PERSPECTIVE

BSA+A ARCHITECTURE/INTERIOR DESIGN

SMART BUILDINGS
SYNTHETIC TURF
CAREER DAY
ON THE BOARDS

SPRING/SUMMER 2007

FRONT/INSIDE COVER: **CARVER VOCATIONAL TECHNICAL HIGH SCHOOL**

B S A + A

DELAWARE

FLORIDA

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PERSPECTIVE

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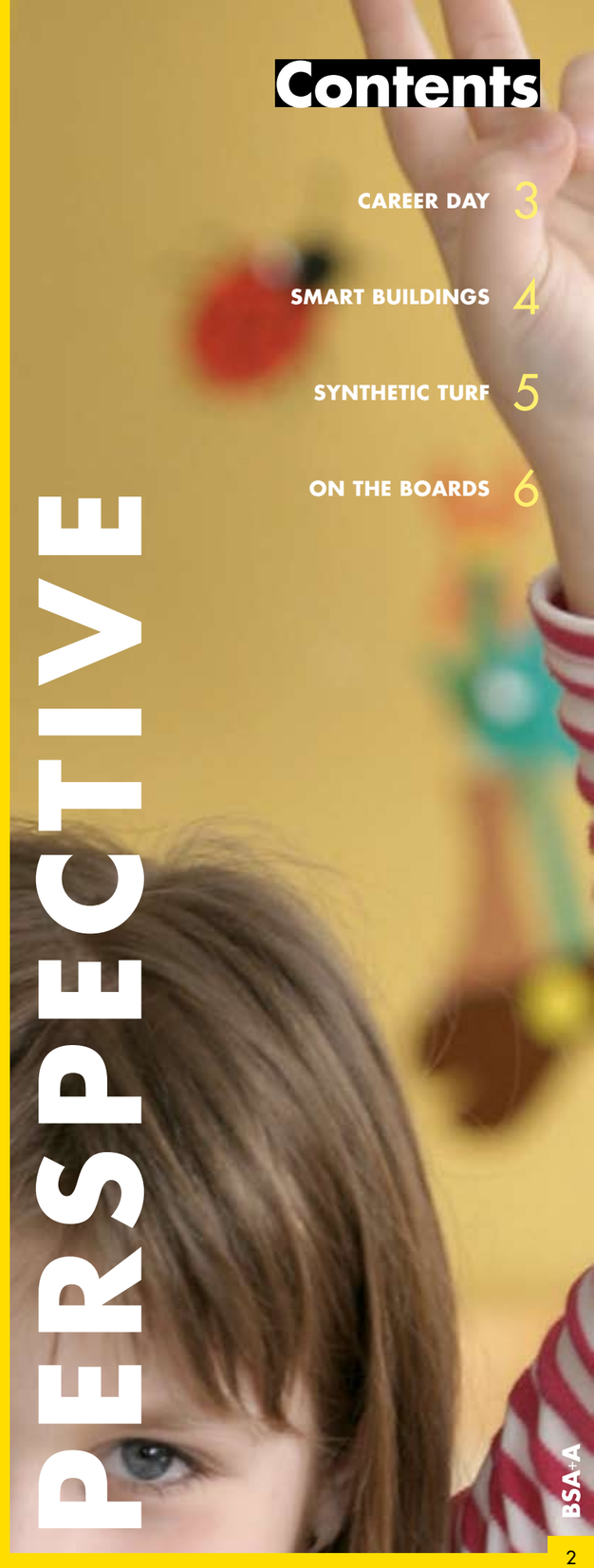
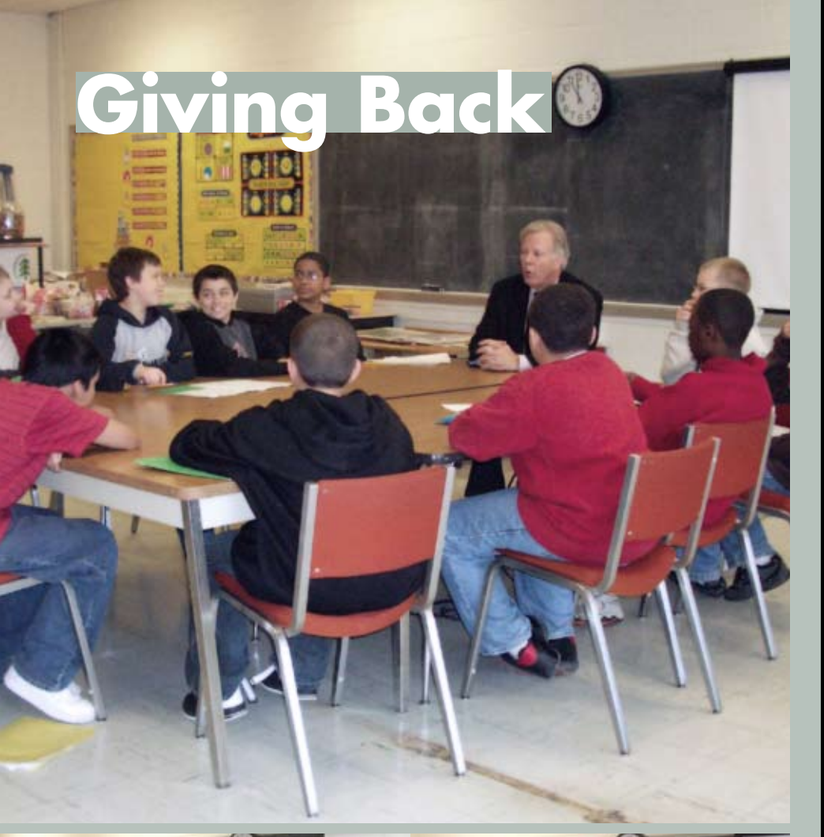


