



Chapter 7

Athletic Facilities

Introduction

The Boston College Athletics Department (BCAD) offers a broad-based program of intercollegiate athletics involving 725 student-athletes on 31 varsity teams. In addition, BCAD offers intramural, recreation and club sports, each of which contributes to the University's Jesuit, Catholic educational mission to develop the whole person-- physically, intellectually, socially and spiritually. Through its offerings, BCAD plays an integral part in the personal formation and development of BC students, preparing them for citizenship, service and leadership.

The Scoping Determination issued by the Boston Redevelopment Authority requests that the University provide additional information regarding the athletic facilities planned for the Brighton Campus. This chapter provides background and comparison of baseball and softball fields between Boston College and other peer institutions, the proposed building program for the Brighton Athletics Center, and alternative baseball proposals considered by the University. A discussion of the impacts associated with lighting, noise and traffic and parking is also provided. Finally, the chapter includes a discussion regarding the impact of synthetic playing surfaces and the City of Boston's investment in synthetic turf fields.

Need for New Baseball and Softball Facilities

When Boston College became the 12th member of the Atlantic Coast Conference (ACC) in 2005, its Athletics Department made a substantial financial commitment to its baseball and softball programs by providing additional athletics scholarships and adding support staff. The ACC is arguably the most competitive conference in intercollegiate athletics in the sport of baseball, and among the strongest in softball. For Boston College to recruit student-athletes and be competitive within the ACC, the University must provide first-class athletics facilities for both sports.

The University's current baseball and softball facilities are inadequate and fall well below the standards of the ACC's other 11 institutions. ACC officials, visiting teams and coaches, members of the news media (particularly broadcast media) and others have expressed concern over the lack of suitable facilities for these sports at Boston College. The baseball and softball facilities at Boston College share Shea Field with football and intramural sports. Shea Field is in high demand by various University athletic programs and is heavily used. Continuing to use Shea Field for baseball and softball does not meet Boston College athletic needs, and places the University at a competitive disadvantage against other ACC institutions.

In addition, the current site of the baseball and softball fields has been identified by BC campus planners as an ideal space for student residence halls, given the proximity of the site to the center of campus and to academic buildings. This combination of the need for improved baseball and softball facilities, coupled with the need to utilize Shea Field for student residence halls, made this proposed relocation a priority for the University.

Seating Capacity Comparison

The goal in designing the Brighton Athletics Center ("the Athletics Center") facilities is to meet the needs of the Boston College baseball and softball programs well into the future, while blending the facilities into the existing surroundings in an unobtrusive manner. While the proposed seating capacities of 1,000 seats for the baseball field and 300 seats for the softball field are certainly greater than the capacities at the current facilities, they will actually place the University at the low end of the conference range. As shown in Table 7-1, the average seating capacity for ACC baseball fields is 3,010 seats, and the average softball field capacity is 800 seats.

Furthermore, Boston College has missed opportunities for its games to be televised due to the lack of proper facilities and equipment at the current venue. For the past several years (and as recently as April 5, 2008), Boston College was forced to move several home games to Campanelli Stadium in Brockton due to poor field conditions and inadequate broadcasting facilities for television and media coverage. New playing fields on the Brighton Campus will enable the baseball and softball programs to have dedicated facilities for the first time.

Brighton Athletics Center

The proposed Athletics Center on the Brighton Campus will provide Boston College with an opportunity it has sought for more than a decade -- to improve its baseball and softball facilities for intercollegiate sports.

Table 7-1 Seating Capacity of Baseball and Softball Facilities in the ACC

ACC Institution	Baseball (number of seats)	Softball (number of seats)
Clemson University	3,500	N/A
Duke University	2,000	N/A
Florida State University	6,200	845
Georgia Institute of Technology	4,157	1,000
University of Maryland	1,900	1,101
University of Miami	5,000	N/A
University of North Carolina	2,000	500
North Carolina State University	2,200	500
University of Virginia	2,624	575
Virginia Tech University	1,033	1,082
Wake Forest University	2,500	N/A
Average Seating Capacity of 11 Institutions	3,010	800
Boston College (proposed)	1,000	300

