

2013 Exhibition of School Planning and Architecture

Montour School District New Elementary School

Pittsburgh, PA

Montour School District New Elementary School



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Amphitheater

Community Environment: The New Elementary School is designed to hold large assembly groups in the full-size court multi-purpose gymnasium and within the centrally located, open space cafeteria; it is the District's intent for these spaces to be enjoyed by the community during programmed events. Another feature of the New Elementary School is the technologically advanced media center, which is designed with an adjacent outdoor amphitheatre. This amphitheatre will also feature programmed events and activities available to the community. The new school building is designed to provide easy pedestrian access to the existing High School and the adjacent practice fields. Additional components of the New Elementary School include outdoor instructional play areas and an accessible academic "tree-house" for outdoor learning opportunities. Included within the new school building are STEAM classrooms for the early integration of science, technology, engineering, arts, and math into the elementary grade levels. The District has recently engaged in conversations with a local university to integrate some aspects of one of its technology programs into the STEAM program in order to provide an exciting hands-on learning experience for the elementary students.



Rear Site Plan

Community Environment: The site is centrally located within the District. The District had recently renovated the High School in order to address deteriorated physical conditions and to accommodate the projected curriculum planning. Despite these improvements, it was evident that the High School did not provide visitors entering the site with a facet of the school building that characterized the District's commitment to academic excellence; the main entrance nor academic components of the High School were not visible upon entering the site, nor were they visible to spectators sitting in the bleachers. The placement of the New Elementary School on the site provides an excellent opportunity to showcase the District's academic commitments; the building will be highly visible to entrants to the site and stadium spectators. Furthermore, the development of the new building and its site will enable the District to more fully utilize the entire site to its potential by creating better accessibility for parking, vehicular circulation, campus practice fields, site security, and a secondary road for emergency egress.



Learning Spaces

Learning Environment: Montour School District maintains a tradition of providing students with a superior educational experience. Students are consistently recognized for their academic, musical, artistic, and athletic achievements, and the District's curriculum and programs continue to ensure that students receive the academic and social challenges necessary to succeed. The District believes that students who are engaged in real world applications simply learn better; supporting this belief, the District's goal is to create dynamic, engaging, student-centered classrooms and instructional spaces that integrate technology and promote higher order thinking skills to achieve exemplary student performance. The District's instructional methodology is characterized by its "Launch, Explore, Summarize" approach. The teacher's role in the classroom begins with an intense focus that "launches" what the students should be able to do once concluding the lesson. Following is the directed "exploration" that is stimulated by teacher/ student and student/ student questions, discussions, and activities; this "exploration" will evolve throughout the various grade levels. Through observations and feedback to assess performance, the teacher "summarizes" and highlights what should have been learned. A significant commitment of the District has also been its integration of the STEAM education program at the Middle School levels for Grades 5 through 8; the District is now committed to providing the STEAM program for the integration of science, technology, engineering, arts and math at the Elementary School levels. The earlier introduction of this integrated learning shall be intended to academically stimulate the students for higher order thinking skills and better prepare them for continued success through all grade levels.



Learning Environment: *Continued* In order to accomplish the School District's goals for its curriculum, programs, and instructional methodology, the design of the New Elementary Center for Grades Pre-K through 4 provides clustering or "houses" for each of the various grades. Beyond Kindergarten, each grade "house" provides flexibility for small group and large group collaborative learning. These collaborative learning spaces support a variety of teacher/ student and student/ student educational activities. There are small breakout rooms within the classrooms for smaller group and individualized learning; additionally, classrooms are provided with transparent walls that create a stimulating learning environment and that can also open up to support larger group learning activities. Centralized within the grade "houses," there are flexible instructional spaces with advanced technologies in which the STEAM educational programs are offered. These STEAM classrooms can support a variety of learning activities and are also provided with transparent walls that can be fully opened in order to accommodate various class sizes. Wireless technology and interactive white boards are provided throughout the building in order to support the "learning anytime and anywhere" philosophy. Due to the classroom wall transparency and the operational capabilities for these walls to open, the school building will also be able to support potential future changes in the educational delivery systems.