Giving Back



Career Day at Bancroft

In a continued effort to give back to the community, Buck Simpers recently volunteered for the 6th Grade Career Day Program at Bancroft School. He explained architectural concepts by pointing out elements within the classroom such as windows, concrete block walls and chalkboards.

He stressed that architecture is more than just design, it's thinking about the big picture by defining who will use the space and how it will be used. Buck left the students with one fundamental piece of advice, "Draw everything you see." He explained how practice will help them learn perspective, depth and dimension. The students were enthusiastic to share their sketches and eagerly asked questions about his career in architecture.

Members of the BSA+A staff continue to donate time and mentoring throughout the year to K-12 students.

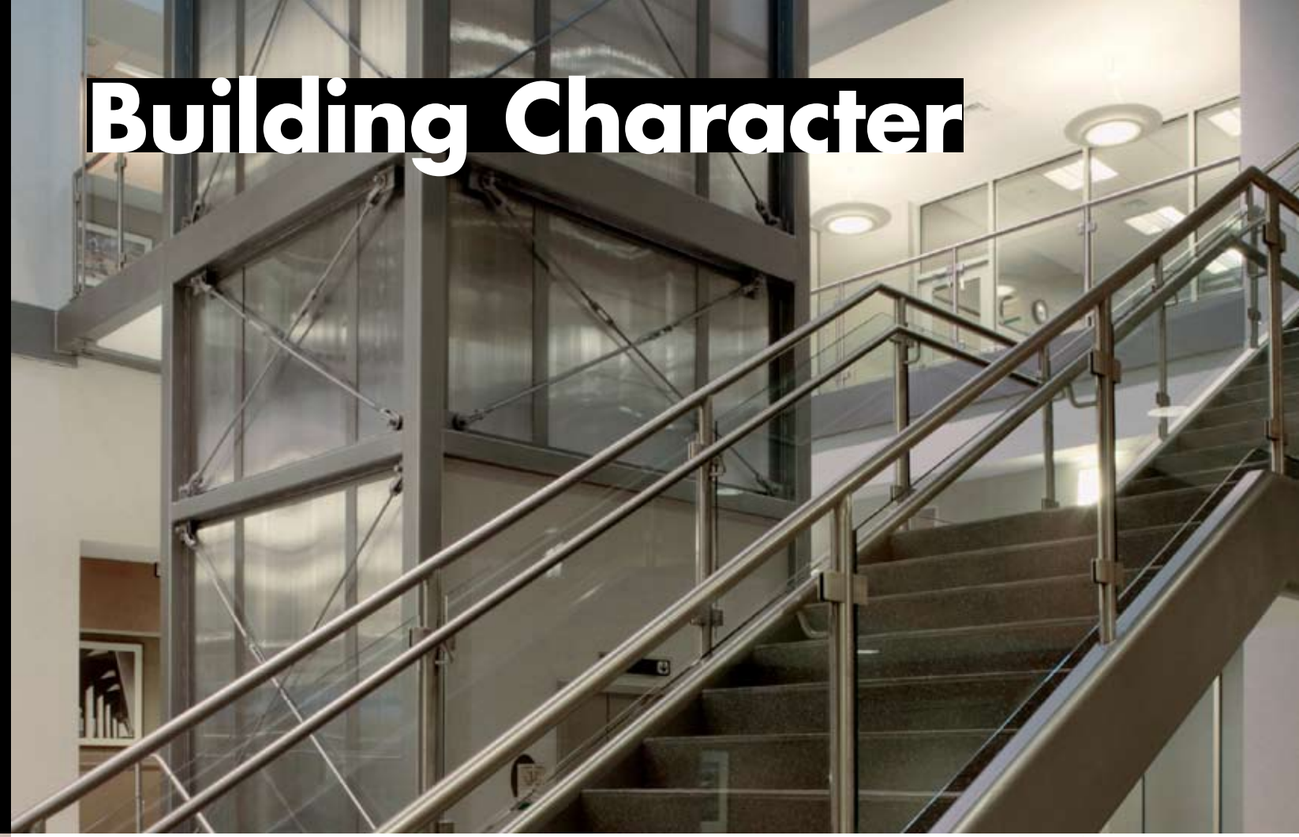
What makes a building SMART?

