A Winning Approach for Auxiliary Athletic Spaces

By Gregg Nelson

Athletic success – whether on the field, court, rink or other arena – requires preparation. The repetitive nature of athletic practice – endless drills, strength conditioning, stretching, etc. – is seldom celebrated. Only games, and especially victories, attract the public's attention. However, winning athletic programs – either at high school or college level – understand that these behind-the-scenes efforts can mark the difference between victory and defeat.

In a similar way, architects and specifiers involved in designing successful athletic facilities should pay attention to the auxiliary areas that determine whether that facility will fulfill its potential. These areas include:

- Equipment rooms
- Team and locker rooms
- Storage areas
- Laundry rooms
- Coach and trainer meeting and planning spaces

By helping ensure these "back of house" areas are not overlooked or short-changed in the design process, athletic facilities can maximize coach and staff time, protect a significant equipment investment and minimize liabilities, while promoting messages of program pride.

Understanding the challenges faced by the users of these athletic facilities is the best place to begin. This article is based on information found in our Athletic Facility Planning Guide, which serves as the foundation for Wenger's AIA/CES course that has been presented to more than 170 architects and nearly 1,000 athletic directors, coaches and equipment managers.

OPTIMIZING SPACE

"No athletic program has enough storage space," says Byron Olson, CAA, activities director at Lakeville North High School in Lakeville, Minn. "And the different shapes of equipment make orderly storage difficult."

From our field research, we estimate the average high school athletic program has total storage needs in the range of 2,000 – 3,400 square feet, based on a dozen teams each for boys and girls. That's enough equipment to cover 70% of a regulation basketball court!

University-level programs require significantly more storage. The University of Missouri at Columbia fields 20 sports teams. Director of equipment operations Don Barnes says the athletic programs might receive more than 25,000 pieces of equipment to inventory over the course of a year. That could include 1,000 pair of socks.

"For a major Division I university program like ours, I believe that's pretty normal," comments Barnes, adding that larger schools like Ohio State might handle twice that amount of gear.

"It's very easy to be organized when every item has a home," says Barnes. "Without that, it's very difficult." Their previous storage room had fixed

shelves, which meant one shelf might have a stack of 60 shirts and another have only five. “There was a lot of wasted space, and we ended up cramming more shirts into the open shelf spaces anyway,” he explains.

“When I needed something, I’d have to dig through piles and mess up everything else that was folded there,” Barnes recalls. “If you do that four or five times, you’ve messed up the whole room. It was very inefficient and frustrating.”

To organize space efficiently, you first need enough space to work with. Our Guide features a rule-of-thumb chart listing recommended equipment storage space for different boys’ and girls’ sports, such as baseball, ice hockey and wrestling. For example, the storage needs for a typical girls’ basketball team might range from 75 to 150 square feet, depending on program size.

Our space estimates are based on our own observations visiting facilities at all levels, input from industry experts and communication with architects. Recommendations are intended to accommodate equipment and adequate space for movement around it. Creating only enough space for a pile of stuff will cause problems – particularly if the stuff being sought is at the bottom of the pile!

Football is one of the most space-intensive sports, both in numbers of players and amount of equipment. An average high school team with 100 football players will probably have 120 jerseys to account for different sizes needed each year. One player usually has three jerseys – home, away and practice – so the total jersey count jumps to 360. If each jersey requires about ¾” of hanging space on a bar, this calculates to 22½ lineal feet of storage space – just for football jerseys!

In our field research, we saw several schools with high-density solutions comprised of homemade wheeled carts, similar to hotel bellboy carts. Wenger and other manufacturers offer their own versions of such carts.

By maximizing cubic capacity, more gear can be stored – such high-density solutions can open up 75% of the floor space. They can provide greater accessibility, more visual organization, improved inventory management and better sanitation – all at the same time. These goals should not be mutually exclusive.

IMPROVING TRAFFIC FLOW, FLEXIBILITY

With so much equipment to organize and manage, issues of traffic flow and logistics become critical in space planning. Athletic departments have lots of people and equipment to move, and not just on game days. Daily practices may involve even more activity, because not every player travels to away games.

