CHAPTER ONE

DEVELOPMENT OF GOLF AND GOLF COURSES

Golf is a popular sport that has become a fixture of the American experience. It is a unique recreational sport in that it is participated in by many millions, but watched by even a larger number of enthusiasts.

Golf was designed to provide relaxation and opportunity for social interaction and exercise, but for some it represents a lifestyle. The number of golf facilities has grown and grown and grown over the past century; the sport has endured the vicissitudes of the business cycle and the business has now matured where the number of closures offsets the number of new projects.

For valuation purposes, a golf course or country club must be considered a business, not just an assemblage of physical assets. The analyst of such a property must possess unique skills: a knowledge of statistics, economics, design and management and the ability to value real estate, personal property and a business operation. These qualifications may appear overwhelming, but they can be satisfied through research and experience. Knowledge of the sport is a prerequisite, but extensive skill is not.

The objective of this text is to provide the user with information about the analysis and valuation of golf courses and country clubs. To be credible an appraiser or analyst should understand the sport and its terminology, be able to describe and categorize the various kinds of facilities, and conduct a thorough appraisal process employing as many as three approaches.

A first step is to understand the history of the game.

An Ancient Sport

Golf is native to Scotland, where it probably originated in the 15th century. A major role-player of the day was King James II of Scotland, whom we can thank for our first reference to the game, as he decreed in 1457 that “citizens should desist from playing golf.”

The popularity of the game gradually increased as courses were built and equipment was improved. A golf course at St. Andrews Scotland, is known as the cradle of the royal game.

The evolution of golf can be seen in the composition of golf balls. Changes in the game fall into four eras: use of feathery golf balls (1620-1850), gutta percha balls (1851-1900), rubber core golf balls (1901-1960) and hard core balls, which were introduced in 1961.

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Early Development in the United States

The game had an early impact on the United States where courses for the leisure class were founded along the Atlantic Seaboard beginning in 1780. A pamphlet written in 1772 provides an early description of the sport. “Golf is an exercise which is much used by the Gentleman in Scotland. A large common in which there are several little holes is chosen for the purpose. It is played with little leather balls, luft with feathers; and sticks made somewhat in the form of handy-wicket. He who gets the ball into a given number of holes, with the lowest strokes, gets the game.”

In 1887 the first permanent golf club and course was established at Foxburg, Pennsylvania. In the following year the first golf association was formed. In 1894 the Amateur Golf Association was created to establish uniform rules and conduct tournaments. Golf courses were being developed by private clubs, colleges and universities, mostly in the Northeast. By the end of the 19th century, approximately 950 golf courses existed in the United States, with at least one in each state. (For more details on the history of golf in the United States, refer to the bibliography.)

Golf Course Construction

Golf course construction in the United States has gone through distinct phases. There were approximately 1,000 courses in the early years of the century, but the number declined during World War I. In the Roaring Twenties, there was unparalleled growth, with approximately 550 new courses built each year between 1923 and 1931. A great golfer named Bobby Jones epitomized this period, which is sometimes referred to as the Golden Age of Sport.

During the Great Depression and World War II, golf course construction virtually stopped due to bad economic times and the diversion of resources to the war efforts in Europe and the western Pacific. In fact, there was a decline in the total number of facilities until 1946. Activity was sluggish in post-war years, but after President Eisenhower’s golfing endeavors were widely publicized, golf course construction surged.

Beginning in the 1950s, televised golf made stars of Arnold Palmer, Ben Hogan, Billy Casper Sam Snead, Jack Nicklaus, Tiger Woods and others. Residential developments with golf courses as the key amenity created explosive popularity for golf between 1959 and 1971. During this period a large number of nine hole courses were developed.

From the mid-1970’s through the mid-1980’s, between 100 and 150 new courses opened each year. The popularity of golf continued to grow, despite two recessions, unprecedented high interest rates and tight money. In the late 1990’s and through the mid-2000’s and another business cycle, golf course development started to slow down and course closures, while a small number, increased each year. Now golf has entered a new phase of weakened demand fueled by the recession of recent years and no growth in real income, among other causes.