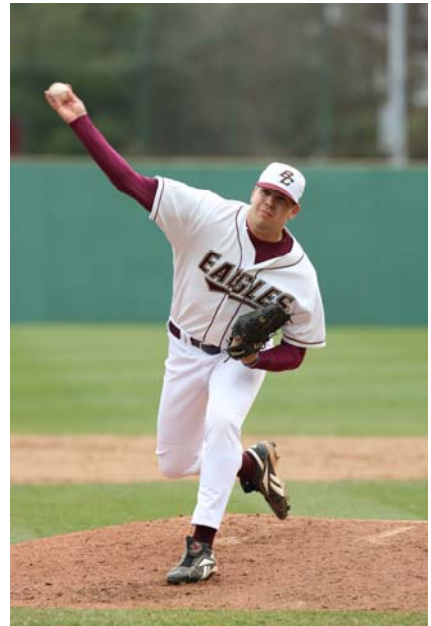
The Athletics Center is proposed on the current site of open fields, situated within the northern portion of the Brighton Campus. The site to be utilized by the Athletics Center program is bounded by St. Clement’s Hall to the east, residential properties along Anselm Terrace and Edison Middle School to the north, Lake Street to the west, and Lane Park residences and Boston College buildings to the south. The site currently includes two roadways that provide access from the main north-south roadway to St. Clement’s Hall and Lake Street. The site is characterized as the lowest topographical area of the Brighton Campus. For the past 20 years it has been used as a site for intramural sports and club activities, such as rugby and ultimate frisbee, and since 2004 it has been used for summer camp activities.

The proposed program for the Athletics Center includes:

- Baseball field
- Softball field
- Intramural field
- Support building

Baseball Field

A new baseball field, approximately 3.5 acres, is proposed for the northeastern portion of the site. The proposed baseball field includes stands with fixed seating to accommodate 1,000 spectators, a backstop structure consisting of media and public address functions and fencing for competitive play and perimeter security. Homeplate and seating are located in the northwest corner of the field away from the neighboring properties on Lane Park. The University will install landscaped screening and buffering along the perimeter of the baseball field. The entrance to the baseball field will be through the support building plaza level. As described in detail later in this chapter, the baseball field will include a synthetic playing surface and lighting.



Softball Field

The new softball field, approximately 1.5 acres, is proposed immediately adjacent to the support building and west of the baseball field. The proposed softball field includes stands with fixed seating to accommodate 300 spectators, and fencing for competitive play and perimeter security. The backstop structure planned for the softball field will be smaller than the one proposed for the baseball field, with similar functions. Home plate is oriented to face the Edison Middle School. The University will install landscaped screening and buffering along the perimeter of the baseball field. The softball field will also include a synthetic outfield playing surface and lighting that are described later in this chapter.

Intramural Field

The proposed intramural field is planned as a 300 x 100 foot field situated west of the softball field along Lake Street. The field is planned to be natural grass with a wrought iron perimeter fence. Due to the scheduled nighttime use of the field for intramurals, the field will include lights.

Support Building

The support building, consisting of approximately 60,000 sf, will be designed to meet the needs of coaches, student-athletes and support staff who will be using the Brighton Athletics Center. The building will be two stories, and will capitalize on the topography of the site to allow for an at-grade plaza level along the main roadway portion and second level below. The majority of the building program supports the baseball and softball operations and includes

interior space for team clubhouses, coaches offices, equipment room, sports medicine, ticketing and concessions, media and press, batting cages and storage.

Advisory Committee

Boston College will form an Athletics Advisory Committee to provide advice and comment on operational and management issues related to the Brighton Athletics Center including staffing, parking, pedestrian and vehicular access routes, sound, lighting and signage. The size and composition of the committee will be mutually agreed upon by the City of Boston, Boston College and the Allston-Brighton Boston College Community Task Force, and such details shall be addressed in the cooperation agreement entered into by the University and the BRA.

Tennis Courts

The proposed tennis courts are no longer part of the Brighton Athletics Center, but will be built on the Brighton Campus, situated south of the proposed parking garage. The six outdoor tennis courts will replace the current tennis courts located adjacent to the modular housing on the Lower Campus. The tennis courts are planned to be NCAA-approved for varsity tennis play and practice. To meet one of the requirements for NCAA approval, a minimum of six courts must be built. The tennis courts will include a hard court surface, standard tennis court fencing and lighting to allow for nighttime play.

