Additions & Renovations to Cohoes High School
Cohoes, New York
A BEACON TO THE COMMUNITY

Formerly a post-war, 1960’s-era high school, this comprehensive project reinvented the building into a 21st century learning institution. The project improved circulation, organization, security, and expanded educational programs, team sports and community events.

Tasked with beautifying the exterior, the project team designed a glazed façade that allows natural daylight to penetrate the new athletic center and lobby. When evening arrives, the illuminated facility acts as a beacon to the community and ignites a new sense of school pride, which is demonstrated by an increase in student and faculty attendance.
Forty five thousand square feet of new construction houses the competition athletic center, elevated fitness track, administrative suites and large classrooms. The new athletic complex accommodates growing programs and spectator-viewing by seating 800 occupants, and featuring a 94-foot court and suspended track.

Renewing school spirit and community participation in sporting events, the new athletic complex exists as a gathering space for the community to rally in support of the school.

The complex also serves the public with space for community theatre and a track open for community use.
DESIGNED FOR EXPANDING PHYSICAL EDUCATION PROGRAMS

The new athletic complex serves students’ physical education needs and takes into consideration student insecurities and child and young adult health issues, including obesity, diabetes and poor nutrition. The design of this complex accommodates students who may find themselves uncomfortable participating in routine sporting games; and instead provides the option to enjoy exercise around the elevated fitness track. The view of the outdoor scenery motivates and inspires track users while connecting them to their community. And from the outside looking in, students and the community get a sense of the activity and energy within.
FLEXIBLE CLASSROOM ENVIRONMENTS

New project-based learning and large group instruction classrooms provide flexible furniture arrangements and state-of-the-art interactive presentation boards to accommodate the goal of adaptable spaces. Classroom spaces were designed to increase the flow and use of space and provide dual functionality: Learning and presenting. By use of transparency, the project offers visual connectivity between different learning environments.
CREATING A SENSE OF PLACE

The lobby entrance – situated efficiently between the auditorium and gymnasium – provides improved security and direct access to the new main office suites. Upon entering, the subtle curve of the auditorium leads you along display cases to a double-height light well, washing the walls and illuminating the floors. The light well also offers daylight to the second floor hallways connecting to the new classrooms and guidance suite.

The addition’s palette of materials contrasts the building’s existing brick, placing more emphasis on community space. A white colonnade – constructed of composite panel rain-screen – provides a sense of procession between the athletic fields and complex, and it provides a link between the fields, renovated gym and community spaces that front the building. Honed concrete block forms the shell of the new athletic center.
SUSTAINABILITY A PRIORITY

Energy efficient systems and design techniques were identified as a priority early on and was implemented by:

1. Panelized rain-screen cladding
2. Aluminum and glass curtain-wall that opens the façade for daylight and offers views of the lobby, connectors and fitness track
3. A rooftop-mounted 50kW solar photovoltaic system with power inverter
4. Low-E glazing, heat recovery
5. A cold water chiller that cools the existing auditorium and gymnasium, but was downsized, as both spaces do not require simultaneous air conditioning
IDENTIFYING PROGRAM GOALS

The district commissioned a long-range plan that focused on operations and maintenance. The list of deficient systems included the roofs, exterior envelope, security, etc. The project was born to address these issues.

As the project developed, the design team welcomed inside and outside stakeholders into a process that would unearth major deficiencies in the educational program. They included a deficiency in athletic space, both for physical education and the community use; a music and theater facility that was inadequate; a guidance department so cramped that students could not gather; and academic classrooms that were not properly designed for project-based learning.
The solution reflects input from stakeholders, including academic departments, the students, and city residents. Everyone worked together to see that all interests were addressed. Of course, money was not unlimited. Naturally, compromises were made to keep within budget; none to the detriment of the project’s functionality. For example, since the theater and gymnasium wouldn’t simultaneously host events, the new, large lobby performed double-duty between the gym and auditorium. Likewise, the air conditioning systems were designed to switch between the gym and the auditorium as needed, saving the district substantial costs. Construction took place during school session and was completed on schedule. The project is phase 1 of on-going improvement projects.
FLOOR PLAN
2nd level
SUBMITTING FIRM: CSArch, Architecture | Engineering | Construction Management

PROJECT ROLE: Architecture
PROJECT CONTACT: Robert Libby
TITLE: Superintendent
ADDRESS: 4 Bevan Street
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JOINT PARTNER FIRM: Ryan-Biggs Associates

PROJECT ROLE: Structural Engineering
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OTHER FIRM: Excel Engineering, P.C.

PROJECT ROLE: MEP Engineering
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CONSTRUCTION FIRM: Turner Construction

PROJECT ROLE: Construction Manager
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### PROJECT DETAILS

**PROJECT NAME:** Additions and Renovations to Cohoes High School  
**CITY:** Cohoes  
**STATE:** New York  
**DISTRICT NAME:** Cohoes City School District  
**SUPERINTENDENT:** Robert Libby  
**OCCUPANCY DATE:** Completed over 18 months, construction took place during school sessions and was completed on schedule, Nov. 2011  
**GRADES HOUSED:** 9-12  
**CAPACITY:** 650 students  
**SITE SIZE (ACRES):** 48 acres  
**GROSS AREA (SQ. FT):** 45,000  
**PER OCCUPANT (PUPIL):** 264 sf/student  
**GROSS/NET PLEASE INDICATE:** Gross  

### DESIGN AND BUILD?

**IF YES, TOTAL COST?**

**INCLUDES:**

**IF NO**

**SITE DEVELOPMENT:** $1,234,000  
**BUILDING CONSTRUCTION:** $11,766,000  
**FIXED EQUIPMENT:** $274,000  
**OTHER:**

**TOTAL:** $13,274,000