2 Ibid, iv.
In 2000 one out of every ten adult Americans played some golf; in 2010, the figure was closer to one in twelve.

Types of Golf Courses

There are three basic types of golf courses: regulation, executive, and par 3. Regulation courses, the traditional type, are the most popular. An 18-hole regulation course should have a par, or difficulty rating of 72 and a length of 6,300 to 6,700 yards. The effective length from various tees can range from 5,200 to 7,200 yards (discussed in chapter 2) and a land area of 100 to 200 acres. Par ranges from 3 to 5 strokes per hole. The basic mix of holes for a par 72 course is 10 par 4’s, 4 par 3’s, and 4 par-5’s. A course with a par of 70 or 71 is acceptable if the size of the property or the nature of the terrain prevents the designing of four good par-5 holes. Total par should always be reduced by replacing one or two par 5’s with par 4’s. A regulation course should always have four par 3’s.

Executive courses are thought of as shorter regulation courses. They can be designed in limited areas and usually range in size from 40 to 75 acres with a length of 3,000 to 4,500 yards. Par ratings are generally between 58 to 68, allowing for a mixture of mostly par 3 and par 4 holes. Executive courses can provide the challenge of a regulation course at much less playing time.

In a par-3 course each hole has a par-3 rating for a total par of 54. The typical hole ranges from 75 to 240 yards and the total yardage is 2,000 to 2,500. These courses have a total area of 35 to 45 acres. Par 3 courses may be adjuncts to regulation courses, driving ranges and resorts, or stand-alone operations. They can be sized downward to “pitch and put” layouts, requiring as little as 10 acres with holes less than 100 yards in length. Such courses are played with as few as two clubs: a pitching iron or wedge and a putter.

Site Features

A regulation-sized course may be designed in one of six basic configurations:

1. Core course
2. Residential Community Course
3. Single-fairway, continuous 18-hole course
4. Single-fairway, 18-hole course with returning nines
5. Double-fairway, continuous 18-hole course
6. Double-fairway, 18-hole course with returning nines

With the various design options or combinations that are available, the shape of sites can be highly variable. When a large parcel of land is available and the golf course is part of a real estate development, design of the course requires its integration with surrounding land uses, typically single-family residential. There are no set rules that determine the ratio of golf course frontage to residential or resort parcels. Developers will attempt to maximize highest and best use, as measured by the internal rate of return (IRR). This is accomplished by achieving the highest pricing or profitability of the entire project in a balanced manner that doesn’t penalize one aspect or land use of a mixed project to the benefit of another. Golf course maximization is
measured through its acceptance by the target market in terms of playability, as well as its ability to maximize and enhance the pricing and marketability of the entire project. Topography becomes a critical factor in this process.

The slope and contours of the terrain determine the course layout and routing plan, especially when the course is associated with adjacent building sites. Fairways should be at the same or lower elevations than housing sites to promote visibility and safety elements. On undulating terrain, the course designer must determine the location of tees (on flat or cut-and-fill areas) and greens (in landing areas that are visible, not unduly hilly, and framed by natural or landscaped features). The optimal design will provide a variety of hole lengths, difficulty, and style. A combination of two par-3 holes, five par-4s, and two par-5s will yield a total par of 36 over nine holes. If they can be designed in a sequence of 4-5-4-3-4-5-4-3-4 or 4-3-4-5-4-3-4-5-4, no two consecutive holes will have the same par. This combination may be ideal, but it is atypical. The only firm criteria are that par-3 holes should not be at the beginning or end of the course (although there are exceptions) and fairways should be spaced to avoid backups.

The basic utilities required for a golf course project or country club include electricity, domestic and irrigation water, and a sanitary sewer or septic system. Because water to irrigate the course is essential, the adequacy and quality of the water supply must be thoroughly investigated and validated. Typical sources of water include local water companies; on-site wells, canals or aqueducts; lakes or streams; and effluent from waste water treatment plants. Except for the latter source, which has become generally more acceptable, public water sources tend to be too expensive.