Use Plan

The University will use the Brighton Athletics Center in a manner that accommodates the needs of its students and student-athletes while respecting the neighborhood. The users of the Athletics Center and the schedule of use are provided below. Parking for events at the Athletics Center will be accommodated at the proposed parking garage on the Brighton Campus.

Types of Users

It is anticipated that the Brighton Athletics Center will be used by the BC baseball and softball teams, as well as intramural and club sports, mostly during the academic year. The outdoor tennis courts will be used by BC tennis teams and BC community members. Upon request, Boston College makes its athletic facilities available to local community and youth sports groups.

Varsity Sports

The baseball and softball fields will be used primarily by the University's respective varsity sports teams for practice and games. The tennis courts will be used by the men's and women's varsity tennis teams for practice and games.

The fields and tennis courts are designed to meet NCAA standards for competitive games. As described later in this chapter, the NCAA has strict limitations of use by varsity teams. The fields and tennis courts also are anticipated to be used for intramural and club sports activities.

Intramural and Club Sports

BC offers a wide variety of intramural sports opportunities that allow students to stay active and physically fit. All intramural activities are overseen by an on-site adult administrator. Intramural men's and women's activities planned for the Athletics Center may include rugby, ultimate frisbee, soccer and lacrosse.

Club sports are student-run organizations that compete on an intercollegiate level against local competition. Under the supervision and through the guidance of University personnel, student leaders plan and organize every aspect of the team, including tryouts, practices, game schedules, travel, lodging and budget. Most clubs are very competitive within the region and several clubs travel to national competitions on an annual basis. All club sports competitions are overseen by an on-site adult administrator.

Summer Programming

Summer programming at the Athletics Center will include sports camps and clinics. In addition to the existing football camp, the Athletics Center will host baseball and softball clinics.

Schedule of Uses

The schedule of uses of the Brighton Athletics Center and the outdoor tennis courts is guided by limitations set forth by the NCAA, the academic calendar year, and respect for the adjacent community. Table 7-2 provides the anticipated schedule for use of the Center. It is important to note that use of the outdoor facilities during the late fall months (i.e., November) and early spring months (i.e., February and March) are dependent on appropriate weather and facility conditions. The University values the safety of its students and student-athletes and will not schedule use of the outdoor facilities unless weather conditions permit.



Table 7-2 Schedule of Use for Brighton Athletics Center

Time of Year/User Group	Days of Week	Time of Day
September to November February to May		
Varsity Team Practice	Mon - Fri	3:00 p.m. to 7:00 p.m.
Varsity Night Games	To Be Determined	To Be Determined
Intramural and Club Sports	Mon – Fri	3:00 p.m. to 9:30 p.m.
	Sat	3:00 p.m. to 7:00 p.m.
	Sun	3:00 p.m. to 9:30 p.m.
June to August		
Youth Camps/Clinics	Mon – Sat	8:00 a.m. to 9:30 p.m.
	Sun	3:00 p.m. to 7:00 p.m.

Informal Use: Fields will be available for informal use by BC individuals and groups when not reserved for organized activities.

The fields will be used for varsity and intramural/club sports activities starting at 3 p.m., and informal use by BC individuals or groups when the fields are not reserved for organized activities. The University anticipates approximately 10-15 evening varsity games each for baseball and softball annually, with actual schedules determined by ACC requirements, weather conditions and scheduling limitations of non-conference schools. The Athletics Advisory Committee will be informed of varsity schedules on a timely basis.

Additionally, the University anticipates ending field or court activities at 9:30 p.m. and a “lights-out” time of 10:00 p.m. The proposed time limit, however, does not preclude finishing a game in progress. When the fields are not in use, the lights will be off. The following section summarizes the schedule limitations on the proposed users of the fields.

Varsity Sports

The NCAA limits an institution’s playing season in baseball and softball for all teams. The following limitations on baseball and softball field use and administration must be adhered to by the Athletics Department:

- Playing season is 132 days
- Within a playing season, a maximum of 56 games may be played
- 45 of these days may be conducted in the fall on consecutive days during the months of September, October and November
- Fall seasons cannot commence before September 1

- Spring seasons cannot begin before February 1
- Practice sessions are limited to a maximum of four hours per day and 20 hours per week

During the fall, baseball and softball varsity teams will use the fields for training, practice, scrimmages and conditioning. No competitive in-season games will be planned for the fall months.

