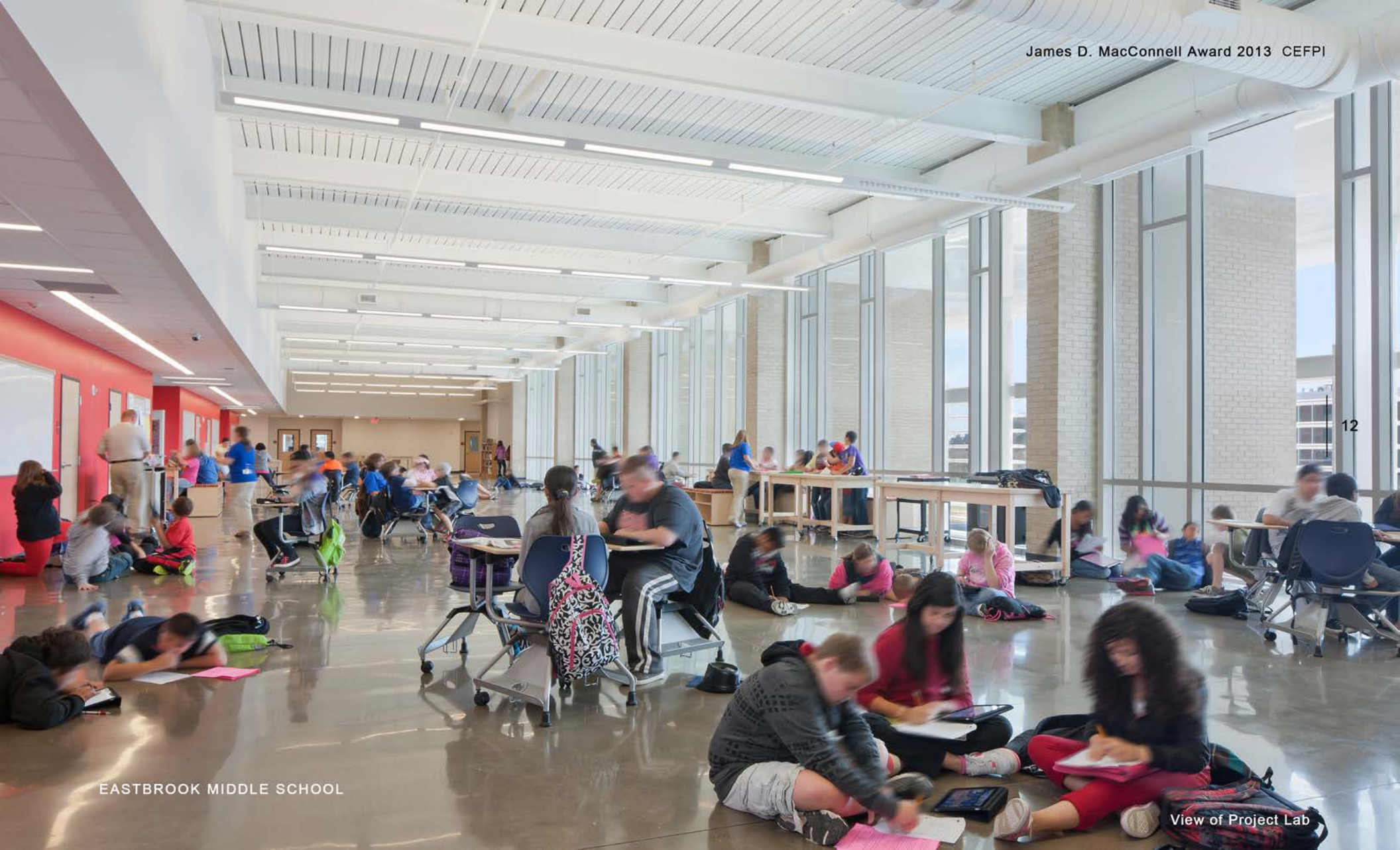
- | | |
|-------------------|-----------------------|
| 1. Classrooms | 6. Kitchen/Service |
| 2. Project Labs | 7. Band |
| 3. Media Center | 8. Art |
| 4. Dining | 9. Career Lab |
| 5. Administration | 10. Outdoor Courtyard |

