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## Thinking of a New or Improved Irrigation System? by Paul McMahon, Hydro Designs Inc.



s golf course irrigation systems have evolved in recent years to provide more extensive turf coverage with greater control, the

role of the irrigation designer in irrigation system planning and installation has changed. Many architects, owners, and superintendents that in the past relied on manufacturers, distributors or contractors for plans have cho-

tions; (5) bid support and contract administration; (6) field staking of system components; (7) inspection and punch list; (8) preparation of record drawings, and (9) irrigation system operation training and programming. While some of these services have been provided by manufacturers or distributors in the past, the advent of the more sophisticated system has made it difficult for the distributor to provide design and consulting ser-

vices effectively at little or no charge as the more traditional distributor support functions such as prompt delivery, field service and operator training have become more critical. Some of the services were unnecessary since many of the systems dating back ten

years or more were quite simple.

Professional irrigation consultants offer a number of advantages to their clients, the first being their ability to provide a professionally designed plan and specifications accompanied by bid and contract documents. It is the consultant's responsibility to reduce short term costs by eliminating questions or misinterpretations that may lead to contingency bidding and unexpected additional costs. Proper design techniques and product selec-

tion by a professional irrigation consultant can reduce long term operating and maintenance costs and extend the life of the irrigation system.

Many systems designed by consultants are based on more than one manufacturer's products. When employing an independent irrigation design consultant, many clubs realize significant savings by soliciting proposals from more than one material source. Often, the savings is significant enough to pay for additional coverage, more control flexibility, or an upgrade in fitting materials. Accepting proposals based on one design eliminates the need to compare multiple designs for differences in the number of sprinklers and valves, pipe sizing, pump station capacity, and a number of other factors which may influence the selection of an irrigation product. Designs by professional irrigation consultants typically depict identical coverage and piping for all manufacturers, and sep-

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sen professional irrigation consultants to provide design services and other technical assistance through the irrigation system budgeting, planning, selection and installation process.

Most professional irrigation consultants provide a wide range of services associated with the irrigation system design and installation including: (1) evaluation of the existing irrigation system; (2) water source testing/evaluation; (3) budget development; (4) preparation of design and specifica-

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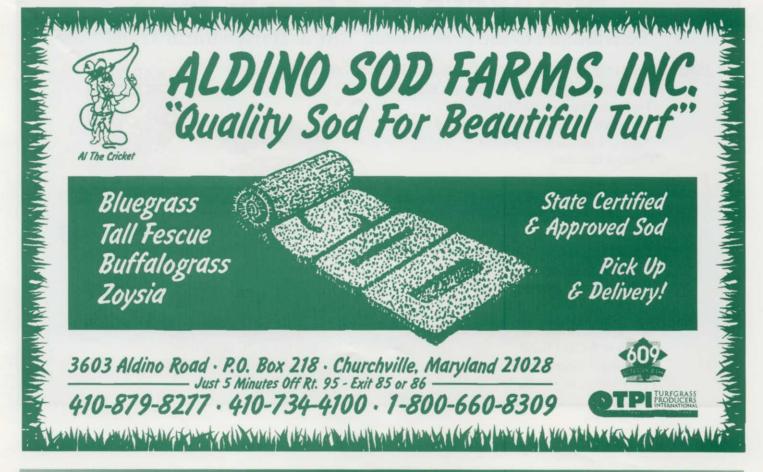
arate control system plans based on each manufacturer specified.

Researching products from sprinklers to control systems to pump stations can be confusing, especially when golf courses purchase a system once in twenty years. only Compounding the decisions regarding product are the necessary evaluations of suppliers and qualified contractors. With the ever changing number of options available for golf course irrigation systems, the professional irrigation consultant's familiarity with the market can help protect their clients from selecting substandard products, contractors, or suppli-Even options with regard to design must be considered (e.g. part circles for green surrounds, herring bone versus looped fairway laterals, main lines in the rough or fairway, single versus multiple heads per control station). Because an independent consultant's income is generated solely from fees, recommendations or decisions regarding design or selection of product, supplier, or contractor are made only with the best interests of the client in mind.