The securing of sufficient water over a long period of time may be a critical problem for proposed courses and some existing courses where climatic factors have resulted in water shortages or fluctuations in area supplies. Actual water requirements as well as pumping costs can vary greatly. An 18-hole, regulation-sized course may use between 250,000 and 500,000 gallons per day depending on the amount and type of ground cover, climatic conditions, and the means of irrigation. Desert type courses often require 1,000,000 gallons per day during the summer.

The appraiser should consider the status of current and future water supplies, potential alternative sources, and factors that may result in future restrictions or supply interruptions. Competition for water sources will increase in the future, resulting in higher water costs for most projects that depend on an outside source.

One important positive trend is the use of treated effluent for golf course irrigation. In many cases the disposal of wastewater is a problem for local sanitation districts. It can be quite cost-efficient for a golf course developer or operator to make use of this water. In some cases the ability to develop a course has hinged on the availability of treated effluent. Wastewater treated to a secondary level is the typical requirement.

Soils of all types can support golf course construction, but differences in soil quality can greatly affect development costs and operating expenses. The best soils are alluvial, sandy loam types which have good drainage characteristics and support healthy turf and ground cover. Soils that
are rocky, clayish, mucky, or gravelly are undesirable because they can result in drainage problems, higher construction costs, and/or excessive maintenance expenditures. In recent years some golf courses have even been built on lava fields such as those in Hawaii, but at great expense.

Courses are sometimes developed in floodplains and seasonal wetlands when more desirable sites are not available. The advantage of a lower land cost may be offset, however, if the course is unplayable during certain wet periods, and maintenance costs are high. Design features such as crowned fairways and drainage systems can overcome many of the problems of low-lying land and improve the appearance of a property.

Geographic conditions in the U.S. divide golf course locations into two general categories: Frostbelt and Sunbelt (Figure 1.2). The length of the playing season in these locations can vary by many months, which affects the number of rounds played and income and expense performance.

**FIGURE 1.2**

![Map showing Frostbelt and Sunbelt regions in the U.S.](image)

*Note: The Sunbelt Regions include 3, 4, 5, 6 and 10. All states north of the Sunbelt are in the Frostbelt.*

This general discussion of site characteristics is only a starting point for the serious analyst. Many factors must be considered in selecting and describing a golf course site. Site factors can play an important role in the estimation of land value and in any comparisons made between golf course sales and a subject property.

**COURSE CHARACTERISTICS**

Golf courses are designed to meet the requirements of a specific market or markets. Typical or desirable features for regulation courses designed for specific markets are described below:

**Municipal Courses**
The simplest of courses, municipal golf courses, are designed to accommodate heavy daily play throughout the year or season and to appeal to a wide variety of players. Typically a core design is used with emphasis on playability and enough complexity to challenge a wide range of players. These courses tend to be flat and have few rough areas where balls can be lost. Development and operating costs are typically low due to the concentration of the irrigation system, easy mowing, reduced landscape maintenance, and fewer obstacles. Municipal courses are shorter than most (approximately 6,000 to 6,500 yards) and fairways tend to be wide.

**Resort Courses**

Resort courses are the most complicated type of courses. They are designed to appeal to serious golfers, but also serve as a marketing tool to attract a broader market of group and convention business or related housing development. Resort courses are distinguished by memorable holes, scenic beauty, a feeling of privacy or spaciousness, “signature” designers, lakes, and a variety of hazards. They usually feature a core or sprawling double-fairway layout through housing or accommodation units and have high construction and maintenance costs.

**Retirement / 2nd Home Community Courses**

These courses are typically located in rural areas within a 1-2 hour drive from a city with a commercial airport. The typical player at such a course is older, but plays often, so the course should not be situated in difficult terrain. These courses are shorter, have wide fairways for faster play, and may be challenging in terms of visibility and the placement of hazards. Retirement community courses range from 5,500 to 6,500 yards in length. They may have a single- or double-fairway layout to maximize frontage along surrounding land should be easier to maintain.

