

**CLIENT**

**BECTON BOARD  
OF EDUCATION**

**LOCATION:**

H.P. Becton High School  
East Rutherford, NJ



**CONSTRUCTION VALUE:**  
\$30 Million

**DESIGN START:**  
2005

**DESIGN COMPLETE:**  
2009

**CONSTRUCTION COMPLETE:**  
2013

**SCOPE OF WORK**

Design MEP Upgrades for existing 152,000 sq. ft school complex and additions

**PROJECT DESCRIPTION**

The project requires upgrading the two-story, 152,000 sq. ft school building constructed in 1971, located in the flight path of Teterboro Airport to meet the requirements of the Aircraft Noise Abatement Program sponsored by the Port Authority & Federal Aviation Administration. The project also involves renovations of existing facilities and construction of the library/media center and create new science classrooms.

A&J designed the upgrades to the existing mechanical, electrical and plumbing systems and the MEP systems for the additions. The building will be air-conditioned by replacing the existing heating and ventilation system with new 2-pipe HVAC system consisting of two (2) gas fired absorbers with each having a capacity of 260 Tons cooling & 3900 MBH heating. Ten (10) new AHU's will be installed of which four (4) are 100% outside air AHU's with active desiccant wheels and enthalpy wheels. All other units are equipped with enthalpy wheels and economizers to meet the ASHRAE 90.1. New recirculation type unit ventilators are provided for the classrooms to take care of sensible load.

A new 1500 kVA Transformer, a Main Switch-board & a Fire Alarm system was designed for the project.