Outdoor Learning Classroom

Physical Environment: The design organizes the building into grade level groupings; this design accommodates all of the District's elementary school students in one building and provides a sense of community clustering. The classrooms, special education classrooms, faculty planning rooms, and large and small group collaborative rooms are designed with the appropriate quantity, size and accommodations. The Pre-K and Kindergarten classrooms are organized together in close proximity to a "Learning Gallery." The overall layout of the building is compact; the circulation spaces are efficiently located and configured to allow an efficient flow of public event access throughout the building. Academic wings shall be stacked and maintain a separate flow and secured access. Material selections shall be made to stimulate the learning environment and to provide ease of maintenance and durability. The exterior masonry, interior painted masonry, wall tile, and sheet flooring are selected to easily maintain a high quality finish. Additionally, the classroom interiors will have painted CMU wall finish and will include modular carpet tile for ease of replacement where required. The cafeteria will be clad with solid phenolic panels to protect the wall surfaces from high traffic impact, with quarry tile and sheet flooring solutions for ease of maintenance. Toilet rooms shall be clad with ceramic tile walls and floors for a long lasting and easy to maintain finish. The selection of building materials includes a high recycled content.



Outdoor Learning Classroom

Physical Environment - The building design supports the intended programming and shall inspire the community and its students with its innovative characteristics and commitment to enhanced learning. In order to anticipate future changes to the educational programming, the building design is configured to accommodate potential additions of instructional spaces that will further enhance the educational environment of the building, without altering the planned design concept and goals.



Media Center

Planning Process: The planning process for the New Elementary School for Montour School District was a deliberate and collaborative process that commenced with a District-wide Facility Study that evaluated the 3 existing elementary schools and the Middle School. After several months of assessing the physical conditions of the existing buildings, the projected enrollment and capacity of each, the adequacy of each building to support the curriculum goals, the estimated costs of various options for facilities improvements, and the projected operational costs of each option, the School District decided it was in its best interest to consolidate the elementary program for all students in Grades Pre-K through 4 into a new school building, with the intention of retiring the existing buildings once the new building was constructed and occupied. The planning process led by our architectural firm included a committee of the Superintendent of Schools, Assistant Superintendent, Director of Elementary Curriculum, Director of Special Education and Pupil Services, Director of Facilities, various representatives of the School Board, and our firm's consultants for engineering, specialties, and technologies. Over a 9 to 10 month process, the Facility Study evolved into a specific planning, programming, and design phase for the selected option; the organized process involved weekly planning meetings with the committee and included presentations to the School Board and community.

