

2013 CEFPI Exhibition of School Planning and Architecture

Penn Hills High School

309 Collins Drive, Pittsburgh, PA
15235

High School

Penn Hills High School



Penn Hills High School



Main Entrance – “Beacon on the Hill”

Satisfying the District’s request for a technologically advanced, academic “beacon on the hill”, visible to surrounding neighborhoods, the design provides a focused, community learning environment. The District leadership and community members represented by the board envisioned a technology driven design that would equip students and teachers alike for instructional delivery and multiple educational styles and methods. innovative systems and solutions.



Academic Gallery Spaces

Instructional spaces in the existing high school were inadequately sized, did not offer resources for large and small group instruction and insufficiently served special needs students. The flexibility of instructional and academic gallery spaces in the new High School addresses all academic needs. The district contended with declining retention rates of students migrating to cyber/charter schools. The new High School design is expected to reverse this trend by offering a pleasant educational environment with computer connectivity of fiber optics, cabling and wireless throughout the building.



Lower Level Media Center

The design provides an exciting environment for 21st century learning and preparation for post-secondary education, training, and the workforce. Organized by academic departmentalization, function and efficiency, core curriculum classrooms and labs include audio/visual equipment and learning tools to enhance teachers' instructional delivery and flexibility for individual and team learning. Integrating flexible instructional spaces, advanced technologies and opportunities for community outreach learning, the High School enhances education and provides a center for community excellence in academics, arts, athletics and technologies for future generations and life-long learners.



Typical Classroom

Knowing the importance of natural lighting and the positive effect it can have on learning, the design provides windows and skylights to enhance the natural lighting in instructional spaces. The library and art classrooms utilize a curtain wall system with solar tinted glass for natural light. Mechanical systems satisfy seasonal demands with highest efficiency; ice harvesting provides innovative energy savings for cooling, and efficient boilers supply hot water to variable air volume boxes for multiple heating solutions. Operating costs are estimated to be far below inefficiencies of the former building.



Mechanical Room

The building's mechanical systems are centralized at the core reducing ductwork and piping runs. Through viewing "windows" looking into the mechanical room students can see the mechanical system with color coded piping to educate students about how the buildings mechanical systems function, in addition the flat panel displays located in the main entrance also indicate energy usage to students in real time. Locally provided building materials are utilized, including ground face block for corridor walls, reducing maintenance. Porcelain, ceramic and carpet tiles are chosen with recycled content. Utilizing renewable resources, linoleum and bamboo materials are used in the design. Ceilings with high recycled content contribute to a quieter indoor environment. The exterior design, coupled with skylights and interior clearstory windows allows for daylight penetration to the interior.



Academic Circulation

We integrated a concept called “Biomimicry”, characterized by our use of several inspirations from nature to develop building form, structure, symmetry, function, and technology. The instructional spaces are organized by function, efficiency, and relationship to the curriculum. Through a deliberate series of interactive meetings with the School Board, administration, faculty and staff, the design process included a significant planning and programming phase. We prepared a comprehensive feasibility study and educational specifications to achieve community consensus for an efficient building solution that creates an enhanced learning environment for the students, integrates green building design features, reduces general building operating costs, provides an opportunity to recapture the cyber students, and constructs a new facility without increasing local taxes.

