

PLANNING FOR NEW FIELD CONSTRUCTION

BY RAYMOND L. RUDOLPH, JR., PE, AND EDWARD J. O'HARA, RLA



"If you don't know where you're going, you could end up someplace else." Yogi Berra

Imagine you're enjoying a transatlantic flight. The intercom comes on and the pilot says, "Ladies and gentleman, we're almost there. We're still over water, but I expect to see land any time now." After a pause he continues, "Once we do, we'll probably start looking around for a big city, they almost always have airports."

PRESERVE CAMPUS AESTHETICS; PROTECT FUTURE OPTIONS; UNCOVER NOVEL FUNDING OPTIONS.



You need to plan to succeed. Over the years, we have had the opportunity to guide more than 50 collegiate playing fields to completion. All have become high quality facilities, but a few remain "hidden gems" whose potential as a campus showpiece has never been fully realized. A turf field can be a work of art, both functional and beautiful. Unfortunately, without a long-term plan to guide construction, many new fields get tucked away, or placed out of context in a way that does not do justice to the field or the campus as a whole.

The answer lies in starting out with an athletic facilities master plan. Generally speaking, a master plan is simply a "blueprint" that guides construction in a coherent and unified way. Commonly applied for long-term campus development as a whole, it also works beautifully on a smaller scale for athletic facilities. Given the way campus greens are disappearing, it is tempting to say an athletic facilities master plan is a must have for anyone who wants to preserve the traditional look of their campus. Proceeding without one will get you the facilities you needed, but you may lose the traditional "campus" look along the way, which is more important than it sounds. The aesthetics of the physical environment impact a school's ability to attract talented athlete/scholars.

A master plan can determine a school's present and future program needs, the available land, future property acquisitions, and the sequence of construction. This is especially important for schools and universities located in urban areas with little room for expansion. A master plan also helps get the development ball rolling by:

- ° Building consensus among campus stakeholders
- ° Establishing the proper sequence and phasing for improvements
- ° Integrating sports improvements into overall budget
- ° Establishing momentum for future phases
- ° Serving as an excellent marketing tool at fundraising events

From an engineering and landscape architecture point of view, the visible playing surface is just the tip of the iceberg. Before construction, a master plan allows your design consultant to consider the impact that installed drainage, utility, and other underground components will have on future construction. There is some flexibility in applied design solutions. Guided by a master plan, the design consultant can usually develop a solution that avoids limiting your construction options in the future.

Beyond preserving your options, a master plan allows you to explore novel funding



options. There is a new trend in athletic facility master planning whereby joint ventures are pursued between the public and private sectors with the intention of sharing a common facility. For example, a collegiate level team and professional team can share the same sports facility venue. The arrangement is attractive to schools because it brings in additional funding through rental income, can result in a higher quality (professional level) sports facility, and distributes ongoing maintenance costs across multiple parties.

We have had some experience with this. In the course of developing an athletic facilities master plan for Hudson Valley Community College (HVCC) in upstate New York, we discovered the college's football field was under-used and out of step with the school's anticipated needs. In its place, a new baseball stadium that would be shared with the ValleyCats, a Houston Astros affiliate, was designed and installed. In return for use of the facility, the ValleyCats provides HVCC with a rental income that is used to run the stadium. In addition to renting the facility from the college, the ValleyCats donate money to the school's general fund.

Help from the ValleyCats allowed HVCC to redesign and rebuild all of their outdoor sports facilities, including six tennis courts, two football fields, a softball field, a soccer field, two clubhouses, maintenance facilities and parking areas. Between the potential for creating a showpiece facility, preserving future construction options, and uncovering novel funding opportunities, starting with an athletic facilities master plan is becoming a must for any school anticipating major investments in new sports facilities.

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Rudolph and O'Hara are principals at Clough, Harbour & Associates LLP, an engineering, surveying, planning, and landscape architecture firm in Albany, NY, www.cloughharbour.com.

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When to aerate

BY PHILIP THREADGOLD

We all know that aeration aids in solving drainage problems. But when should you aerate?

One should aerate to achieve soil de-compaction when the demand for oxygen is high, when the plant is actively growing, and soil microorganisms are respiring, but there is no straightforward answer. Generally, during spring and fall, when temperatures are near optimum for microorganisms and roots need a great deal of oxygen.

With the warm season, grasses demand for oxygen is high but the turf professional typically has to fight users because of the potential for disrupting play.

Many professionals have questioned the timing of various aeration techniques. Timing is critically important. As a general rule, turf should be aerated when it is growing most vigorously. This gives turf plants the opportunity to recover more readily, especially from rigorous practices like deep tining.

Warm season grasses are best aerated during the summer, not when they are going into or coming out of dormancy. In the case of cool season grasses, mid-summer aeration should be avoided as these

plants are already under substantial stress during hot weather.

Use patterns are another consideration. Professionals need to take into account the level of wear and tear and plan accordingly. Remember that all use is disruptive in nature; coordinating aeration during periods of rapid plant growth, if your usage schedule will permit, offsets this factor. Regardless of the aeration technique, resulting compaction relief is not permanent and professionals are well advised to continue a routine program.

Constructed in 1977 from specs provided by the school's own horticulture professors, the stadium field of New Mexico State University (NMSU) at Las Cruces certainly earns its keep. The natural turf field is used for no fewer than 57 events each year, with more events likely to be added. The story of how the school compensates for such stress on its stadium turf offers lessons for other organizations looking to combat compaction on high-use turf areas.

Pat Montoya, the university's grounds manager and a licensed landscape architect with a degree in horticulture, relies on deep-tine aeration of the field, using a Verti-Drain aerator, two or three times in the

pre-season, usually beginning in April. (He does this again during the season, as the field schedule allows, relieving compaction during the field's periods of heavy use.) Montoya supplements this with an annual hollow-core aeration, pulling cores 3-inches long in May and June.

"We cannot tolerate major disruptions in the field schedule," Montoya says. "Our experience with deep tine aerators that shatter the soil shows that they can be used effectively during periods of heavy field use with minimal disruption. What little disruption it causes is well worth the end result of growing healthier, stronger turf plants."

How frequently should aeration be done? According to Martyn Jones, frequent aeration can only help improve soil conditions. "[You] should not hesitate to aerate as frequently as possible. That said, there is enormous pressure on turf professionals to make fields available for use. The real key is in using the right equipment, equipment that won't damage the playing surface."

Philip Threadgold is executive vice president of Redexim Charterhouse, 570-602-3058.



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Toro volunteer Steve LaNasa shares a laugh with Vikings running back Moe Williams as they help to install a playground. Toro and the Vikings teamed up in late September to kick off the United Way's "Two Weeks to Make a Difference" campaign in the Twin Cities by installing a playground at St. David's Child Development and Family Services in Minnetonka, MN.



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