

thought and numerous design studies. The process starts with a broad look at the best overall master plan and routing of the course and then narrows, focusing on the particular details and creation of each hole and its parts.

Evolution of a good design typically involves:

- ⊙ Exploring the different layout plans and hole routings.
- ⊙ Finding the best layout and routing.
- ⊙ Working out detailed grading plans for forming the site to the necessary grades, slopes and desired shaping.
- ⊙ Designing the details of tees, fairways, roughs, bunkers, water features, green complexes and the like.
- ⊙ Deciding on types and location of various grasses, as well as new tree plantings.
- ⊙ Designing an appropriate irrigation system.
- ⊙ Locating cart paths, designing cart bridges, retaining walls and highly landscaped areas.
- ⊙ Planning for the functional and sensitive siting of the clubhouse area.
- ⊙ Creating a pleasant indoor clubhouse atmosphere.

Good construction

Architects always hope that excellent design is followed by good construction. This is not always the case, however.

The seemingly never-ending construction process is where the long, hard work takes place and where little by little, the site is transformed into a natural arena for the game. Some may think it's just cutting down a few trees, flattening land and planting grass. A course may be built with these minimal expectations, but obvious and unimaginative results will follow. However, an experienced builder with a reasonable budget shares high expectations with the owner and the architect and has the know-how to accomplish the task.

Good construction requires understanding the design and the goals behind it. It's important for a builder and his staff to have broad experience with other sites on which to draw.

Good plans show the work and the finished product, but many times the details of the site (a majestic oak tree near a green of an unrealized view from a tee) suggest an alteration during construction. Conscientious builders and architects know when to consider changes.

Good construction also plans for and responds to the elements of nature. Rain and site erosion is common when soil is exposed for months as it is moved, worked, and re-worked. Using quality construction methods are a must — building greens according to current United States Golf Association specifications; using proven underground drainage pipe and quality irrigation components; supplying sufficient topsoil in turf areas; and using high-grade fertilizer, seed and sod.

When good construction occurs, there's usually a posi-



Good construction requires understanding the design and the goals behind it.

tive working relationship between the builder, architect and owner. In such cases, the builder may make an extra effort to finish the job well. The final intricate shaping and detailing of tees, fairways, roughs, bunkers, mounding and green surfaces are critical because it sets the look, feel and play of the course for years.

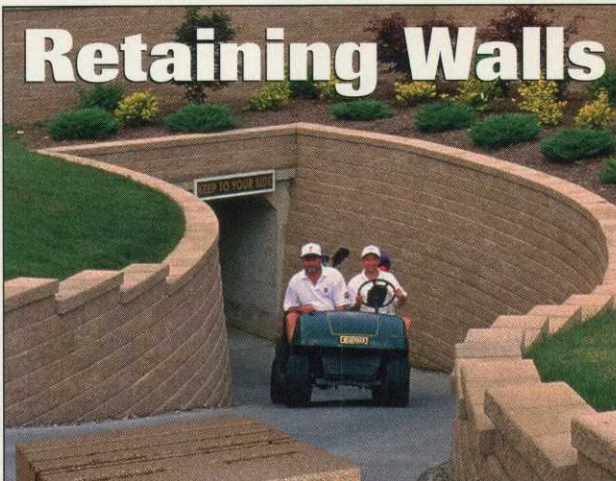
Good maintenance


So the construction of your course is complete. The bulldozers have left, the grass is growing and the clubhouse is almost finished. You have the first three ingredients for a great course. The remaining final ingredient is how well you manage and maintain this living environment.

On one extreme, you could spend more than \$750,000

Continued on page 75

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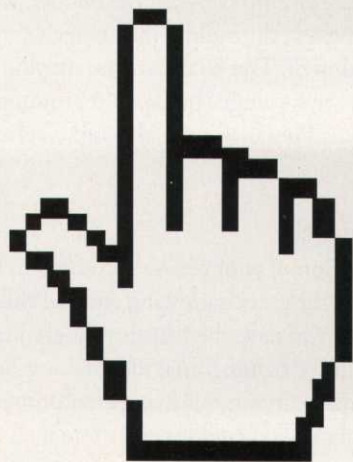
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SOLUTIONS, IDEAS & OPINIONS

Golfdom

March 2001

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- 07 60 Golf Course Architect
- 08 70 Golf Course Developer
- 09 90 Golf Course Builder
- 10 105 University/College
- 11 100 Others Allied to the Field (please specify) _____

2. Which of the following best describes your title? (fill in ONE only)

- 12 10 Golf Course Superintendent
- 13 15 Assistant Superintendent
- 14 25 Owner/Management Company Executive
- 15 30 General Manager
- 16 35 Director of Golf
- 17 70 Green Chairman
- 18 45 Club President
- 19 75 Builder/Developer
- 20 55 Architect/Engineer
- 21 60 Research Professional
- 22 65 Other Titled Personnel (please specify) _____