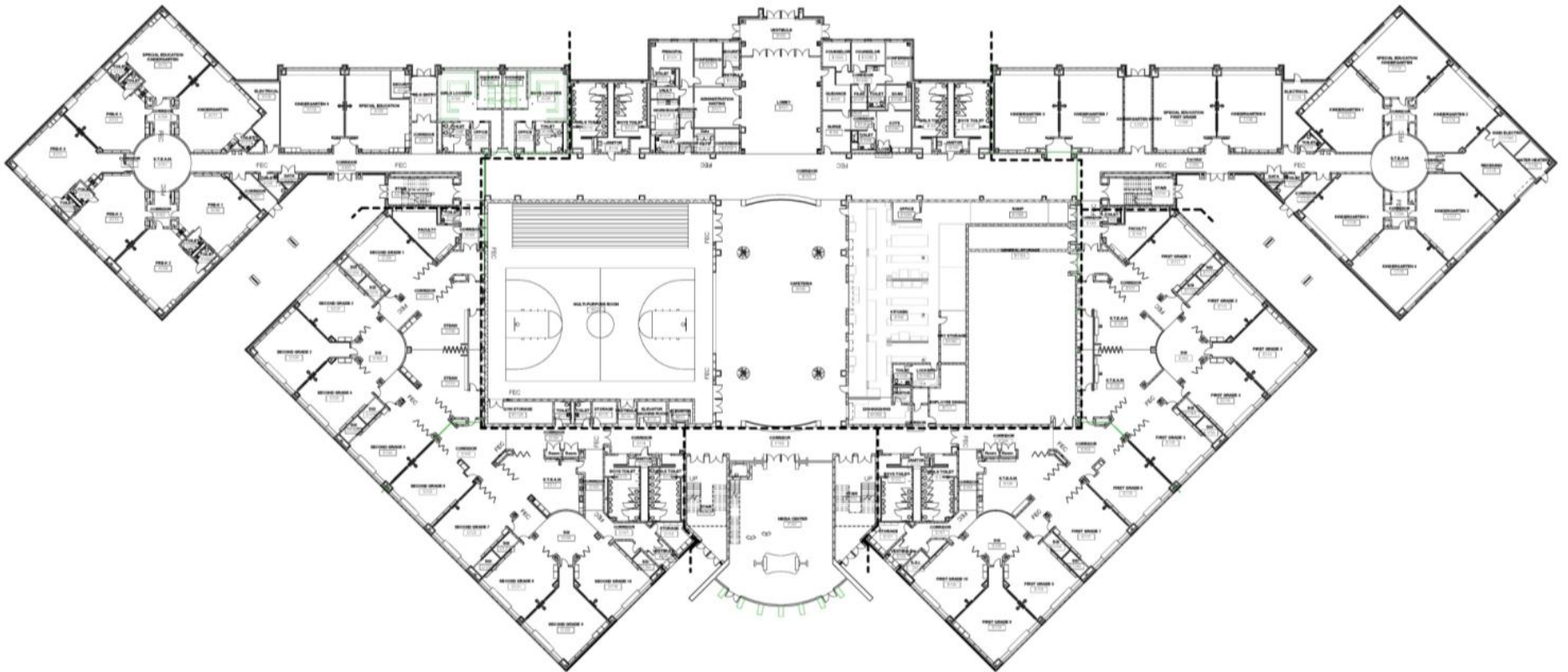


Media Center

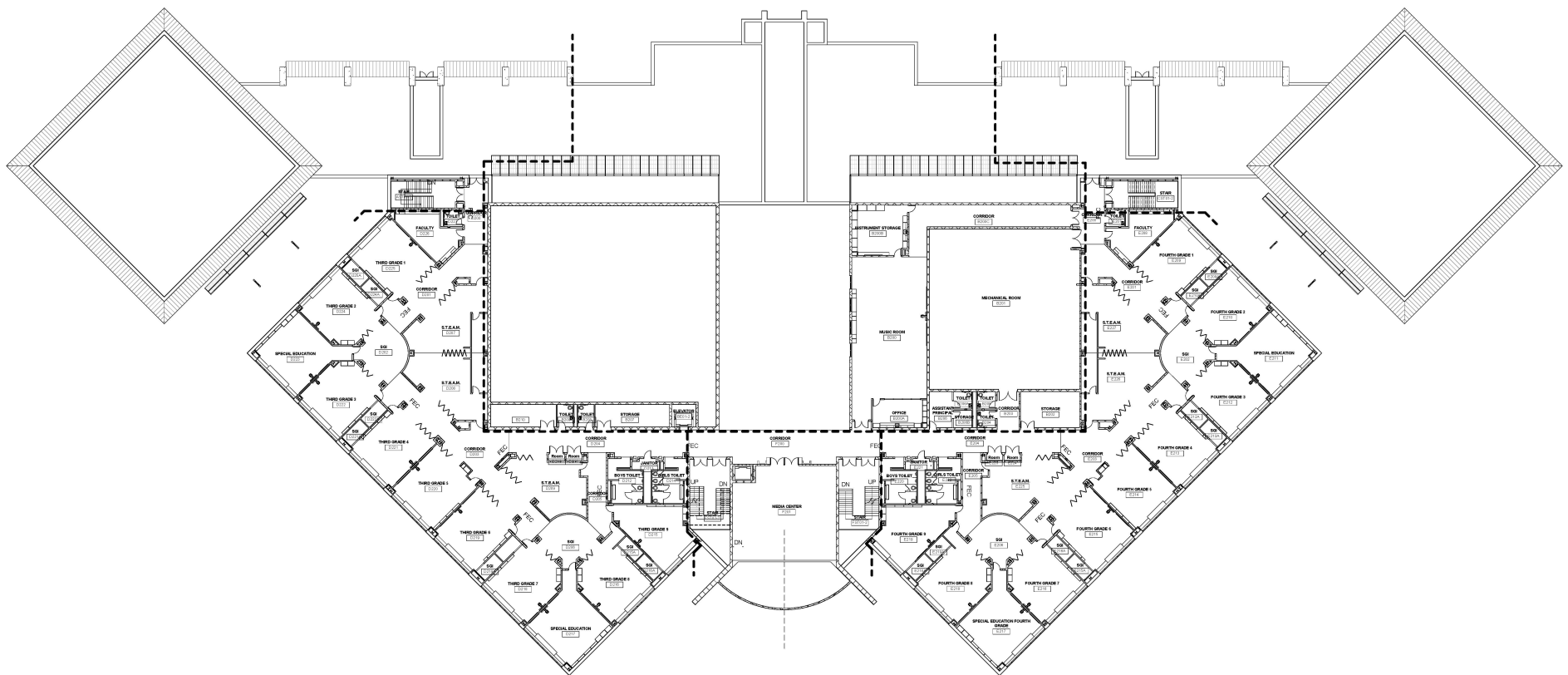
Planning Process Continued: The design phase has proceeded successfully and will culminate into a series of community engaged meetings that will assure consensus with the goals of the District and community before proceeding into construction documents. The planning process was viewed by the District as a priority facet of the project; the weekly meetings were regularly scheduled and consistently attended. The planning process successfully achieved a design that creates grade “houses” for each grade level; instructional spaces that are organized with flexibility to integrate large and small group collaborative learning capabilities; STEAM classrooms that are centralized within the grade “houses” to stimulate the early integration of science, technology, engineering, art, and math for the elementary levels; indoor and outdoor instructional play areas; an advanced technology system integrated seamlessly into each instructional space; a partial green roof for outdoor learning activities; green building elements that lead the community in a commitment to renewable resources and energy conservation; and a mechanical system that utilizes an ice storage system for reduced cooling costs. The planning process will result in a building design that creates an overall District-wide Elementary School that replaces the 3 existing elementary schools with a new facility intended to meet the goals of the School District to provide its elementary students with an enhanced learning environment that thoroughly prepares its students to succeed in the subsequent grade levels and throughout life.



