

When the Colts slipped out of Baltimore in the dark of night, the state of Maryland was shocked. How could a professional franchise leave a market with such a tremendous interest in sports? Had some oversight or lack of cooperation contributed to the team's departure for Indianapolis? The city and the state were in a state of disbelief.

A second blow hit Baltimore a few years later, although it never made national news. Again the sport was football, and again the result was embarrassment and disbelief. This time the victims were the members and coaching staff of Towson State University's Tiger football team. The week before summer drills began, the athletic trainer and doctors from the university's department of sports medicine declared the university's practice field unsafe for play because it was compacted and uneven. Practices were moved to another field, but it was the straw that broke the camel's back.

The university's baseball stadium, Burdick Field, was also suffering from an insufficient maintenance program. The NCAA Division I Tiger baseball team did not want the same thing to happen to them that happened to the football team. From this humble position, a new spirit of cooperation arose. And amazingly, two short years later, Burdick Field was awarded the Baseball Diamond of the Year Award in the collegiate category.

To Hoke Smith, president of the state university with more than 15,000 students, 1986 was the year to draw the line and to uncover the flaw in the system that led to such a senseless situation. He wanted to assure the students, coaching staff and alumni that something like this would never happen again.

To get to the root of the problem, Smith called Athletic Director Bill Hunter to his office. Hunter knew the problem wasn't the skill or knowledge of the athletic department or physical plant staff. A long career in professional sports had taught him that the difference between an average field and a great one involves a commitment to quality by both the management and the grounds crew.

Before joining Towson State in 1979 as athletic director and baseball coach, Hunter had played for the Orioles, Dodgers and Yankees, coached third base for the Orioles, and managed the Texas Rangers. The previous year he had put together a ten-year plan to refurbish the university's athletic facilities and appointed Joe Ardolino as assistant athletic director in charge of them.

Placing the assistant athletic director in charge of athletic facilities was a novel approach for universities, especially since Hunter and Ardolino felt the facilities maintenance staff should report to the physical plant department and not to the athletic department.

Ardolino, a graduate of Towson State University and former attacker for its long-successful lacrosse team, also had a master's in athletic administration from the

university. He had given up his assistant coach's position on the lacrosse team to focus all his attention on finding new ways to coordinate management and financing of the athletic facilities on the 300-acre campus.

Paul Thomas had worked his way up the ladder of the physical plant department to become grounds superintendent. He had stretched every dollar of his grounds budget as far as he could without some financial assistance from the athletic department. "We had meetings before, so I was aware of the athletic department's needs and they were aware of my budget and time restrictions, but nothing got solved," recalls Thomas. "When President Smith formed an ad hoc committee to study the problem, things started to happen."

The committee consisted of representatives from the physical education department, the physical plant, the department of

intramurals and recreation, auxiliary enterprises, sports medicine department and academics. The president wanted his faculty and staff to collectively contribute to solving the problem.

"The facts are that the university is growing by leaps and bounds and the demand on our facilities is greater and greater," Ardolino says. "At one time only 20 percent of the students lived on campus. Now the campus population has reached 18,000 and 40 percent live on campus. We have more students who want to participate in a growing variety of sports. We have to find ways to meet this demand within our budget." For example, Ardolino points out that participation in intramurals has jumped, with more than 66 different teams in softball alone.

"It was clear that the university departments using the grounds and athletic fields had to infuse dollars into the existing grounds budget if we were to help Paul,"

FROM GLOOM TO GLORY : TOWSON STATE BASEBALL



Towson State Tigers celebrate winning E

RALLIES BEHIND DIAMOND



erence Championship on field they help build.

Ardolino recalls. "He could put things into motion, but we had to show some initiative and coordinate budgets from various departments to pay for them."

A plan was presented to the president to create a "facilities improvement budget" within departments, part of which would supplement Thomas' grounds budget. With Smith's blessing, the athletic department was the first to designate funds to help out. "We've gone from zero to nearly \$150,000 in three years!" Ardolino exclaims. This money pays for the salaries of three full-time athletic field specialists and for necessary materials and supplies. Even though the money comes from the athletic department, the three specialists work under Thomas.

The new system, combined with an outpouring of donations and assistance, has turned Towson State University's athletic facilities into some of the finest in the country. Burdick Field's honor in being selected

the 1989 collegiate Baseball Diamond of the Year may be just the first of many future awards.

Ardolino, who submitted the entry, was quick to share the award with Thomas and athletic field foreman Dave Taylor. They also experienced the thrill of victory in 1988 when the baseball Tigers advanced to the NCAA Division I Championships with a stunning Eastern Conference record of 12-2-0 on their renovated home field.