In addition to these three basic course categories, desirable characteristics may be combined to produce hybrids and variations. For example, a semi-private course in a residential setting might include features to attract a wide market without compromising playability and the need for challenging holes. Where land is available and market dynamics warrant it, a 27-hole course can be built to provide three distinct, 18-hole combinations designed to appeal to players of varying expertise. Generally, 27-hole facilities increase golf course capacity by two-thirds, but are only 50% more expensive to develop.

The objective of development is to realize the highest returns achievable from a particular piece of land.

**DESCRIBING THE COURSE**

To describe and analyze a golf course for valuation purposes, an understanding of its functional parts is needed. A typical hole includes a tee, fairway, green, rough, and hazards (see Figure 1.3). These elements are combined in different ways to form unique golf courses. Once the appraiser has a basic understanding of golf courses, one can develop the ability to describe, critique, compare, and rate them through practice and exposure to a variety of facilities.
Tees

As the starting point for each hole, a tee must be carefully placed and sized. Because tee shots generally range from 150 to 250 yards, it is desirable to have three or four sets of tees at varying locations to meet the needs of a wide range of golfers. The tees are often spaced over a distance of approximately 25 to 75 yards and identified as gold (for a drive of 250 yards), blue (for a drive of 225 yards), white (for a drive of 175 yards), and red (for a drive of 150 yards). A good design relates the overall size of tees to the number of annual rounds; there is a direct relationship between the amount of play and tee damage or wear and tear. A general rule of thumb is 100 to 200 square feet of tee surface for each 1,000 rounds played per year. Tees should be level and planted with sturdy turf.

Designing a tee requires careful consideration of a number of factors: proper soil and drainage, adequate exposure to sunshine and air movement, limited slope for mowing purposes, and appropriate fairway orientation to minimize damage to adjacent property from errant drives.

Tees are subject to a great deal of hard use and need constant attention. When they are sized properly, the tee markers can be frequently changed to allow for an even distribution of wear. Tees on par – 3 holes should be twice the size of others since iron shots cause divots and destruction of the turf at a far greater rate than at par-4 or 5’s.

Fairways

The fairway is the playing area between the tee and the hole. It is generally 40 to 65 yards wide and surrounded by rough consisting of longer turf grass, tall natural grasses and weeds or unplanted natural terrain. The combination of the fairway and rough can reach 100 yards in side dimensions. The playing area of each hole is designed in accordance with critical principles that are not apparent to most players. Fairway length determines par: up to 250 yards for a par 3 hole, up to 470 yards for a par-4 hole, and more than 470 yards for a par 5 hole from golf tees. Fairway width can vary greatly. In-ground markers indicate the distance to the hole.

Narrow fairways require greater expertise; wider fairways favor less talented golfers. Landing areas, where most golf shots should fall, are planned at predetermined distances from the tee. Where the surrounding area is wooded, the fairway should be wider. Rough areas need to be carefully planned because they result in increased playing time. They can, however, materially reduce the costs of course construction if they are interspersed and extended between planned landing areas that are planted with turf, as in a traditional links design. The placing of hazards materially affects the difficulty or rating of the hole and the speed of play. Design safety elements are shown in Figure 1.4.

A path for golf cars may be an integral part of the fairway design. Such a path usually runs parallel to the length of the fairway, except where there are obstacles, and should be situated to follow the contours of the topography. Paved paths are necessary for courses that receive a great deal of play and in areas that receive a lot of rain. The surface of the path may consist of gravel and rock, asphalt or concrete over a base, or dirt. A low-cost surface may produce initial
savings, but could require excessive maintenance due to wear and tear, drainage problems, or exposure to the elements. Golf car paths are typically five to eight feet wide and approximately 20% to 40% longer than the course, when they run throughout the course, but many courses only have golf car paths over portions of the course, usually near the tees and greens.