According to the Building Owners and Managers Association (BOMA) 13 building systems and structural features are often found in SMART buildings. These features are a combination of automated control of various building functions, fast and flexible telecommunication systems, and timesaving conveniences for building occupants.

Fiber-optics capability
Built-in wiring for Internet access
Wiring for high-speed networks
LAN and WAN connectivity
Satellite accessibility
ISDN
Redundant power source
Conduits for power/data/voice cabling
High-tech, energy-efficient HVAC system
Automatic on/off sensor in the lighting system
"Smart" elevators that group passengers by floor
Automatic sensors installed in faucets/toilets
Computerized/interactive building directory

Resource:
"Design Brief: Smart Buildings"
www.EnergyDesignResources.com

Building Character

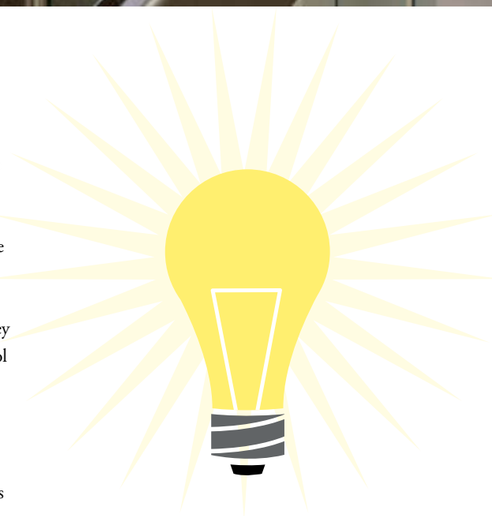


How Smart is your facility?

In a smart building where all systems are tied together, your workday could start out much differently. For example, upon entering your building at the beginning of the workday via a security access card, all systems would be activated. The elevator would be notified that you have arrived and take you to your floor without the push of a button and the office environment would automatically adjust the temperature and lighting controls to meet your needs. Your computer would automatically turn on and all new emails would be up and ready for your viewing. If adjustments were needed such as temperature and lighting, you would have the ability to access the controls from an icon on your desktop.

Smart buildings today provide a flexible, productive and cost-effective environment that adapts to the current and future needs of building occupants. Heating, air conditioning, security, and lighting among other systems are now becoming centralized into one system as buildings get "smarter". Building automation systems are being joined with IT infrastructure allowing facility managers to use web-based applications to control the environment throughout large buildings and campuses. They are able to collect, share data and better control the overall building operating costs.

New schools are also catching onto this trend. At the new Appoquinimink High School set to open in August of 2008, the BSA+A team is implementing a smart, energy control system called the Encelium System. This technology is a digital control system for lighting that has occupancy sensors as well as automatic dimming capabilities for bright and sunny days when less light is needed. Other smart, energy-saving systems at the new high school include waterless urinals and low-flow plumbing fixtures.



COLLECT AND SHARE DATA TO BETTER CONTROL THE OVERALL BUILDING OPERATING COSTS

The Other Side

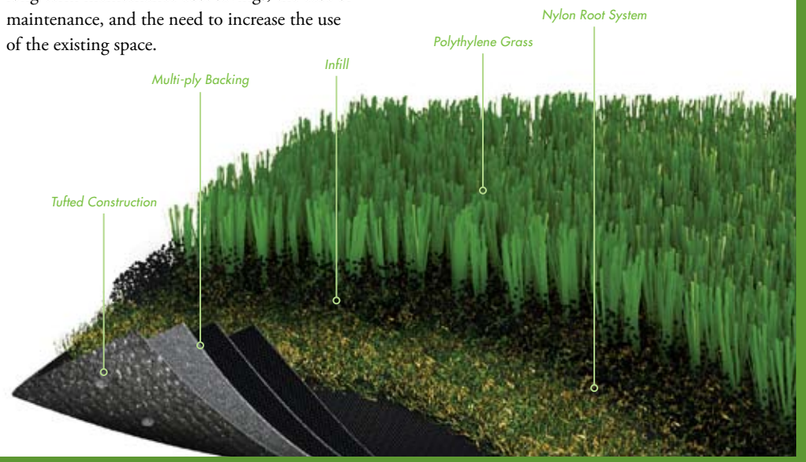
When is synthetic turf the right choice?