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Second Floor Plan

The ultimate goal of the design is to provide a variety of learning environments that support Project Based Learning while allowing for flexibility both now and in the future. Collaborative, open project labs adjacent to more traditional classroom spaces for individualized teaching form the core academic wings of the school. Shared functions such as Band, Chorus and Art are organized adjacent to the two-story academic wings while surrounding the Dining space and Media Center that become the heart of the school. These spaces, along with the project labs, spill onto a centralized courtyard that allows for outdoor learning as well as a variety of school functions. This formal organization of the program not only allows a tremendous opportunity for indoor/outdoor activities, but also allows for every space to receive natural day-lighting without sacrificing functionality.



PROJECT LABS

Hands-on Project Based Learning is intended to happen predominantly in the project lab spaces within each of the four Smaller Learning Communities. These Communities not only break down the scale of the school, but also allow for more personalized delivery of education. Within the project labs, students can collaborate at a variety of scales, including team teaching, individual classes or smaller groups. The space is intentionally left open and flexible to allow for physical production and presentation of ideas as they pertain to certain lessons. Oriented towards the central courtyard of the school, the project labs receive an abundance of day lighting as well as access to the courtyard space itself.

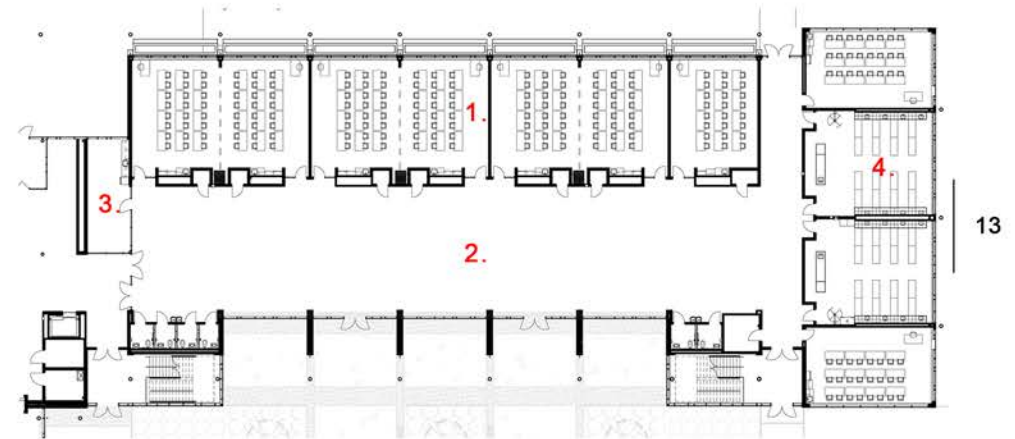
CLASSROOMS

The classrooms serve the school by allowing for more individualized learning to take place between students and teachers. These spaces develop the fundamental understanding of each project-based activity. Where students may need additional instruction for a project, the classroom is intended to provide for more traditional modes of learning or 'mining the gap' to better understand the lessons embedded within each project. Each Smaller Learning Community houses 9 traditional classrooms and 2 science labs. Additionally, classrooms have collapsible partitions that allow for team teaching and cross pollination of subject matter to support project based learning as well.

TEACHER PLANNING ROOMS

Each Smaller Learning Community also houses a large teacher planning area. These spaces, as in other schools, are necessary for the administrative functions pertaining to each community. In Project Based Learning, however, these spaces become even more critical by functioning as collaborative environments for teachers. Project Based Learning requires a tremendous amount of creativity and 'deep diving' on their part, devising projects that are engaging while embedding core academic lesson standards across multiple subjects.

