

Energy

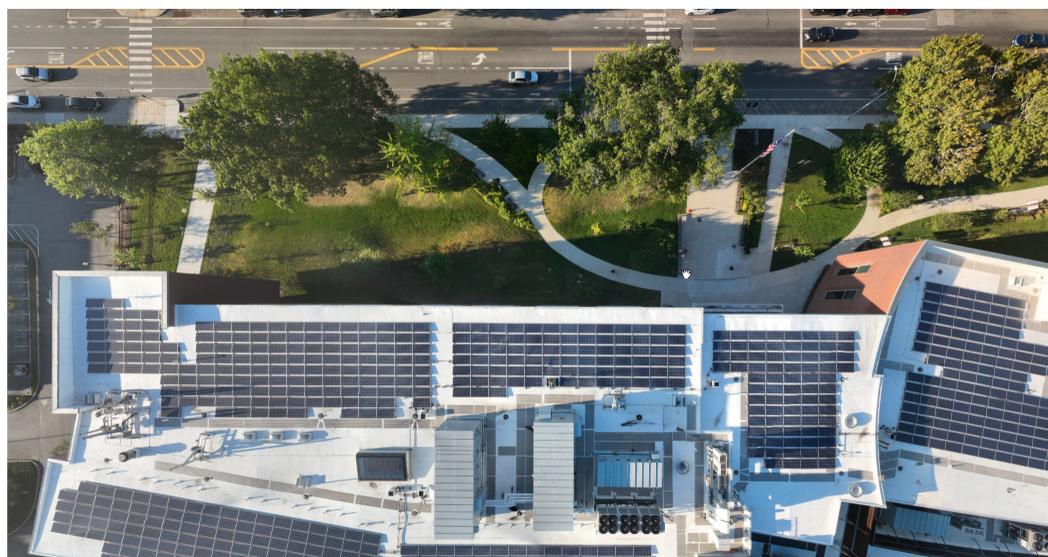
Limiting energy use to reduce operational carbon

Efficient systems, a well-insulated envelope, and daylighting strategies help lower AHS's **energy consumption**. Time-scheduled outlets reduce plug loads, limiting excess energy use.

- Efficient systems
- Passive design
- Plug load management
- Solar energy

Building Facts

A **solar array** produces **clean electricity** to offset a portion of the building's energy use, equivalent to the annual usage of about 170 Arlington households.



Carbon Reduction

Reducing carbon-intensive materials and the energy associated with construction, operation, and transportation

Supporting Arlington's goal of carbon neutrality by 2050, the building's design minimizes **operational carbon** and **embodied carbon**. The all-electric facility uses heating and cooling systems that rely on an increasingly clean electric grid and do not burn fossil fuels on site. Conscious material selection lowers the building's **global warming potential** (GWP), also known as its carbon footprint.

- Operational carbon
- Embodied carbon
- Transportation

Building Facts

Light-reflective roofing helps cool the area around the building, which keeps interior temperatures down and reduces the energy used for cooling.

Indoor Environmental Quality

Ensuring a healthy and comfortable interior environment

The new high school's interior environment promotes **mental and physical well-being** with optimal air quality, natural light, thermal comfort, and appropriate acoustics, allowing students and faculty to focus solely on education.

- Daylight
- Air quality
- Thermal comfort
- Acoustics
- Biophilic design

Building Facts

To ensure **appropriate acoustics**, the school utilizes sound-blocking strategies and highly absorptive materials, including ceiling tiles in classrooms, felt baffles in communal spaces, and texturized acoustic spray in lightwells.



Water

Reducing water consumption and managing rainwater on-site

Water is a **vital natural resource**. In the high school, it supports occupants, building functions, and natural site elements. The design employs **water management strategies** to help conserve this resource.

- Potable water conservation
- Rainwater management

Building Facts

Low-flow plumbing fixtures conserve over **660,000 gallons of water per year**, the equivalent of an Olympic-sized swimming pool!



Take a handout or scan the QR code to learn more sustainable building facts about Arlington High School

Connections

Fostering meaningful connections between people and place

Through strategic planning, views between spaces, and access to the outdoors, the design cultivates connection on multiple levels: connections between students, connection to the greater Arlington community, and connection to the natural environment.

- Interpersonal connection
- Community connection
- Connection to nature

Building Facts

Direct outdoor access to facilitate expanded learning opportunities and a connection to nature.