When the need emerged for field upgrades at Appoquinimink School District in Middletown, Delaware, BSA+A was selected to implement synthetic turf fields. Billings Stadium is the second synthetic turf field completed in Delaware and accommodates three times the number of games throughout the year.

Synthetic vs. Natural
The major benefits of synthetic turf fields include ease of maintenance and versatility in various types of weather without the concern of damage to the field. Environmental advantages include reduced water usage and a pesticide and fertilizer filter. Synthetic turf most typically includes granulated rubber as infill that is composed of recycled automobile tires. Furthermore, new generation synthetic turf is as safe as natural turf. Although the cost of synthetic turf installation is more costly than a natural field, the benefits significantly outweigh the costs largely because the long-term maintenance is considerably less expensive. One of the most important advantages is that synthetic turf fields can be used continually without the damaging effects and wear and tear that occurs with grass fields.

What is right for your district?
BSA+A assisted the Appoquinimink School District (ASD) with their final assessment of each field's benefits versus its deficits. Bob Hershey, Buildings & Facilities Supervisor for ASD summed up the issues with the natural turf fields by stating, "With both boys' and girls' soccer and lacrosse, field hockey and football all wishing to compete under the lights of the stadium, keeping the natural grass surface in an acceptable playing condition was impossible. By the end of our fall season, our home soccer games had to be rescheduled to "away" games because of the condition of the field." The BSA+A team analyzed the initial cost vs. the long-term maintenance cost savings, the ease of maintenance, and the need to increase the use of the existing space.

The District has been extremely pleased with the synthetic turf field at Billings Stadium. According to Hershey, "Overuse is not a consideration with our new synthetic turf field. Even after several rainy Friday evening football games, we don't have to anguish over what the condition of our field will be like for the next soccer or hockey game. For me, the field has been a major blessing. Our community is so pleased with the look, feel and play of the field that they approved a totally local funded referendum to install two more synthetic fields, one each at our two high schools, giving us four new synthetic turf fields in our district."



Did you know?

- American School & University, July 2006 Issue

The porous materials in synthetic turf drain water at rates exceeding 14 inches per hour allowing teams to play in rainy conditions or resume play quickly after a severe storm.

During field sport seasons, a natural turf field usually averages about 10 hours of use per week. Synthetic turf can be used continually without damaging effects.

In a comparison of a natural grass high school field and a synthetic high school field in western North Carolina, the annual maintenance cost of the synthetic was $26,750.00 less than that of the natural grass.

On The Boards

Cape Henlopen School District Major Capital Projects
Lewes, Delaware

The design is underway for the new 1600 student Cape Henlopen High School to replace the existing high school on the same site. BSA+A worked with the school district to create a phasing plan that allows the students to stay in the existing school while the new building is being built. A new 10,000 SF field house will be constructed to support all athletic programs adjacent to the new athletic stadium. The BSA+A team is also completing four elementary school additions and upgrades throughout the district.

New Castle Public Library
New Castle, Delaware

BSA+A is excited to be a part of the vision for the future of the New Castle Public Library by assisting them with the expansion and renovation of the existing library. Local residents can look forward to the addition of a new garden and an open floor plan with an abundance of natural light. ADA upgrades include the addition of an elevator and the reconfiguration of the entrance will allow for after-hours access for outside groups to use as meeting space. This historic renovation and expansion will begin with the acquisition of the historic house adjacent to the library and will continue the design tradition of the existing architecture.

New York City School Construction Authority (NYSCA)
New York, NY

The NYSCA was established in December 1988 to build new public schools and manage the design, construction and renovation of capital projects in New York City's 1,200 public school buildings, half of which were constructed prior to 1949. BSA+A New Jersey has been selected to assist them with this initiative. We are currently providing auditorium upgrades to P.S. 62 and science laboratory upgrades to P.S. 34 and additional capital improvement projects to various schools in Manhattan, Queens and the Bronx.

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