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Typical Learning Community (4)

KEY

1. Classrooms
2. Project Lab
3. Teacher Planning Room
4. Science Lab



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Operable partitions allow for team teaching



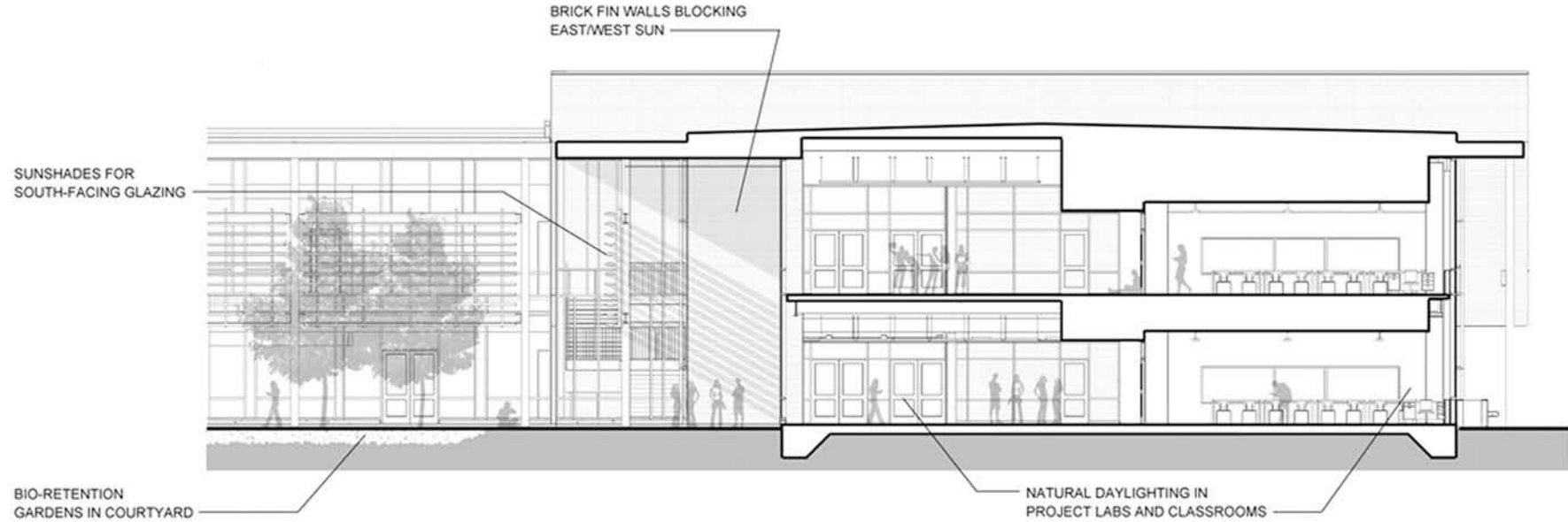
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View of Media Center hallway



View of Media Center

Each two-story academic wing feeds into the shared functions of the school. The Cafeteria and Media Center are located in the central part of the diagram, allowing for quick access from all parts of the school while also enabling after hours utilization for community and group activities. Other shared functions such as Art, Band and Chorus are located adjacent to the Cafeteria/Media Center, augmenting the core academic communities. These areas also contain ample space for project based learning, as the performing arts often play a pivotal role in many projects, while doubling as display areas for student work.



Developing the physical environment of the school begins with the diagram/section. After several iterations of how to best utilize the project lab spaces, bringing natural daylight to those spaces became the primary driver of the layout. The resultant transparency and clarity of organization are what fundamentally informs the experiential quality of the school, with the primary spaces for project based learning taking center stage.



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View of Media Center Hallway



With a courtyard configuration, the scale and transparency of space is brought to a human level while accommodating the sheer volume of 800 students. This outdoor space creates an immediate sense of community while allowing for educational opportunities and social interaction. It is the heart of the school in many ways.

A constant visual connection to the courtyard allows one to perceive the entirety of the school while also providing passive security for staff and administration. In an era where school security has become paramount and often reliant on technology, the diagram suggests that planning can play an important role as well.



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The school site is situated within a rural landscape, challenging the design team to respond with a building that is as simple and functional as the factories and barns it shares that landscape with. While modern in its aesthetic, the school has a 'truthfulness' to the programmatic purpose and a response to the environment that is immediately perceivable.

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In essence, this is a school that is designed for collaboration and hands-on learning – a 21st century school. The idea of transparency is both literal and figurative as it informs the physical and experiential throughout the school. An open exchange of ideas through education is the desired outcome, with the school providing the environment within which this happens.

This is learning together.

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