3. What is your facility's annual maintenance budget?

- 23 A More than \$2 Million
- 24 B \$1,000,001-\$2 Million
- 25 C \$750,001-\$1 Million
- 26 D \$500,001-\$750,000
- 27 E \$300,001-\$500,000
- 28 F \$150,001-\$300,000
- 29 G Less than \$150,000

4. If you work for a golf course, how many holes are on your course?

- 30 A 9
- 31 B 18
- 32 C 27
- 33 D 36+
- 34 E Other (please specify) _____

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103	115	127	139	151	163	175	187	199	211	223	235	247	259	271	283	295	307
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109	121	133	145	157	169	181	193	205	217	229	241	253	265	277	289	301	313
110	122	134	146	158	170	182	194	206	218	230	242	254	266	278	290	302	314
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112	124	136	148	160	172	184	196	208	220	232	244	256	268	280	292	304	316

Tips

Continued from page 71

annually on a maintenance budget with a large, qualified staff and ample modern equipment with attention to every detail. On the other hand, owners with modest expectations and budgets supply limited maintenance staff, equipment and expertise for costs under \$300,000.

The degree (and therefore cost) of maintenance practices should have been generally determined when you began the project. Aspects that have an impact on maintenance are:

- ⊙ Have you built a public or private course?
- ⊙ How many rounds do you expect?
- ⊙ Who are your typical golfers?
- ⊙ What do you expect to charge your customers? Obviously, many private and resort courses charge higher fees to maintain excellent conditions



Golfers will pay more to play well-maintained courses – and they'll enjoy their experiences more.

(which their customers demand), while smaller-market public courses operate on tight budgets which simplify their maintenance.

Some course designs demand high maintenance because of the types of grasses selected; the severity of slopes and mounding of turf areas, which must be cut by slower methods; the extent of fairways and rough area to be irrigated, cut, fertilized and aerated; the number of bunkers; and the special plantings of trees, shrubs, and flowers.

Good maintenance doesn't always

mean large budgets. It also depends on the type of course, and the wise decisions and practices of the superintendent. As an architect, I'm saddened to see a well-designed and built course go downhill because of poor care.

Golfers respond to well-maintained courses – they will pay more and play them more and enjoy their experiences more. ■

Grant Wencel is a golf course architect based in Lincoln, Neb. Two of Wencel's newest designs, Stone Creek and Eagle Hills, opened last summer in Omaha.

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Leaders

PEOPLE ON THE MOVE

Scott Boutilier was named business manager for Wellmark International's Zoecon Professional Products and Starbar divisions.

Western Golf Properties named **Randy J. Duncan** as director of golf for Heritage Palms Golf & CC in Indio, Calif.

Jeff Davis, superintendent at Sanctuary GC at WestWorld in Scottsdale, Ariz., won the 2001 Environmental Steward Award for the Cactus and Pine GCSA from the GCSAA.

The GCSAA will sponsor Senior PGA Tour professional **Jim Colbert** for the 2001 season.

Tim Kahle, a senior in turfgrass science at Purdue University, was awarded the \$5,000 Mentor Scholarship by the Midwest Regional Turf Foundation based on

NOTABLE ACHIEVERS

The following superintendents have achieved certification: **Timothy Deibel**, GC at Stone Links, North Little Rock, Ark.; **Mark Eisele**, The CC at Woodloch Springs, Hawley, Pa.; **Ryan J. Fisher**, The Coffin Club, Indianapolis; **Thomas Goodwin**, Pottawattomie CC, Michigan City, Ind.; **Douglass P. Larson**, Manufacturers Golf & CC, Fort Washington, Pa.; **Peter L. Natividad**, Branite Falls North GC, Surprise, Ariz.; **Donald Nunes**, Chicopee Municipal GC, Chicopee, Mass.; **Ken Renner**, The Greene CC, Fairborn, Ohio; **David J. Smallridge**, Sourwood Forest GC, Snow Camp, N.C.; **Alan B. Steichen**, Falcon's Fire GC, Kissimmee, Fla.; **Brian F. Thompson**, The Biltmore CC, North Barrington, Ill.; **Carl D. Thompson**, Moses Lake G&CC, Moses Lake, Wash.; and **Robert Waller**, The Georgian Resort, Villa Rica, Ga.

his academic performance, leadership in the student chapter of the GCSAA and work experience in the industry.

The Florida Turfgrass Association gave **Michael McLaughlin**, vice president of golfbusiness.com, the Wreath of Grass Award for service

in the Florida turfgrass industry.

The **Midwest Association of Golf Course Superintendents** is celebrating its 75th anniversary this year.

Gregory Hyland was named as chairman and CEO at Textron Golf, Turf & Specialty Products.