But like the championship team they are, the Towson State staff tells an amazing story of teamwork that includes the vast experience and contacts of Bill Hunter, the assistance of Pat Santarone of the Orioles, the support of President Smith, and the determination of Ardolino and Thomas to find new ways to fund improvements. Towson State University and Baltimore definitely have something to be proud of today.

The improvement of Burdick Field began with the installation of new dugouts. All supplies, materials, equipment, and labor were donated by local contractors, supporters of the baseball program, players, coaches, administrators and staff members. After the dugouts were completed, they presented a stark contrast to the infield, which was in "deplorable condition," according to Ardolino.

Just as Hunter and Ardolino started figuring out a way to correct the condition of the playing field, the dreaded announcement about the football practice field was made. Compaction and unevenness were cited as the primary reasons for declaring the field unsafe and President Smith formed the ad hoc committee that would set so many changes in motion.

While attending a local athletic field seminar, Ardolino met George Toma, director of grounds for the Kansas City Royals and Chiefs. Toma suggested that Pat Santarone, groundskeeper for the Orioles, was the person he should contact for help.

Santarone has been a professional league groundskeeper for more than 35 years. He has served the Orioles since 1968 and has been a consultant to universities, racetracks, and other sports turf complexes across the country. "There is a whole lot you can do to improve baseball fields if you have the knowledge and fortitude," he remarks.

Hunter made the call to Santarone, since they had been friends for years. Santarone invited Ardolino to visit Memorial Stadium and also met with Hunter, Ardolino and Thomas at Burdick Field. "Pat's suggestions were drastic," recalls Ardolino, "but they were the only ways to correct the situation and establish a good field that could be maintained on a continuous basis."

Santarone recommended completely excavating the infield to restore a proper grade. "First you need to establish a center line from home plate through second base to the center field wall," he advised. "Water flows away from this center point which can be as much as 18 inches higher in center field than it is deep in foul territory."

The outfield grade was satisfactory, but 18 years of adding dirt to the infield had raised some areas as much as 16 inches. The entire infield plus the first 15 feet of the outfield had to be regraded.

Santarone gave Ardolino formulas for the infield dirt, the pitcher's mound and the batter's box. He also suggested installing 4x4 treated lumber as permanent foul lines in the outfield, along the warning track in front of the dugouts, and around the coaches' boxes and practice mounds in the bullpens. The wood only has to be painted two or three times a season, instead of marking lines weekly. It also retains the stone dust and keeps the turf from encroaching.

Time was limited. They could not rip up the field until the end of the fall baseball season on October 25, yet they had to have a playable surface no later than February

continued on page 16

From Gloom To Glory

continued from page 15

8—not great growing weather for the area.

Furthermore, no funds had been budgeted for such a project. They had a plan, but no money, and only two weeks to secure the needed equipment, supplies and labor before the fall baseball season was to end.

Ardolino and Thomas determined what aspects of the project could utilize university resources and identified others that required outside help. Labor became their greatest concern. Both men had limited manpower due to their other daily operational responsibilities. They decided to utilize their staffs only on an as-available basis and to tackle the problem primarily by recruiting volunteers.

A list of potential volunteers was constructed and Ardolino and Thomas both went to work in an attempt to secure commitments. The engineers in the physical

There was still some apprehension about going ahead, but the prospect of creating a safe and respectable field outweighed any doubts.

They agreed to concentrate their energies on completing the infield and the dugout warning track areas for the spring season. Other related projects, such as an irrigation system and subsurface drainage, would be phased in when time and funding allowed.

On a Sunday afternoon, seven days after the project had begun, the regraded infield was ready for the sod. Santarone recommended sod containing a mixture of five Kentucky bluegrasses which could be overseeded later with perennial ryegrass. The five cultivars were Adelphi, Baron, Ram I, Touchdown and common Kentucky bluegrass. The common was included for its toughness, while the other four provided better color, texture and disease resistance.

Burdick Field was ready for the NCAA Eastern Championships despite two solid days of rain before the event.



plant department agreed to donate their time to set the field grades. Several of Thomas' crew volunteered to help out.

Ardolino happened to have on his staff a former City of Baltimore employee who had worked under Santarone at Memorial Stadium. Frank LiPira could not hear or speak, but he knew how a baseball field should be renovated. His schedule was arranged so that he could work on the project full-time. The Tigers baseball team anxiously volunteered the remainder of the labor necessary to complete the project. Within the first week, all labor commitments were finalized.

The next largest concern was the excavation. The university did not have the necessary equipment or operators to remove 200 cubic yards or more of excess soil. Hunter approached Potts & Callahan Excavation, the company that had donated equipment to build the dugouts. By convincing the excavation company and Santarone to help out, the athletic director secured the two biggest pieces of the puzzle in time for the project to go forward.

