GOLF COURSE LIFE-CYCLE PLANNING
HOW GOLF HAS CHANGED

- Design
- Technology – golfer equipment
- Technology – maintenance equipment
- Golfer profile
- Construction materials & techniques
- Expectations - average golf courses have improved substantially.
- Competition – continue to try to raise the bar on quality.
Life Cycle of Golf Course Components

- Asphalt Cart Paths, Practice Range Tees, Bunker Drainage Pipes (5 – 10)
- USGA Greens, Concrete Cart Paths (15 – 30)
- Bunker Sand (5 – 7)
- Corrugated Metal Pipes (varies, approx. 15)
- Irrigation System—varies per quality (15 – 25)
- Mulch (1 – 3)
- Tees (15 – 20)

Number of Years From Installation to Replacement

- 0
- 5
- 10
- 15
- 20
- 25
- 30
- more
# THE EVOLUTION OF THE PINNABLE AREA

## How Greens Have Evolved

<table>
<thead>
<tr>
<th>Year</th>
<th>Slopes Around the Cup</th>
</tr>
</thead>
<tbody>
<tr>
<td>1925</td>
<td>6 to 8%</td>
</tr>
<tr>
<td>1960</td>
<td>5 to 6%</td>
</tr>
<tr>
<td>1976</td>
<td>Stimpmeter is introduced*</td>
</tr>
<tr>
<td>1980</td>
<td>Maximum of 4%</td>
</tr>
<tr>
<td>1988</td>
<td>Maximum of 3%</td>
</tr>
<tr>
<td>1996</td>
<td>Maximum of 2.5%</td>
</tr>
<tr>
<td>2004*</td>
<td>Maximum of 2.2%</td>
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</tbody>
</table>

* Based on stimpmeter reading approaching 12 to 14 feet in Tournament conditions. In 1976, the average stimpmeter reading on all PGA Tour courses was 7.6 feet.
### HOW LONG SHOULD PARTS OF A GOLF COURSE LAST?

<table>
<thead>
<tr>
<th>Item</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>USGA Greens</td>
<td>15 – 30 years</td>
</tr>
<tr>
<td>Bunker Sand</td>
<td>5 – 7 years</td>
</tr>
<tr>
<td>Irrigation System (varies per quality)</td>
<td>15 – 25 years</td>
</tr>
<tr>
<td>PVC Pipe (under pressure)</td>
<td>15 – 30 years</td>
</tr>
<tr>
<td>Cart Paths (asphalt)</td>
<td>5 – 10 years</td>
</tr>
<tr>
<td>Cart Paths (concrete)</td>
<td>15 – 30 years (or longer)</td>
</tr>
<tr>
<td>Practice Range Tees</td>
<td>5 – 10 years</td>
</tr>
<tr>
<td>Tees</td>
<td>15 – 20 years</td>
</tr>
<tr>
<td>Corrugated Metal Pipes</td>
<td>Varies (see manufacturer/15 years)</td>
</tr>
<tr>
<td>Bunker Drainage Pipes</td>
<td>5 – 10 years</td>
</tr>
<tr>
<td>Mulch</td>
<td>1 – 3 years</td>
</tr>
</tbody>
</table>
- Despite the costs at stake, people too often wait for golf course components to wear out rather than planning ahead.

- In reality, it is possible to plan and budget for necessary improvements that maintain quality playing conditions and healthy turf.
“If you don’t know where you’re going, you are sure to get there.”

-Dick Nugent, ASGCA Past President
Yet, the diligent planning process put into new golf course development is often not followed in remodeling projects.
LONG RANGE MASTER PLANNING

“DOES YOUR COURSE HAVE A MASTER PLAN?”
GOALS OF THE MASTER PLAN

- Hole-by-hole detailed analysis.
- Maintenance analysis/current conditions review
- Irrigation system check-up/status
- Suggested projects list and budget estimates
- Timeline schedule based on priorities/needs/budget
Phase I

Phase II
SAMPLE RECONSTRUCTION COSTS – EXISTING COURSES

U.S. Typical Costs – 2007

I. Rebuild an Existing Greens Complex $55,000 to $95,000
II. Rebuild Existing Bunkers $6,000 to $9,000 plus
III. Sod an Acre of Turf $12,500 to $18,730 per acre
IV. Build a New Tee $8,000 to $15,000
The American Society of Golf Course Architects

- ASGCA is helping golf decision-makers understand the importance of planning and its various components.
- We need to anticipate future course needs, rather than fix it when it breaks.
ASGCA ACTIVITIES REGARDING PLANNING

- New brochure on “Master Planning”
- Life Cycle handout
- “When to hire…” handout
- Remodeling University
- “Every course needs a golf architect” campaign
INDUSTRY ACTIVITIES REGARDING PLANNING

- Golf Industry Show “Solution Center”
- NGCOA/Golf Business
- GCSAA/Golf Course Management

How can we work together?
Thank You

-Rick Jacobson, ASGCA