Routing Rules

The following list is useful in analyzing the routing of a golf course. None are sacred, but they do work well when a conventional layout is desired:

1. The starting holes, the first and tenth, should play rather docile to get golfers moving. A rather short par 4 with a few hazards on the slice slide (for right-handed golfers) and a rather gentle green is ideal. Likewise, so is a medium-long par 5 where players can safely hit second shots without fear of reaching and disturbing golfers on the green. Short par 5’s should be avoided.
2. Unless the course is strictly private, the first and tenth tees should be positioned near one another so one starter can control play off both tees.
3. If possible, the first par 3 should not occur until the third or fourth hole in order to keep the play from bogging down.
4. There should always be adequate safety buffers between adjacent holes.
5. There should not be more than 100 yards of travel between a green and the next tee.
6. Anticipated impact areas should permit a group to view players ahead.
7. A golfer should be able to see the second landing area or the putting surface from the normal shot distance on holes that play uphill, so upward grades should be at 4% or softer.
8. Where possible, long uphill climbs should not exceed 5% slope so that a golfer of average health can walk the course without undue exertion. Also, no uphill slope over 10% should be more than 100 yards, if at all possible.
9. All slopes that are to be maintained by power riding equipment should not exceed 40%.
10. Since a majority of golfers slice the ball, the course should be routed so that few or no out-of-bounds or penal hazards are on the right side of any hole. This means that the course normally flows in a clockwise fashion.
11. A good middle-distance for an 18-hole golf course is about 6,300 yards, but the course should be able to stretch to 7,000 or more from the pro tees and be as short as 5,000 from the front tees. Five sets of tees are preferred, with one set providing a total length of about 5,600 yards and the blue markers giving a course of about 6,700 or so.
12. Green and tee sites should be appropriately sized to the anticipated wear they will receive and the shot being played to them. They should remain in scale with their surroundings.
13. Harsh hazards should be visible or their locations indicated so that golfers may elect to either risk or avoid them.

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4 Hurdzan, Dr. Michael J. Golf Course Architecture, Design, Construction and Restoration. (Sleeping Bear Press, 1996) pp. 221-222
14. Great diversity in the length of holes should be provided so that every club in the bag will be tested and monotony avoided.
15. Space should be provided for practice putting greens and, if possible, a practice range with a large tee of one acre or more. Given the choice between a big golf course with a small learning center and a shorter course with a larger learning center, it is best to provide for the larger learning center. Not only do good players demand a place to further improve their game, but learning centers also permit beginners to develop their rudimentary skills.
16. Avoid middle distances of par 3’s greater than 200 yards, par 4’s less than 300 yards and par 5’s greater than 550 yards.

Greens

The putting area of a hole, or green, is carefully manicured to provide an even surface. Golfers need to study the terrain when putting because greens usually have a slight slope (for visibility and drainage) and grass has surface irregularities. Typical greens range in size from 3,000 to 5,000 square feet, but some may be larger; smaller greens are suitable for short approach shots; larger greens, which may range up to 1/3 acre in total area, are needed where the shape of the course is highly variable, and gets heavy play, or the typical approach is long or difficult. The size of the green should be adequate to allow for frequent changes in the location of the cup so that wear and tear on the surface is evenly distributed.

Greens vary not only in size and shape, but also in the variety of hazards that surround them. Most golfers, as well as course designers and architects, believe that the green should be contoured and visible from the location of the typical approach shot.

The construction of greens requires careful subsoil and drainage preparation. The site is prepared to a depth of eight to 24 inches with layers of gravel, sand, and soil mix over drainage tiles. The Greens Section of the U.S. Golf Association establishes specifications for site preparation. In preparing a golf course appraisal, attention should be given to the quality and condition of the greens because this is where the typical golfer spends a large percentage of his or her playing time. Greens are a key item in the rating of a golf facility.

Practice Range

Two-thirds of the golf facilities in the U.S. have a golf practice range, with the following features:
TABLE 1.1 – PRACTICE RANGES

<table>
<thead>
<tr>
<th>Feature</th>
<th>All Ranges</th>
<th>Those Built in Last Three Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Night Lights</td>
<td>51%</td>
<td>62%</td>
</tr>
<tr>
<td>Putting Green</td>
<td>58%</td>
<td>51%</td>
</tr>
<tr>
<td>Short Game Area</td>
<td>43%</td>
<td>51%</td>
</tr>
<tr>
<td>Teaching Pros on Staff</td>
<td>38%</td>
<td>43%</td>
</tr>
</tbody>
</table>

By type of golf course, nationwide data shows that 78% of private facilities have them, followed by daily-fee facilities (61%) and municipals (58%).