Minimizing congestion and related confusion saves time and reduces frustration. Maximizing the flow of people and equipment can save 5-10 minutes each day, quickly adding up to hours of preparation time gained over a season.

Storage areas and related spaces should not be considered static places where things just sit on shelves. Flexibility and mobility – wheels, carts, double doors, etc. – are all critical in making these rooms work.

The fluid movement of people and equipment is also aided by a large general equipment room organized into sport-specific areas that eliminate cross

traffic. Football, usually the most equipment-intensive sport, often benefits from its own separate area, including dedicated space for equipment fitting and repair.

Whenever possible, the various areas of the athletic facility should be integrated to become one single department, with common adjacencies and efficiencies.

Support areas logically belong near the areas they support: laundry near the main equipment room, staging area near the exit, etc. Offices should be located where they can aid in supervision and security to important areas.

Well-planned facilities feature areas that can serve multiple needs, providing more value for different purposes throughout school day. A locker room used only for changing clothes is empty many hours a day. But a locker room with a large, open space – facilitated by folding chairs rather than permanent benches – can also function for team meetings or whiteboard/film sessions. Similarly, an equipment room with flexible open space could also function for coach meetings along with distributing and fitting equipment.

Flexible rooms with open areas that transition easily maximize the value of square footage and cubic capacity. Open floor space is required, ideally facilitated by mobile storage solutions on wheels.

ENHANCING SECURITY

Athletic facilities need to balance openness and flexibility with a systematic approach to safeguarding equipment. Even an average high school athletic program may have more than $1 million invested in equipment, including uniforms, jerseys, balls, bats, etc.

The greatest security risks aren't masked bandits or crime syndicates. Athletic directors will point fingers at players and coaches as the biggest culprits, either as "light-fingered thieves" or "forgetful borrowers."

Schools that track inventory well can spot pilferage quickly, and easily quantify the annual dollar value of these losses. That number is usually high enough to command the administration's attention.

Before their lockable, high-density storage system was installed, San Marcos High School in San Marcos, Texas, stored athletic equipment in small bins, makeshift cubbyholes and open shelves. Poor security was a big problem.

"We were losing between $5,000 and $8,000 worth of athletic equipment annually – and I think that's a conservative figure," claims Jaime J. Perez, M.Ed., ATC, LAT, head athletic trainer/equipment supervisor.

"Stuff would just disappear," he recalls, adding that replacing a football helmet – for example – costs $200. This school's football program averaged 150-200 players each season.

Perez admits that buying lockable, high-density storage carts is a big investment, especially compared with homemade shelves. "But because I work with it every day, I understand the practicality, functionality and efficiency of this solution – and the value of the investment," he explains.

If a $40,000 storage system saves $5,000 worth of equipment loss each year, Perez says the system's true cost after five years is really only $15,000, compared with spending $10,000 or $12,000 for wooden shelves. "You need to

make this apples-to-apples comparison, because people crunching the numbers will just see the initial price tags," he advises.

The most effective security relies on multiple layers of locked doors and cabinets – with tightly controlled key access – along with doors and walls with windows that enable adults to easily monitor activities.

PROTECTING ATHLETES

Along with maintaining and safeguarding inventory, there is another, related aspect of effective storage: equipment integrity and its role in athlete safety.

With school athletics, liabilities are significant and litigation is likely if an equipment failure leads to a serious injury. Protective equipment used in contact sports – including helmets and shoulder pads – should receive regular independent, off-site inspection, often by the supplier. This helps ensure safety for the athletes and reduces liability risk for the school.

The governing body that establishes equipment standards is NOCSAE – the National Operating Committee on Standards for Athletic Equipment. They are like the OSHA of sports, mandating rules aimed at reducing injuries by improving equipment.

Football helmets, for example, must be NOCSAE-compliant. Once a helmet is five years past the NOCSAE standard, it's not compliant. Coaches and equipment managers must verify and document that all in-use helmets are compliant.

An organized storage solution can facilitate inspection and reconditioning schedules, reducing a school's liability risk. When the football helmets are piled up in a laundry cart or heaped in a closet, listing them in a computer spreadsheet or three-ring notebook is meaningless because schedules are not really being maintained. To be traceable, equipment must be easily accessible.