The Golf Course Builders Association of America elected seven builder members and five associate members to its board of directors. The new builder members are: **Larry Brown**, Bangor, Maine; **Glen Caverly**, Howell, Mich.; **Joe Niebur**, Colorado Springs, Colo.; **Gary Paumen**, West Palm Beach, Fla.; **Dave Ryan**, Ijamsville, Md.; **Tom Shapland**, Hercules, Calif.; and **Dale Siemens**, Fresno, Calif. The associate members are: **Steve Christman**, Brea, Calif.; **Rick Elyea**, Canby, Ore.; **O'Brien McGarey**, Denver, Colo.; **Tom Sasser**, North Palm Beach, Fla.; and **Jon Truttman**, San Marcos, Calif.

Let us know about your people on the move. Send information/color photos to Golfdom's Frank Andorka at 7500 Old Oak Blvd., Cleveland, 44130. Fax information to 440/891-2675 or e-mail to fandorka@advanstar.com.

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The **JRCO** 30-gallon Zero-Turn Sprayer is a tow-behind unit. Used with the the company's front-mount electric broadcast spreader, it can make a zero-turn mower into a complete application vehicle, according to the company. The sprayer has a 3.5-horsepower engine. The three-section breakaway boom has 5-, 8- and 11-foot spray patterns.

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Turfline offers its True-Surface Universal Design Vibratory Greens Rolling System, which features a single set of rollers that adapt to fit most triplex greens mowers in minutes. To fit a different mower, a superintendent must simply change the mounting hardware. Vibration rolling disperses dry sand from turf and saves reels and bed-knives, according to the company.

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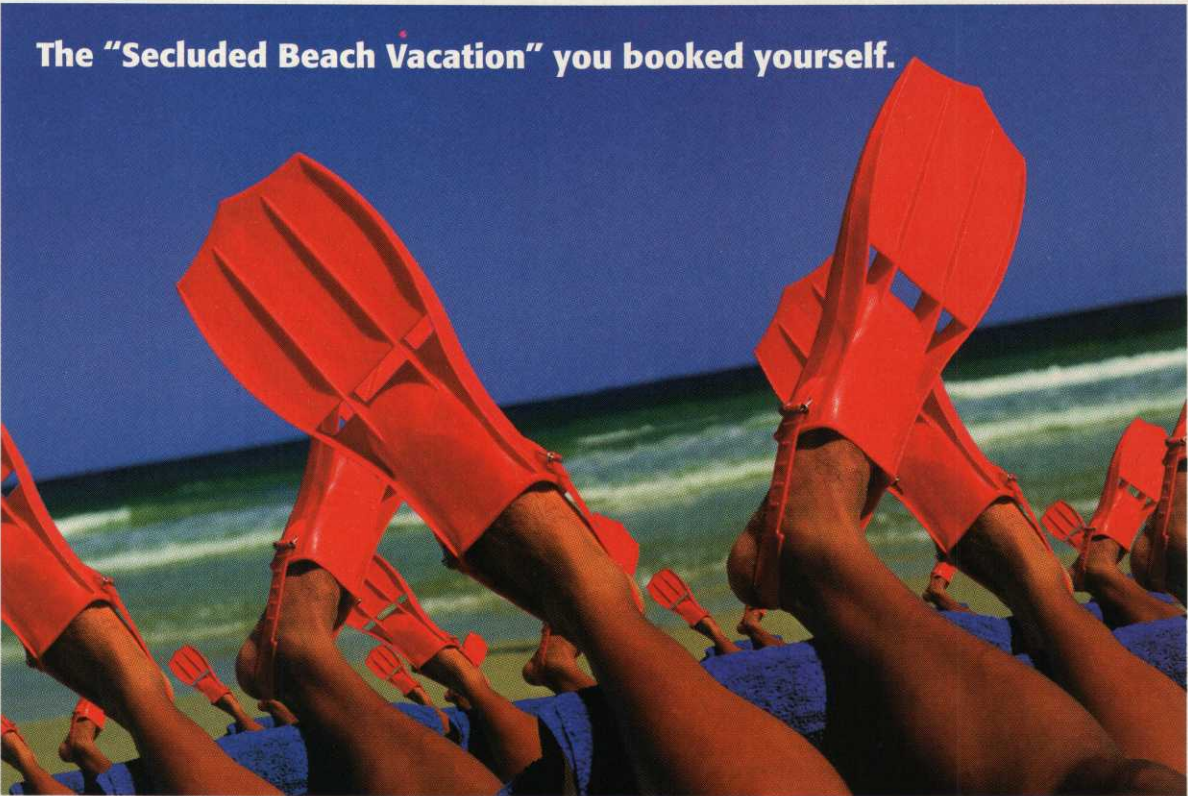
CTN Data Service offers Precision Course Management, a Global Positioning System mapping software package. The software gives superintendents the ability to GPS map their courses and track products (fertilizer, pesticides, etc.) applied to their courses. The software also features an equipment area for superintendents to track maintenance equipment and parts used in repairing the equipment.

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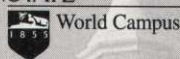
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