The average on-course practice range has 24 tee stations. Where there is inadequate land, a substitution cage with six stations can be installed in a space as small as 6,500 sq. ft., however, these facilities do not provide an equivalent experience. Teaching pros employ video components in an indoor setting to analyze and improve a golfer’s swing.

Hazards

Sand bunkers, lakes, rough areas, ditches, and trees are typical golf course hazards. Hazards can be natural or man-made features designed for a particular purpose. They make a course more challenging and some can provide other functions such as water storage, drainage, boundaries, and visual beauty. Their placement is important to the function of the game and can greatly influence the speed at which the typical golfer plays. Hazards add to the development and maintenance costs of a course.

Type of Holes

Individual hole styles fall into four broad categories: penal, strategic, heroic and freeway. The first three are illustrated in Figures 1.5, 1.6 and 1.7.

Most golf holes have a strategic style, which means that golfers can select various means to reach the hole depending on their skills and the location of hazards. Strategic holes have wider fairways, but offer alternative routes to the green such as a shot over a hazard that can reward the golfer with a lower score. To play penal holes all shots must go directly over hazards such as lakes, sand bunkers, or rough areas. Errant shots result in penalties, lost balls, and increased playing time. Courses with penal holes tend to be designed for expert golfers and professional tournaments. Heroic golf holes represent a combination of strategic and penal styles. Their inclusion in a regulation course provides variety and challenges. Heroic holes are usually long holes over a water hazard that reward the successful golfer with the opportunity for a subpar score. Alternative routes (e.g., around the lake) are available for less skillful players and usually result in over-par scores.

A product of the post WWII period when throngs of people wanted to take up the game, freeway holes were simple to design, characterized by straight and parallel edges, tree-lined flanks, and
uniformity. Owners liked them because they encouraged a high number of rounds. Today’s designers avoid the use of freeway holes.

Well designed golf courses provide a blend of styles with many strategic holes and a few that are heroic in nature.

Course Ratings

According to the U.S. Golf Association, par is “the score a scratch golfer would be expected to make for a given hole. Par means errorless play without flukes under ordinary weather conditions, allowing two strokes on the putting green.” Par is also a range of horizontal distances for men and women that should not be applied arbitrarily, allowing for the configuration of the ground, difficult or unusual conditions, and the severity of hazards. A par 3 hole allows for one shot off the tee to reach the putting green plus two strokes on the putting green; a par 4 hole allows for two shots to reach the putting green plus two strokes on the putting green; and a par 5 hole allows for three shots to reach the putting green plus two strokes on the putting green.

The U.S. Golf Association suggests the following yardages for computing par:

<table>
<thead>
<tr>
<th>Par</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Up to 250 yards</td>
<td>Up to 210 yards</td>
</tr>
<tr>
<td>4</td>
<td>251-470 yards</td>
<td>211-400 yards</td>
</tr>
<tr>
<td>5</td>
<td>471 yards and over</td>
<td>401-575 yards</td>
</tr>
</tbody>
</table>

Slope is the measure of the difficulty of obstacles and hazards encountered on a golf course that was also developed by the United States Golf Association. It takes into account the placement of hazards and the degree of difficulty of a hole within 150 yards of the green. Distance is only part of the formula. The higher the slope rating the tougher the course for average golfers. Slope rating also makes an average golfer’s handicap portable. More strokes are given on the courses with the higher slope rating, fewer strokes on those with a lower rating.

Irrigation System

Climatic conditions dictate the size and complexity of golf course irrigation systems. Practically all modern systems are computer controlled for great efficiency. Double-row systems with lines on each side of a fairway are popular, but in a wet climate, a less costly single-row layout down the center of a fairway may be adequate. Irrigation lines should be strategically placed based on the terrain and design of the course. Sprinkler heads are spaced so that the water coverage of the heads overlaps to the extent that 100% of water needs is achieved. Automatic systems are solely used because of the savings in labor costs. Where they are not found, a measurable deficiency is indicated. A storage system developed through a staged series of interconnected lakes can provide a continuous flow of water to the sprinkler system, which might not be possible with a typical combination of wells, pumps, and tanks. Rolling terrain may allow placement of a tank to achieve savings through gravity flow.
An appraiser valuing a golf course should obtain information about the irrigation system – i.e. linear feet of lines, number of sprinkler heads, number of valves, size and number of pumps and wells, and type and capacity of the storage system. The appraiser should also examine the system to understand the amount of accrued depreciation and estimate annual reserves for replacement.