While safeguarding equipment to help prevent injuries is certainly important, a school's auxiliary spaces cannot ignore a stealthier liability risk: sanitation.

ENSURING SANITATION

Sanitation liabilities have made headlines recently and such stories are unflattering for any unfortunate school. And while media coverage is often sensationalized, the risks are very real. Athletes can suffer season-ending infections, and sometimes even death. The pathogen grabbing the most media attention recently is MRSA, which stands for methicillin-resistant Staphylococcus aureus, but other dangers include mold, mildew, staph infections and viruses.

Some equipment storage rooms or locker rooms emit a noxious smell that is noticeable even outside the door. Masking the odor problem with deodorizing sprays does not fix anything. Such odors should not be ignored; they indicate microorganisms are thriving – a potential problem waiting to happen. Moisture and heat are these microorganisms' best friends.

To eliminate the underlying problems causing these odors, a high volume of cool, dry airflow is essential. Athletic auxiliary areas should have oversized

HVAC capacity, with A/C to keep rooms cool and dry. Laundry rooms should vent outside to help keep interior moisture levels down.

In team rooms and locker rooms, adequate airflow starts with lockers and their open, breathable surfaces. Perforated, pressed-metal lockers can provide up to 50% airflow, metal tube and grille lockers more than 80%. An open grid locker bottom allows dirt and debris to drop through to the floor; mounting options should facilitate easy cleaning underneath.

Sanitary spaces and clutter are mutually exclusive. The only truly clean storage space is clutter-free. Boxes and piles on the floor attract and hide dirt and dust, making cleaning difficult. Mobile, wheeled storage solutions keep equipment off the floor, preventing moisture from wicking up and facilitating bleach mopping.

Designing LEED buildings is a growing trend, and most storage manufacturers can provide solutions that help achieve LEED certification. However, “green” buildings are not necessarily sanitary. A design that eliminates non-cleanable nooks, crannies and corners will help ensure the athletic facility can be easily sanitized for years to come.

Improved organization, security, safety and health – all are important byproducts of the right storage solution. The overall effect contributes to a final, less tangible result – promoting program pride.

FOSTERING PRIDE

For the University of Missouri, the biggest single reason to choose a high-density storage system was “the wow factor – the awe effect.”

“We strive for this in every area of our building,” Barnes explains. “When potential recruits tour campus…we want them to say ‘wow’ everywhere they go.” Barnes says that facilities make a big difference in recruiting players, giving an edge over comparable schools with similar records and athletic programs.

College athletic directors call it a “facilities arms race.” Every nook and cranny of the athletic facility should reinforce the program’s image and message – pride, tradition and brand.

At the high school level, schools strive to instill valuable life lessons and character qualities through after-school co-activities like athletics and the arts. There’s growing awareness and research that such involvement is key to how kids well develop and mature.

But these life lessons of teamwork, discipline, pride in performance and the pursuit of excellence can be easily undermined. Student athletes will spot inconsistencies and mixed messages unless all areas of the athletic facility support and reinforce that message. It’s similar to real estate – a house with “curb appeal” but a dirty, disorganized interior will not interest buyers.

For athletic programs, instilling pride starts with the staff.

“Our coaches and staff love walking in the equipment room and seeing our team colors and logo, with everything stored in an orderly fashion,” says Olson of Lakeville. “When something is out place, the coaches quickly let me or my equipment manager know. Everyone wants the room to stay looking good.”

For athletes, school colors, logos, mascot artwork, trophies and photos can serve as ongoing sources of inspiration. Team rooms should be designed to celebrate past achievements and honor top athletes; such rooms often merit higher-end locker solutions than regular gym lockers.

When designing athletic facilities, the proper planning of auxiliary, “back of house” areas can provide long-lasting benefits that are measured well beyond simple wins and losses. Proper space utilization improves efficiency, safeguards equipment and players, and builds program pride.

Gregg Nelson is a senior market manager with Wenger Corporation, Owatonna, Minnesota, which makes a variety of storage solutions for educational and athletic facilities. For a free copy of Wenger’s 34-page Athletic Facility Planning Guide that outlines best practices and includes helpful information and worksheets, visit wengercorp.com or call 1-800-4WENGER.