1st Floor plan



2nd Floor plan



Exhibition of School Planning and Architecture

Project Data

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| Submitting Firm : | Architectural Innovations, LLC |
| Project Role | Architect of Record |
| Project Contact | Ms. Jan Brimmeier |
| Title | President/Owner |
| Address | 1003 McKnight Park Drive |
| City, State or Province, Country | Pittsburgh PA 15237 |
| Phone | 412-364-4966 |

| | |
|----------------------------------|-----|
| Joint Partner Firm: | |
| Project Role | N/A |
| Project Contact | |
| Title | |
| Address | |
| City, State or Province, Country | |
| Phone | |

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|----------------------------------|---------------------------------------|
| Other Firm: | |
| Project Role | Construction Manager not yet selected |
| Project Contact | TBA |
| Title | TBA |
| Address | TBA |
| City, State or Province, Country | TBA |
| Phone | TBA |

| | |
|----------------------------------|---------------------------------------|
| Construction Firm: | |
| Project Role | TBA – Project has not gone out to bid |
| Project Contact | |
| Title | |
| Address | |
| City, State or Province, Country | |
| Phone | |

Exhibition of School Planning and Architecture

Project Details

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| Project Name | Montour Elementary School |
| City | McKees Rocks |
| State | Pennsylvania |
| District Name | Montour School District |
| Supt/President | Dr. Donald Boyer |
| Occupancy Date | Summer 2016 |
| Grades Housed | Pre K-4 |
| | |
| Capacity(Students) | 1120 students , 80 staff |
| Site Size (acres) | 105 Acres - facility being built on High School Campus |
| Gross Area (sq. ft.) | 165,000 |
| Per Occupant(pupil) | N/A |
| gross/net please indicate | N/A |
| | |
| Design and Build? | |
| If yes, Total Cost: | |
| Includes: | |
| | |
| If no, | |
| Site Development: | TBA |
| Building Construction: | TBA |
| Fixed Equipment: | TBA |
| Other: | TBA |
| | |
| Total: | TBA |