With all the necessary components in place, Hunter, Ardolino and Thomas got together to discuss further the feasibility of the project and to make a final decision.

As the sod was laid, Ardolino and LiPira used NCAA specifications to outline all the areas of the infield, including the basepaths, home plate area, mound, coaches' boxes, fungo circles, and warning track. Three straight days of rain followed, which helped the sod but delayed the rest of the project by almost a week.

Once weather permitted, LiPira and Ardolino constructed the mound and batter's box, while Dave Taylor, the new foreman for athletic fields, and his assistant, Mike Andrychuk, installed the 4x4s. The baseball players helped out by building the warning track, fungo circles and coaches' boxes.

Santarone made regular visits to inspect the work and to give tips. He noticed one low area of the infield and suggested to the tired volunteers that the sod there be lifted so that more topsoil could be added. Having come this far in four weeks, the crew did not hesitate to correct the low spot. Santarone also felt that the dirt removed from the basepaths could be reused with the addition of a calcined clay soil conditioner.

With the infield dirt still piled outside the fence, bad weather and heavy morning frosts brought work nearly to a halt. The thought of not being able to complete the

infield before winter set in became a worry.

Bit by bit, the infield dirt was moved into place, leveled, rolled, and dragged. By working a few hours each day through Christmas break, the infield was completed on January 8, 1987. That gave them one month to make any final touches before the baseball team started to use Burdick Field for practice in early February.

On March 8, the Tigers played their first game on Burdick Field against Navy. They went on to play 21 home games that spring without a cancellation. "It used to take us a week to get the field back in play after a good rain," says Thomas. "Now, we can play or practice two hours after a downpour, just by adding some conditioner to the wet spots in the infield dirt."

Throughout the spring season, there was much discussion about other improvements that could be made. Immediately after the season, the group got back together to see if some of these ideas were feasible. "There was a whole lot more confidence this time around," says Ardolino.

Their list included an intensive maintenance program for the outfield turf, installation of a warning track in the outfield, rebuilding the bullpens, fencing to enclose the entire field, and replacing the old scoreboard with a new electronic one. Ironically, the list did not include irrigation.

"We use Nelson Rain Train traveling sprinklers for the fields during the summer," explains Thomas. "We check them every hour, and they take about four hours to irrigate one field. But Burdick Field doesn't have a hydrant nearby. We used to water the infield manually and we've never irrigated the outfield. We suffered droughts the last two summers, so the outfield burned to a crisp. As a result, we overseed in September with ryegrass to get the field ready for fall baseball."

By late June in 1987, Ardolino and Thomas realized that automatic irrigation for the infield was essential. "The infield at Burdick is different from all the rest of our campus turf," Thomas explains. "It's high-maintenance turf and has to be managed that way. We cut it lower (1 to 1½ inch), usually three times each week. It also needs more water and fertilizer (3½ lbs. of nitrogen per year from Nitroform and one late fall application of urea)."

Santarone helped out again, providing Ardolino with a design for an infield irrigation system. The heads were valved so that the dirt could be wet down separately from the turf. Again, the athletic department tapped into its facilities improvement budget to pay for the Toro system, and Thomas' staff installed it that fall.

By the end of 1987, Burdick Field was complete. Cooperation among departments and the generosity of a host of volunteers had overcome typical university budgetary limitations. The Tigers had their field in top shape to take on their NCAA competitors.

"The baseball team could not wait to play at home," boasts Ardolino. They had a new

continued on page 18

From Gloom To Glory

continued from page 16

field and a new coach. Hunter had promoted assistant coach Mike Gottlieb to head coach. After a slow start, the team rebounded to finish the regular season with

May 6, and continued through the first scheduled day of the championship. It did not stop raining until 9:30 that night. The games committee pushed the schedule back one full day, hoping to begin at noon on Saturday.

absorbed and firm footing was restored. All standing water was gone from the turf, and the field was mowed in time for warm-ups for the first game.

Three consecutive "beautiful days for a ball game" followed. In front of their home fans, the Tigers won two games to advance to the championship against Delaware. For



Removing built-up infield dirt with Grade-all (top). Finished diamond marked and ready for a game.

an overall record of 27-15-1 and a conference record of 12-2-0. The Tigers earned the privilege of hosting the East Coast Conference Championships for the first time ever.

More than the team was tested during the championships. The field and the entire baseball facility were also challenged during what was supposed to be a three-day event with eight games. Rain began to fall two days before the opening day, Friday,

Friday night, Ardolino and LiPira tried to remove the standing water from the warning tracks and turf. Only the mound and the home plate had been covered with tarps. It was impossible to walk on the basepaths. They were not encouraged when they left the field that night.