During the spring, it is anticipated that each team will play approximately 30 games at home. As common practice within the ACC, some of these games may be doubleheaders. Consequently, approximately 15 to 20 game dates will be needed to accommodate the spring games in baseball and softball.

Similar to baseball and softball, varsity tennis practices and games are limited by the NCAA. While most of the varsity tennis games are held in the spring, a few varsity games are played in the fall. The following limitations on tennis use must be adhered to by the Athletics Department:

- Playing season is 144 days
- Within a playing season, a maximum of 25 dates of games may be played
- Fall seasons cannot commence before September 7 or the first day of class, whichever is earlier
- Spring seasons cannot begin before February 1
- Practice or competition is capped to a maximum of four hours per day and 20 hours per week

Intramural and Club Sports

There are more than 35 intramural leagues and tournaments offered over the course of the academic year. There are a total of 20 club sports competing per academic year. Intramural and club sports activities are typically scheduled in the late afternoon and evening, after students are finished with classes. Any intramural or club sport activities on the baseball or softball fields or tennis courts would occur outside of the varsity sports schedule.

Nighttime Lighting

To accommodate the needs of its athletic program, Boston College will install lighting at the Brighton Athletics Center and the outdoor tennis courts. The use of nighttime lighting for the fields will greatly benefit student-athletes by allowing them to attend day classes, and practice either late in the afternoon or into the early evening. The University is carefully evaluating the use and design of lighting to reduce the potential impact on adjacent neighbors, while also providing safety for its students and student-athletes. This section

describes the variety of lighting elements proposed for the Athletics Center and the outdoor tennis courts, and the University's plan to mitigate any negative aspects associated with nighttime lighting.

As shown in the schedule of uses in Table 7-2, nighttime lighting will be needed for varsity sports, intramural and club sports, and summer programming. The number of night baseball and softball games is undetermined at this point, and will vary from year to year. It is anticipated that the teams will play approximately ten night games. In addition, the baseball and softball team may practice under night game lighting conditions when needed. However, the proposed lighting design will provide a variety of lighting fixtures with varying degrees of intensity, which will allow the University to lower the lighting level for most scheduled nighttime use in order to reduce impacts to adjacent neighbors. When fields are in use, lights will be dimmed at 9:30 p.m. and turned off at 10:00 p.m., except when a varsity game continues beyond those times. Intramural play on the Brighton fields will conclude by no later than 9:30 pm *regardless* of the status of play (i.e. mid-period or inning, if necessary).

The University shall work closely with the Athletics Advisory Committee to monitor compliance with conditions applicable to such night play. To this end, the University shall produce periodic reports summarizing actual intramural lighting use and meet regularly with the Athletics Advisory Committee during the academic year to review such reports. If in any academic year, the reports evidence material, persistent violations by the University (defined as 10 percent or more of intramural games ending after 9:45 pm), Boston College shall be required to submit a remedial plan to the Athletics Advisory Committee, outlining additional conditions on lighting use designed to insure stricter compliance in the following academic year. Failure to submit such remedial plan may subject the University to further action by the City of Boston to enforce compliance with the light restrictions.

Baseball and Softball Lighting

The baseball and softball fields are designed to include state-of-the art technologies to minimize glare and light spillage. The proposed poles will be in the 80 to 100 feet height range. Contrary to common belief, higher poles allow for more direct on-field lighting, and further reduce light spillage. The baseball field and softball field will each contain eight poles to light the fields. It is anticipated that light levels for standard conditions, such as during practice and non-televised games, will provide 70 foot candles (fc) at the infield, and 50 fc at the outfield. Light levels for locally and regionally televised games will provide 100 fc at the infield and 70 fc at the outfield, while light levels for any nationally televised games would be 125 fc at the infield and 100 fc in the outfield.

Tennis Court Lighting

The proposed tennis court light poles will be in the 30-40-foot height range, and will require approximately 18 poles to light the six proposed courts. The courts will be lighted to 75 fc, which is the NCAA minimum for non-televised competition.

