



Sports Field Tips:

Ten Steps to a Successful Sports Field Construction Project

Okay, your institution or organization is committed to improving its athletic facilities, and you have decided to move ahead with a renovation project, or perhaps construct a new sports field or complex. How do you begin?

There are several preparations that owners and facility managers can make to ensure the success of any athletic field project — and the long-term viability of your facility.

1) Understand your needs. First determine how much traffic you expect your field to bear. Consider not only games and team practices, but also the contributions of physical education classes, marching band rehearsals, graduations and any other events that may add foot or equipment traffic to your field. Underestimating your usage may lead to poor judgment when drafting specifications for rootzone preparations or maintenance schedules.

2) Study your site to be sure your needs and expectations match your field's capabilities. Now that you know what your needs are, you need to determine whether your site can handle the field of your dreams. Because soil physics and the movement of water are very site-specific — especially in glacier-carved New England — sports fields require a site-specific approach to construction and maintenance. A careful agronomic study of your soil will lend invaluable information to this stage of your project, allowing you to hone your specifications and focus your resources to get the job done right (see our Tip: “Soil Testing For Success” for more information).

3) Learn about the advantages and disadvantages of the different types of field construction. Because they are the least expensive kind of field to build, *native-soil fields* account for the vast majority of sports fields being constructed today. Limited by local drainage patterns and the composition of on-site topsoil, native-soil fields also require diligent maintenance to ensure long-term success. If your agronomic analysis shows that your site cannot support your expected traffic, then you may need to build a *modified native-soil field* and add soil amendments or take additional steps during subgrade construction and rootzone preparation. You may want to consider a *sand-based field* if your needs are considerable.

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4) Diagnose your problems. If you are renovating an existing field, determine your problem areas. Your field may have inadequate surface drainage, reducing playing time. Your turf may have inferior grass species or weed encroachment, leading to poor traction and player injury. Your grade may need improvement. Problem areas can also include infrastructure and staffing: you may not have enough personnel to properly manage the field, for instance, or the right kind of equipment to perform regular maintenance.

5) Assemble the best team possible. Your project team should start with coaches, facility managers, maintenance staff, purchasing officers, athletes and other end users. Solicit the input of everyone with a vested interest in your facility. Then, assemble a team of consultants, landscape architects, soil scientists and contractors that specialize in sports fields. Check their references and experience going back five years — make sure their fields have performed to expectations. Keep an eye on the long-term when qualifying your construction team (i.e., you want your field built right the first time).

6) Develop specifications that work for your field. With one eye on your performance expectations for your field and another on your site's physical capabilities, you can develop a set of specifications that accomplishes your goals. The specs should address subgrade preparation, soil amendments (if any), drainage improvements, irrigation systems, grading tolerances, seeding or sodding guidelines, fertilization and other maintenance practices. Be sure that acceptable materials for your field (i.e., sand, gravel, topsoil, sod, etc.) are available within a reasonable shipping distance to your site and that they are specified with precision (there are many different size gradations of sand, for instance; only one is most appropriate for your rootzone). Being as specific as possible with your field specifications nets the highest quality results and avoids costly mistakes.

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7) Develop a construction schedule. Your schedule of events should outline a timetable for design, all phases of construction, grow-in, future maintenance and any bidding cycles on materials and services. Allocate one year for a seeded field project. If you need Opening Day to come sooner, plan on a sodded field.

8) Keep your sports field project separate from other construction activities. Sometimes a sports field construction project will be packaged with the building of a school or other institutional improvements. This is a bad idea, in general. The materials, construction processes and contractors associated with sports field development are not the same as those involved in the construction of buildings and other infrastructure. Preparing the subgrade, irrigation system, rootzone composition, final grade and grow-in are highly specialized tasks best left to sports field specialists. Bid packages for athletic field services and materials should be kept separate from other general contracting related to your campus development.

9) Make sure funding is adequate and secure. Simply, be sure you can afford to build the field that meets your needs — or adjust your expectations and specifications accordingly. Determining your budget early will allow time for any necessary fundraising efforts. Funding for your sports field construction should be completely separate from funding for other facilities. You don't want to have to decide between a press box and topsoil, for instance. When that happens, the press box often wins — much to the detriment of your athletes.

10) Maintain, maintain, maintain. Maintenance begins on paper, where soil and nutrient analysis are translated into specifications for field care after construction. Maintenance is accomplished in the field, and demands timely and knowledgeable service during the grow-in and beyond. If you retain outside assistance to supplement the efforts of your grounds crew, be sure to select a vendor with proven experience in the maintenance of high-performance sports fields. You've expended a lot of time and resources to build your field of dreams. Make the right choices to *keep* it that way.