Using irrigation consultants to perform field staking of system components and inspection of work in progress has also become commonplace. Having performed the system design, the consultant is best qualified to make the interpretation of the design from paper to the field, better yet with assistance from the contractor and/or golf course superintendent. Combining field staking visits with inspection of the work in progress is an efficient use of the consultant's time and helps to make sure that the contractor's work complies with the intent of the drawings and specifications. The irrigation consultant's involvement allows the client to rely on a third party to: (1) inspect materials on-site for compliance with the specification; (2) ensure sprinklers, valves and controllers are installed at stake; (3) evaluate installation practices with regard to trench depth and compaction, wiring and splicing, and thrust blocking; (4) oversee or inspect pump station installation procedures especially construction of wet wells, intake pipes, and concrete slabs; (5) develop punch list items to be resolved by the contractor prior to completion; and (6) sign off on progress or final payment requests.

Although all parties benefit from the use of a professional irrigation consultant, the superintendent benefits most of all. Most superintendents do not have the time to fully investigate design techniques, products, and contractors in the planning stages of the project. They rarely have the time or expertise to properly evaluate proposals based on different designs provided by distributors and are often forced to turn to someone with a vested interest in the project decision for help on these evaluations. In relying on the professional irrigation consultant in the planning and design

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stages of the irrigation project, the superintendent often is able to more effectively lobby for the additional funds to provide more coverage, more flexible control, a VFD pump station, or other useful features such as weather stations or sensors and hand-held remote controls. Although most superintendents will take some part in the field staking and project supervision aspect of the project, a professional irrigation consultant has the experience from many projects to recognize problems or contractor mistakes and make proper decisions to resolve difficult issues.

In summary, hiring a professional irrigation consultant seems to benefit all parties involved. Clients that hire professional irrigation consultants do so to protect what is typically the largest single maintenance expense in the life of a golf course. Although these services must be paid for, the benefits usually outweigh the cost of the services. Professional irrigation consultants help their clients obtain the best value for the system with an eye towards minimizing long term maintenance costs and maximizing the expected life of the system. Superintendents benefit from having an impartial design source to help with recommendations and in project staking and oversight. By placing design responsibility in the hands of an irrigation consultant, the distributor loses a portion of its cost associated with the sale and can place more resources into providing the customer better product awareness, training, field service, and often better pricing. The contractor benefits from plans and specifications that completely project scope and detail. In short, projects designed by professional irrigation consultants lead to higher satisfaction for all involved parties, especially the Owner Superintendent.

## STUDENT Chapter News

By Andrea Bakalyar, President

The 1997 spring semester Golf Course Management students at the University of Maryland Institute of Applied Agriculture, formed their own chapter of the GCSAA. The chapter was formed by the combined efforts of approximately thirty students, Justin K. Mathias, Golf Course Management advisor and Rhys Arthur, CGCS a member of GCSAA.

The officer elections took place in February and the following students were elected to office: President – Andrea Bakalyar, Vice President – William Stowers, Secretary – Ryan Howard, Treasurer – Thomas Zimmerman, Chapter Liaison – Bryan Bupp, Special Relation Chairman – Erin Stevens and Chapter Representative at the Institute of Applied Agriculture – Kurt Long.

The first semester was spent organizing and developing the chapter that would officially be called The Maryland Student Chapter of the GCSAA. We held three official meetings. Glenn Smickley, CGCS of Robert Trent

Jones spoke to the chapter about hosting a major golf tournament, featuring a slide presentation of the 1996 President' Cup.

The officers met on August 5th and planned the chapter's fall activities. The chapter's largest concern is fundraising. We are making arrangements to have University of Maryland – Turf shirts made for alumni and students. The shirts and hats will be available for sale later in the fall and winter. Look for information in the next Turfgrass Matters.

Other activities this fall will include a Welcome Back picnic for turf students, a Fall Harvest Dinner and Hayride in October, and the chapter members will be attending the MAAGCS meeting on November 11th at Hillendale Country Club. The officer elections will be held at the end of September. Anyone interested in participating in the Maryland Student Chapter activities may feel free to do so, please contact the Institute at (301) 405-4692.