Intramural Field

The proposed intramural light poles will be in the 70-foot to 80-foot height range, and will require four poles to light the field. The field will be lighted to a minimal level of 30 fc.

Pedestrian and Roadway Lighting

Proposed lighting will utilize Boston College standard light poles at heights varying from 15 to 25 feet, depending on location and use. These poles will be spaced approximately 40 to 70 feet on-center in order to provide one foot candle of light at pedestrian walks, vehicular drives and parking areas.

Table 7-3 Proposed Lighting Program

	Approximate Number of Light Poles	Estimated Height (feet)	Approximate Light Intensity (fc)	Field Condition
Baseball Field	8	80-100	Varies as shown below	Varies as shown below
			70	Standard (infield)
			50	Standard (outfield)
			100	Local & regional broadcast game (infield)
			70	Local & regional broadcast game (outfield)
			125	National broadcast game (infield)
			100	National broadcast game (outfield)
Softball Field	6	70-80	Varies as shown below	Varies as shown below
			70	Standard (infield)
			50	Standard (outfield)
			100	Local & regional broadcast game (infield)
			70	Local & regional broadcast game (outfield)
			125	National broadcast game (infield)
			100	National broadcast game (outfield)
Tennis Court	18	30-40	75	Standard
Intramural Field	4	70-80	30	Standard
Pedestrian and Roadway	Varies (spaced 40 feet to 70 feet apart)	15-25	At appropriate level to ensure public safety.	-

Mitigation Measures

The outdoor field and court lighting proposed at the Athletics Center will utilize state-of-the-art technology to minimize glare and light spill beyond the playing fields. According to the

project's designers, this new technology reduces light spillage by 50 percent over older technology systems.

Lighting fixtures will be constructed of die-cast aluminum incorporating specular inserts to mechanically direct light where it is needed and remove it where it is not needed. The fixtures will achieve a better cut-off, minimizing the potential light being cast onto neighboring properties.

Each individual beam will be an asymmetric shape and customized for each aiming position on the field. By custom fitting every luminaire, the lighting system will require a reduced number of fixtures.

The lighting system may incorporate the following to achieve the desired results: visors, backshields, shifting of the beam (where needed), customized use/installation, landscaping, fencing.

Baseball and softball designs may incorporate an appropriate level of vertical light, due to the nature of the sport. The lighting system will be designed to account for this need. For tennis and intramural activities where vertical light is not needed above the luminaires, lighting design may incorporate optics to minimize the effects of unnecessary light above the pole.

In addition, lighting systems for baseball and softball will be configured to provide lighting at three levels: a NCAA minimum level for nationally televised games, a NCAA minimum level for regionally and locally broadcast games and a level suitable for practice, and intramural and club sport activities.

Noise

The proposed outdoor fields, tennis courts and support building are being planned and designed to minimize sound levels in the surrounding neighborhood. The predominant sound sources from the proposed Brighton Athletics Center will be heating, ventilation and air conditioning (HVAC) equipment operations in the support building and athletic activities. The HVAC equipment will be designed to comply with City of Boston regulations. Further, the support building will be located in the center of the proposed complex of outdoor fields, well removed from nearby residences.

The dominant noise sources for the fields include player and spectator noise, and the public address system. Player noise is not expected to differ from any noise generated by current playing activity of the existing fields. Access to all the playing fields will be through an entrance to the support building opposite Bishop Peterson Hall. As a result, all players and spectators will reach the fields via the internal spine road on the campus which is located away from neighboring residences. This will minimize any potential noise impacts on nearby properties from facility users.

The public address system will be used for intercollegiate baseball and softball games. It is anticipated that each team would play approximately 30 games at home. Some of the home games would be combined into doubleheaders. Consequently, between 15 and 20 dates will be needed to accommodate the spring games in baseball and softball.

During the 15 to 20 intercollegiate games that will make use of a public address system, specific noise mitigation measures have been developed to minimize the sound levels from the baseball and softball fields. These mitigation measures include locating the baseball and softball seating areas away from neighboring homes, conducting field maintenance during daytime hours, and using a public address system that is designed to minimize sound leaving the fields.