Exterior Rear View w/ Treehouse Classroom



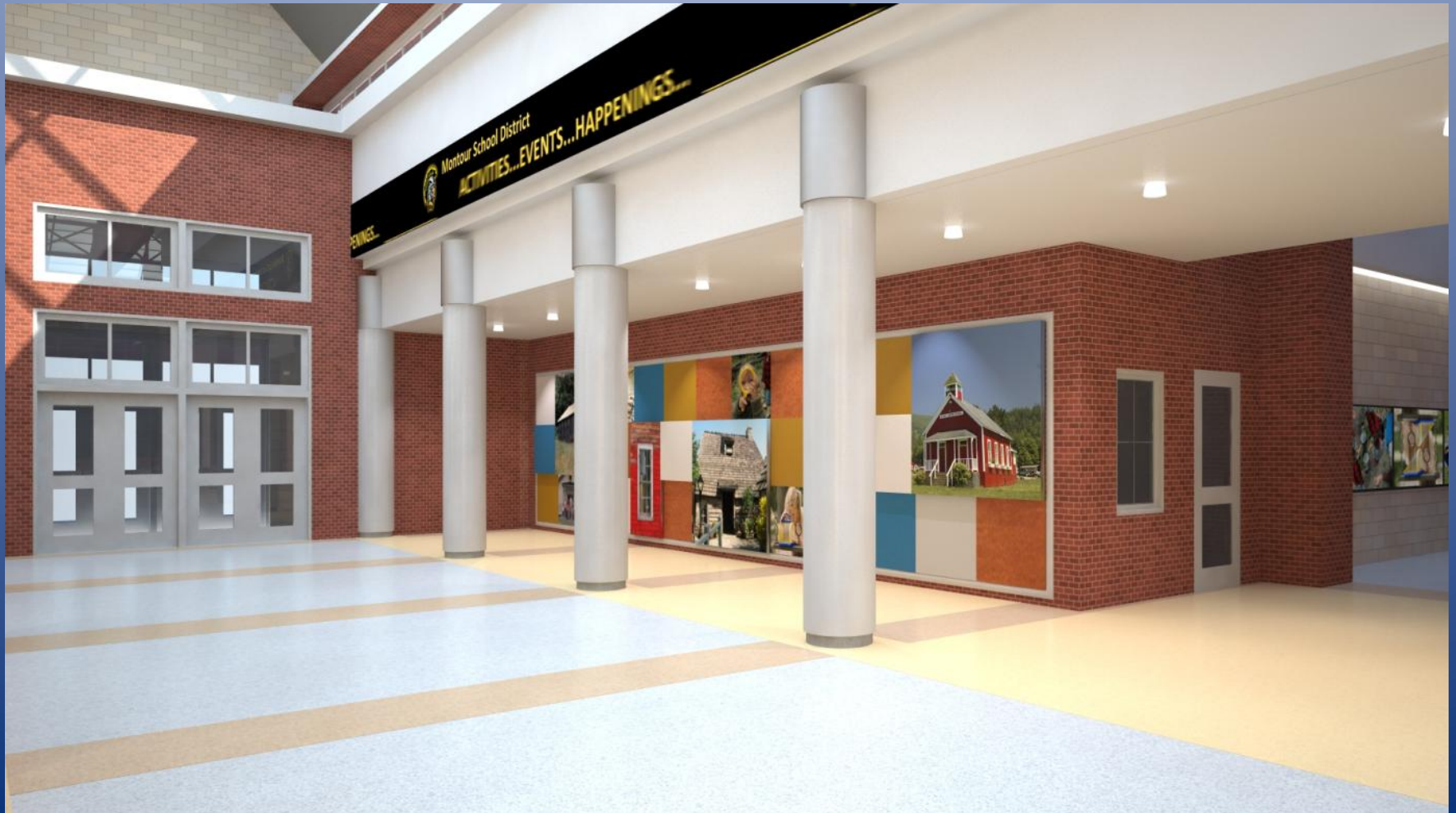
Exterior Amphitheater / Media Center Exterior Space



Exterior View from Treehouse Classroom



Interior Circulation Space



Cafeteria Space