**The Clubhouse**

The type of golf course and the objectives of the owners will dictate the size of the clubhouse and its facilities. A brief checklist is provided in Table 1.2. Functional considerations must be carefully analyzed before a commitment is made to design and build a clubhouse. Inappropriate clubhouses exist wherever there are golf courses, and many of these structures have incurable problems.
Table 1.2

Functional Components of a Clubhouse and Other Structures (in Square Feet)

<table>
<thead>
<tr>
<th>Clubhouse Component</th>
<th>Municipal Course</th>
<th>Daily Fee Course</th>
<th>Country Club Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pro shop</td>
<td>500</td>
<td>1,000-1,500</td>
<td>1,500</td>
</tr>
<tr>
<td>Office/administration</td>
<td>100</td>
<td>250-400</td>
<td>1,000-1,500</td>
</tr>
<tr>
<td>Storage</td>
<td>250</td>
<td>450</td>
<td>500-1,000</td>
</tr>
<tr>
<td>Snack shop*</td>
<td>450</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Bar and grill</td>
<td>--</td>
<td>750</td>
<td>750-1,000</td>
</tr>
<tr>
<td>Dining room</td>
<td>--</td>
<td>--</td>
<td>4,000</td>
</tr>
<tr>
<td>Banquet room</td>
<td>--</td>
<td>--</td>
<td>0-6,000</td>
</tr>
<tr>
<td>Kitchen</td>
<td>--</td>
<td>400-1,500</td>
<td>2,500</td>
</tr>
<tr>
<td>Card/meeting room</td>
<td>--</td>
<td>--</td>
<td>2,000</td>
</tr>
<tr>
<td>Locker rooms</td>
<td>--</td>
<td>1,500-5,500</td>
<td>5,500-9,500</td>
</tr>
<tr>
<td>Fitness area</td>
<td>--</td>
<td>--</td>
<td>2,500-4,000</td>
</tr>
<tr>
<td>Car and bag storage</td>
<td>3,000</td>
<td>5,500</td>
<td>7,500</td>
</tr>
<tr>
<td>Subtotals</td>
<td>4,300</td>
<td>9,850-15,600</td>
<td>27,750-40,500</td>
</tr>
<tr>
<td>Maintenance building</td>
<td>2,500</td>
<td>6,000</td>
<td>6,000</td>
</tr>
<tr>
<td>Shop/garage</td>
<td>--</td>
<td>2,500</td>
<td>3,500</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>200</td>
<td>650-900</td>
<td>750-1,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7,000</strong></td>
<td><strong>19,000-25,000</strong></td>
<td><strong>38,000-51,000</strong></td>
</tr>
</tbody>
</table>

* Includes restrooms

Additional areas that could be part of a clubhouse include:
- Control fee collection
- Changing room for pro shop
- Steam rooms
- Saunas
- Whirlpools
- Attendats’ storage space
- Lounge
- Ancillary kitchen facilities
- Service pantry
- Library
- Nursery/children’s room
- Boiler room
- Patios/terraces
- Car maintenance
- Mechanical Rooms
- Employee lounge
- Maintenance offices
- Linen/janitorial
- Cold storage
- Dry storage
- Service corridor/transport
- Wine Storage
- Loading dock
- Service pantry

Source: AGI Valuations

Because of high construction and operating costs, clubhouse architects must maximize the utility and flow of each square foot of building area. In today’s environment, smaller is better. Efficient management can then direct and control the workforce to minimize operating expenses.