Each of these mitigation measures will serve to minimize the effect of sound levels on the neighboring residences. Specific attention has been paid to the public address system. Typically, public address systems rely on a few high-volume speakers to broadcast over the entire field area. The system that will be used on the baseball and softball fields will be designed to use multiple speakers that are designed to focus sound on a smaller section of the spectator seating area. As a result, individual speakers will operate on lower volumes and the sound will dissipate as it travels across the infield and outfield to the edges of the Boston College property.

Parking and Site Access

Boston College will develop, implement and publicize a comprehensive and detailed traffic and parking plan, as it has in the past for football, basketball and ice hockey events on the Chestnut Hill Campus and soccer events on the Newton Campus. Fans driving to the games on the Brighton Campus will be directed to park in the new parking garage, which can be accessed from either Commonwealth Avenue or Foster Street. If additional parking is needed for select events, overflow cars will be directed to park in the Commonwealth Avenue Garage. A-frame signs will direct fans from the Commonwealth Avenue Garage to the Brighton Campus.

Students and other members of the BC community who choose to walk to the games will be directed to enter the baseball and softball center from Commonwealth Avenue via the Brighton Campus spine road, thus minimizing foot traffic on surrounding streets. For information on the transportation impacts of the development on the Brighton Campus, see Chapter 9, *Transportation and Parking*.

Synthetic Playing Surface

Boston College plans to install a synthetic playing surface for the baseball field and softball field. The intramural field surface will be natural grass.

The installation of a synthetic surface will enable the baseball and softball programs to maximize their opportunities to practice and compete without the many delays and postponements associated with New England weather. During the 2008 season, the baseball team was forced to play road games for a full month before a home opener could be scheduled. Even then, with temperatures hovering at or below freezing, preparation and maintenance of an all-grass field proved virtually impossible.

Further, advances in technology within the past decade have led to the production of synthetic surfaces that result in significantly fewer player injuries. A synthetic playing surface also requires less maintenance, eliminates the need for pesticides or herbicides and conserves water.

Environmental Impact

The primary environmental concern, currently under debate, relates to the potential leaching of heavy metals from the recycled styrene-butadiene rubber (SBR) that is used as a component in the infill system. The rubber is mixed with sand and “infilled” into the polyethylene “grass” blades to mimic the feel of natural soil and to provide a resilient surface for the athlete. According to the materials reviewed by the University, including studies prepared by Helen Liu, a leading researcher at the University of Massachusetts¹, leachate resulting from SBR derived from scrap tires and chemicals from the other components of the synthetic surface system (sand, polyolefin fibers and acrylic backings) meet current environmental standards and should not be considered hazardous.

Studies indicate that leachate from the SBR is only problematic at extreme pH levels. Organic compounds can be leached at highly acidic pH levels and metals at highly basic pH levels. Soil and rainwater pH in the greater Boston area is generally close to neutral (7.0 being neutral). The studies indicate that significant leaching of metals does not occur until the level drops into the 2.0 to 3.5 range. There is no reason to believe that soil or rainwater levels on the Brighton Campus would reach these extreme levels. Therefore significant leaching of pollutants is not expected as a result of the proposed construction of the new synthetic turf baseball and softball fields.

Since 1998, more than 100 synthetic playing fields (playgrounds, soccer fields, baseball fields, etc.) have been installed in the Boston area. Such fields include local installations at BC’s Alumni Stadium, Boston University’s Nickerson Field, Emerson College’s Rotch Park and Harvard University’s soccer and lacrosse field.

In addition, according to the Fiscal Year 2008 Budget issued by the City of Boston Office of Budget Management, the city’s capital planning initiatives include continued funding of its

¹ H.Liu, et.al., Environmental Impacts of Recycled Rubber in Light Fill Applications; Summary & Evaluation of Existing Literature, 1998.

own artificial turf program. Over the past several years, the City of Boston has installed synthetic playing surfaces at several city-owned school and recreation facilities. In recent years, the City of Boston installed synthetic turf at Charlestown High School, Madison Park High School and Pagel Playground, to cite a few.

Based on available research, the University believes that the installation of synthetic playing surfaces is a wise investment, provides significant benefit to users, conserves water and results in no significant environmental or health impacts.