They returned the next morning at 6 a.m. to help Thomas and his crew work on the infield dirt. By working soil conditioner into the basepath mix, excess water was



Pat Santarone of the Baltimore Orioles.

many spectators, it was their first glimpse of the new facility. Over 20 professional scouts watched the games over the three days and commended Hunter, Ardolino and Thomas for the condition of Burdick Field. "Every coach involved in the tournament, as well as the Games Committee, could not believe it was possible to host the tournament that weekend," boasts Ardolino.

The Tigers dominated Delaware and won by a score of 21 to 9. They won the championship in front of the home crowd—and on a field they helped build. From there, they traveled to Miami for the national championships.

Many at Towson State believe that the team's success could be linked directly to the field. That season the Tigers posted the fourth best fielding percentage in NCAA Division I baseball. Four Tigers were selected as all-conference players and pitcher Chris Nabholz was drafted by the Montreal Expos.

Ardolino realized that maintenance was just as important as rebuilding the field. He was determined to protect the athletic department's investment of both time and money by reserving part of his facilities improvement budget for maintenance.

On one hand, he felt that the athletic department should not take over field maintenance. On the other, he wanted enough control over maintenance so that he would not have to compete with other departments and projects for the attention of the grounds staff.

The decision was made for the athletic department to use part of its facilities improvement budget to hire athletic field specialists. They would be part of the AD staff, but they would be managed on a daily

basis by Thomas. The department would also pay for supplies needed by the athletic field specialists that were not already covered by the existing grounds maintenance budget. "The idea was to supplement the grounds crew with personnel and supplies, not to create a separate grounds staff," explains Ardolino.



Paul Thomas, grounds superintendent.

For its investment, however, the athletic department expected more control over field maintenance than it had before. Ardolino had picked Santarone's brains for months in an effort to discover the maintenance practices necessary to keep Burdick Field in top condition. He shared many of these ideas with Thomas.

The two agreed that a specified routine for each campus field was needed to help direct the athletic field specialists. "It took us a whole semester to work the kinks out of a routine for Burdick Field," Ardolino admits. "But when we were finished, we had one plan for the whole year, and another one which spelled out what has to be done on game days, practice days and off days.

"Joe and I meet first thing every day to go over the field schedules, special events or weather problems," says Thomas. "I make sure everything gets done right and on time. He makes sure the crew has everything it needs. It worked so well for Burdick Field, we now have a preplanned routine for our football, lacrosse and intramural fields."

Ardolino hopes that other university departments will infuse dollars into the facilities improvement budget. "I never expected to learn so much about sports turf management," reflects Ardolino. "But without that knowledge, I wouldn't fully appreciate what the grounds crew needs.

"Now I know it takes both knowledge and money to do the job right, that is why we decided to provide funds for trained athletic field specialists. I think universities today have to make a commitment to proper turf care if their athletic facilities are to remain safe and in use. Our dark days are over, and we intend to keep it that way!"

The Brouwer Trash-Pik™

The Trash-Pik™ is the innovative method for picking up litter at municipal locations, theme parks, airports, shopping malls, car parks and such places.

Some outstanding features:

- 18 h.p. two cylinder Kohler gas engine
- Closed loop hydraulic hydrostatic drive
- 200 degree nozzle operating arc
- Reverse air-flow to remove hose blockages or blow leaves or litter for easy pick-up
- The 8 cu. ft. litter container bag tilts back for easy unloading
- Heavy-duty, corrosion free fibre-glass body



Solve your litter collection problems, fast, efficiently.

Call your Brouwer dealer for more information or a demonstration...TODAY.

Woodbine Ave., Keswick,
Ont., Canada L4P 3E9
Tel. (416) 476-4311
Fax. (416) 476-5867

BROUWER™
TURF EQUIPMENT LIMITED
An Outboard Marine Corporation Company

7320 Haggerty Rd.,
Canton, MI. 48187
Tel. (313) 459-3700
Fax. (313) 459-8778

89-109P Copyright 1989 Brouwer Turf Equipment Limited.

Circle 102 on Postage Free Card

SIMPLIFY YOUR PRUNING!

MAIBO

**The Fastest, Lightest,
and Strongest Tree Trimming
Equipment in the World**

MAIBO, INC. MANUFACTURERS
Rt. 1, East Stone Drive
Kingsport, Tennessee 37660

1-800-331-2306

California

1-800-543-8694



**FINANCING AVAILABLE
DEALERSHIPS AVAILABLE**

COMPLETE SYSTEMS START AT \$99900

**Our Two Year Warranty Only
Applies When Sold By Our
Authorized Distributors.**

International Patent



Circle 103 on Postage Free Card

May, 1989 19