

The Profile School

A High Performance School (NE CHPS)

The Profile School is designed to meet the NH High Performance School guidelines, a program which focuses on quality educational buildings which provide a high quality indoor environment, are energy efficient, and have a lower impact on the natural environment.

Other High Performance Features

- * More than 60% of the construction materials are locally manufactured (within 500 miles)
- * More than 17% of the construction materials are comprised of Post-Industrial and Post-Consumer recycled contents.
- * Many of the wood products are from certified, well managed forests.
- * 90% of the classrooms do not have air conditioning - providing considerable cost and energy savings.
- * Dedicated recycling centers are located throughout the school.
- * Dedicated bicycle storage is provided for bicycle commuters.
- * High efficiency, and high quality interior lighting.
- * Classroom lights are controlled with daylight and occupancy sensors for energy savings.
- * Original high school, (due to poor quality construction), to be removed and recycled.
- * More than 75% of construction wastes to be recycled.
- * Exterior lighting fixtures are "full-cutoff" type to significantly reduce light pollution and save energy.
- * Indoor spaces provided with 100% outside air ventilation for good indoor air quality.
- * Cafeteria, gym, and library, located to allow use by the community.
- * The use of high quality drinking water for flushing toilets to be reduced by 20%.
- * Playing fields to be irrigated with collected rainwater.
- * Windows and skylights strategically placed for natural daylighting.
- * 3-part entry mat system for helping to stop dirt and environmental pollutants at the door.
- * Designed with a focus on energy efficiency - saving money and reducing greenhouse gas emissions.

Skylights in gymnasium provide daylighting

Flat roof collects rainwater for irrigation of play fields

Large classroom windows to maximize daylight and views

High efficiency ventilation units

Existing Middle School

High performance exterior building envelope:

- * High R-value wall and roof insulation (30% higher)
- * High performance window glass (maximized daylight & minimized summer heat gain)
- * Long-lasting low maintenance materials





PROFILE HIGH SCHOOL

Bethlehem, New Hampshire

Several years ago the Profile school was put on probation by the Department of Education and the State Fire Marshal for a significantly aging facility. A plan was developed to replace the existing 1975 high school and upgrade the 1994 middle school building.

Following the NH High Performance School guidelines, a new high school and core spaces were designed to be joined to the existing middle school. The new program provides much needed spaces to meet the school's educational program and provide for future growth.

1st HIGH PERFORMANCE HIGH SCHOOL IN NH:

- Highly energy-efficient building envelope
- Significant natural daylighting in classrooms
- Electric lighting / daylighting sensors
- High-efficiency HVAC units
- Rainwater collection from roof runoff for field irrigation

"This school is very impressive...one of the most well thought out schools I've seen."

**Carolyn Sarno,
Northeast Energy Efficiency Partnerships (NEEP)**