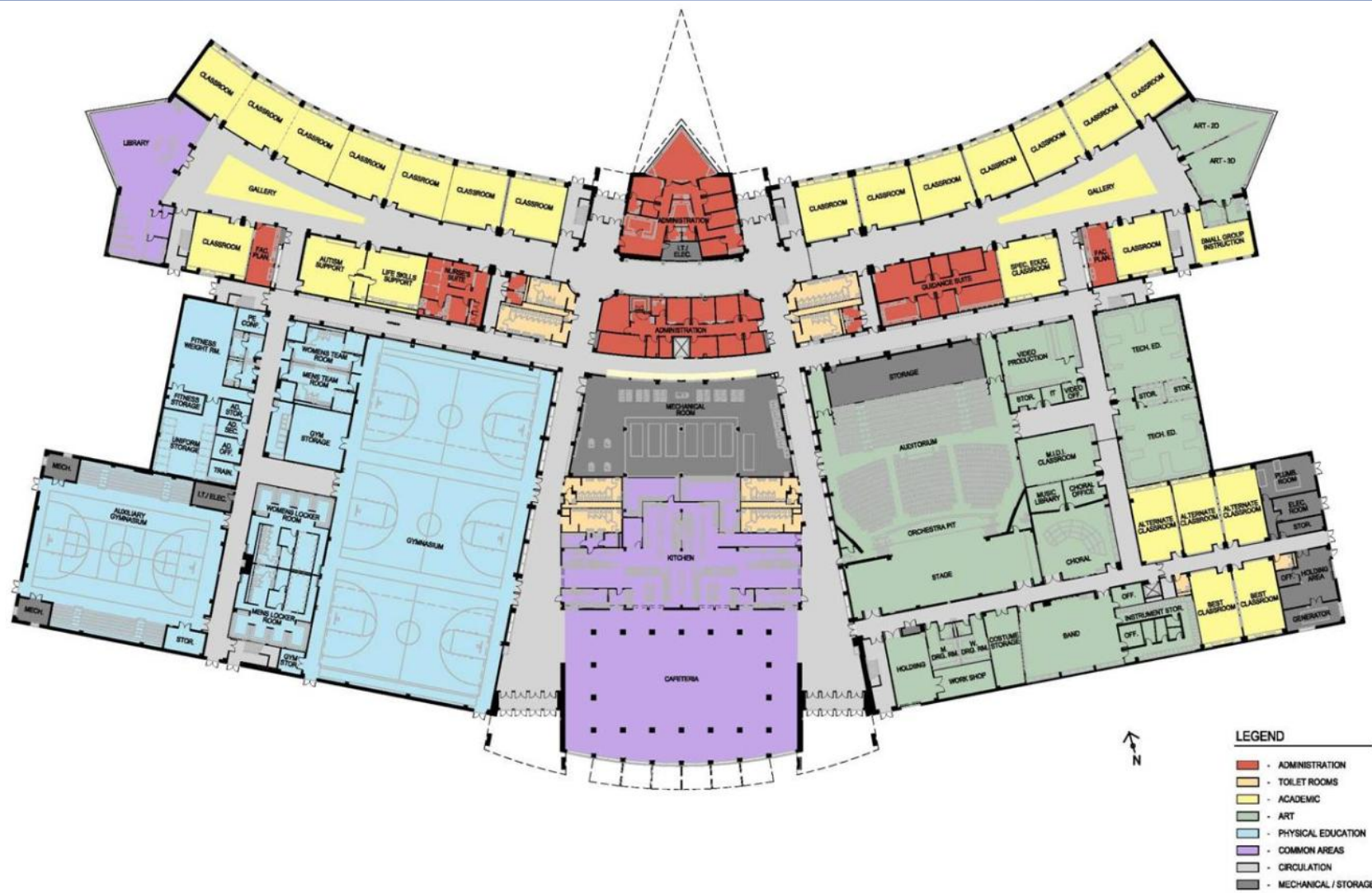


Arts and Athletics

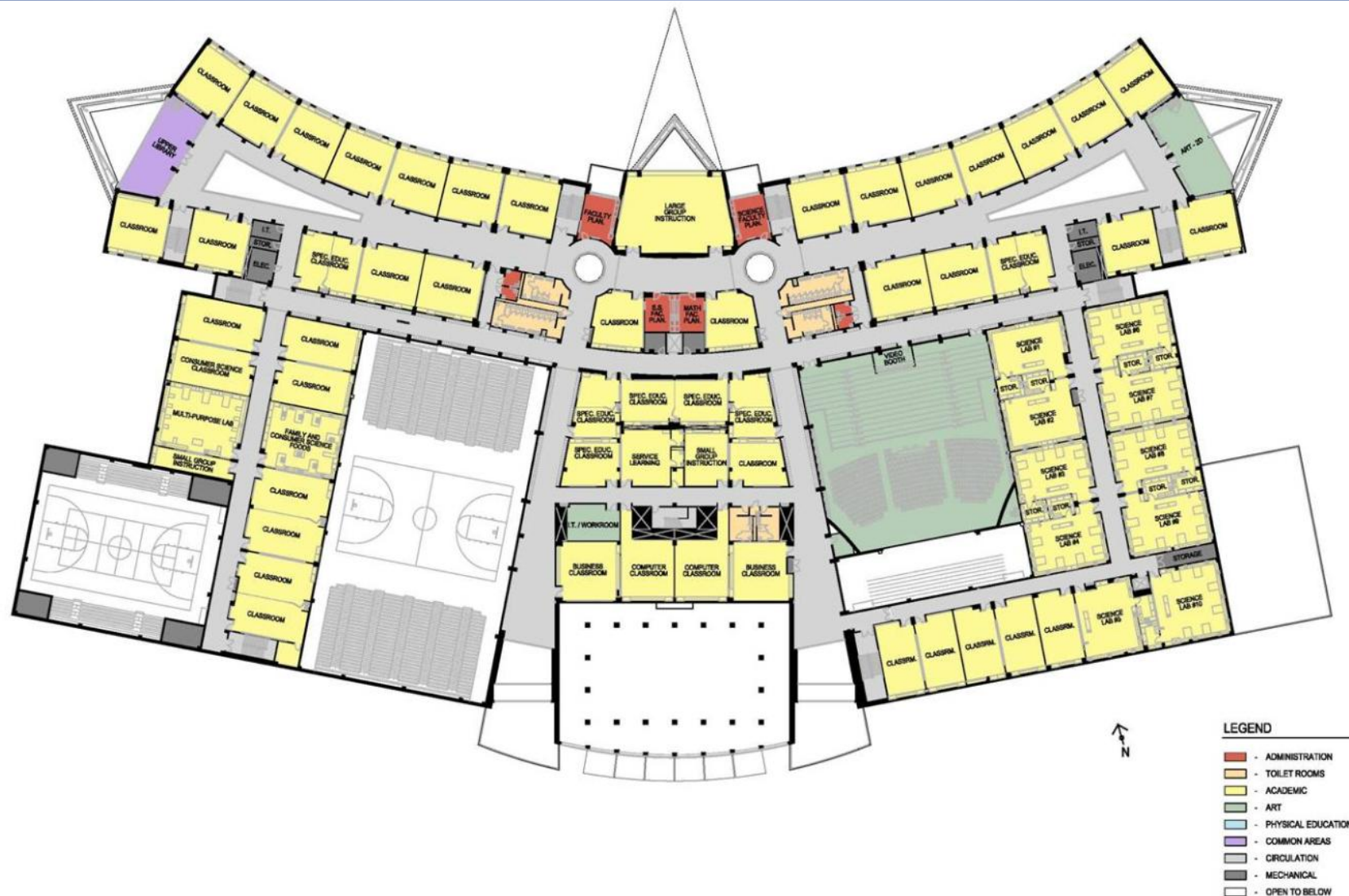
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First Floor plan



Second Floor plan



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2013 Project Data

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
Other Firm #1:	Turner Construction
Project Role	Construction Manager
Project Contact	Ms. Betsy Kane
Title	Project Liaison
Address	620 Liberty Avenue
City, State or Province, Country	Pittsburgh, PA 15222
Phone	412-400-0240
Other Firm #2:	RUCON
Project Role	Client Representative /Construction Manager
Project Contact	Mr. Dennis Russo
Title	Owner
Address	38 Boulder Drive
City, State or Province, Country	Pittsburgh, PA 15239
Phone	412-215-3023
Construction Firm:	Massaro Construction
Project Role	General Contractor
Project Contact	Mr. Patrick Stone
Title	Project Manager
Address	120 Delta Avenue
City, State or Province, Country	Pittsburgh, PA 15238
Phone	412-963-2800

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2013 Project Details

Project Name	Penn Hills High School
City	Pittsburgh, PA 15235
State	Pennsylvania
District Name	Penn Hills School District
Supt/President	Dr. Thomas Washington
Occupancy Date	12/28/2013
Grades Housed	9-12
Capacity(Students)	1900
Site Size (acres)	58.4
Gross Area (sq. ft.)	303,000
Per Occupant(pupil)	159sf
gross/net please indicate	Includes circulation space
Design and Build?	Completed 12/28/2012
If yes, Total Cost:	61,214,000
Includes:	Site, General Construction, HVAC, Plumbing, Fire Protection, Technology, Fixed Equipment
If no,	
Site Development:	6,466,207
Building Construction:	50,758,468
Fixed Equipment:	
Other:	
Total:	76,700,300

Supporting/Supplemental files/Images

Cafeteria



Supporting/Supplemental files/Images

Media Center 1st Floor



Media Center 2nd Floor