Table 1.2 also lists most rooms or functional areas that may be included in a clubhouse. Within each area a number of specialized activities may be conducted. A kitchen, for example, could conceivably include a chef’s office, receiving area, dry storage area, meat and vegetable coolers,
freezers, hot food preparation area, salad and dessert area, raw food preparation area, bakery, ice machines, dishwashing area, pot and pan washing area, serving stations, and garbage room.

More mistakes are probably made in clubhouse design and sizing than in any other aspect of golf course development. In the recent past some upscale clubs with no insight into the negative economics of excessive size, built clubhouses of up to 70,000 square feet at costs exceeding $500 per square foot. Such grandiose investments of capital usually lead to excessive obsolescence.

On a practical level, clubhouse architects should be able to analyze the specialized needs of the users of a facility through systematized research. Once the functions of a proposed clubhouse are determined, the analyst, in consultation with architects and other specialists, can estimate what percentage of the club membership or playing public will be engaged in each function and the frequency of use over a specified time period as a method of optimizing the available funds.

There are no hard-and-fast rules for determining clubhouse functions, but general concepts and probabilities can be cited. Obviously, all golf courses need a sheltered area for the collection of fees and the starting of play. The size of the pro shop, bar, café, snack shop or restaurant at a golf course is determined by studying competitive properties, the size and affluence of the membership, and the overall objectives of the management or owners. Overdevelopment of food and beverage facilities is a common problem in country clubs. In a well designed resort complex, facilities such as restaurants, lounges, lockers and showers, kitchens, and offices can be provided by a hotel that is part of the project.

The financial analysis typically involves three primary clubhouse related revenue-producing departments: pro shop sales, food and beverage sales, and golf car rentals. With few exceptions, the performance of the clubhouse as a functional unit of the golf course or country club is reflected in the income and expenses generated by these three departments. The financial viability of a clubhouse can be evaluated with careful cost accounting and analysis of the net gains or losses of individual departments.

In the application of the cost approach, economic data on clubhouse operations is needed to identify appropriate categories and amounts of depreciation and external obsolescence. These data are also needed in the sales comparison approach to adjust for differences in clubhouses and other amenities of sale properties and the subject property. Such comparisons depend on relative measures of productivity, which may be based on pro shop sales per member or per round, food and beverage sales per square foot, per seat and/or per round, and golf car rentals per member or per round.

It is prudent to undersize a clubhouse if there is any question about its ultimate service requirements. Designing a clubhouse for expansion over its projected life cycle is difficult, but this is preferable to building a facility that is too large or elaborate.
OTHER IMPROVEMENTS AND FACILITIES

A golf course and clubhouse cannot exist without a substantial number of ancillary land improvements and buildings. At a bare minimum, a course must have golf car storage space, which is frequently found on the lower or basement level of the clubhouse,\(^3\) and a maintenance building for the storage of equipment and supplies such as fertilizer. Additional structures may include a starter’s station, repair shop, a guard shack, rest stations, and pump houses. Regulation courses typically have up to 8,000 square feet of enclosed storage area, usually in a prefabricated metal structure, outside of view, but efficiently sited.

Other outdoor recreational facilities associated with country clubs, exclusive real estate subdivisions, and resorts include tennis courts and swimming pools. These activities may be housed in separate clubhouse facilities with dressing rooms, a snack bar, office, restrooms and lounge. Fitness facilities are common or considered to be a must for non-golf members and should be sized and equipped to maximize their use by adults. Other site improvements on a golf course include parking lots, practice area, service and entry drives, landscaping, and outdoor lighting.

Parking standards vary throughout the nation. Here is a partial list from various sources:

- 1 space for each 3 persons based on the maximum anticipated capacity of all facilities capable of simultaneous use as determined by the director of community development (Coconino County, AR): Arkansas
- 1 space for each 3 members (Bedford, NY): New York
- 1 space per member or family member (Niagara Falls, NY): New York
- 1 per employee, plus 4 per golf green (Charleston County, SC): South Carolina
- 1 parking space for each 2 members, or accommodations such as lockers or seating capacity, whichever is greater, but not less than 4 parking spaces for each 1 hole, plus 1 parking space for each 3 seats in dining, bar and rooms for assembly (Platte County, MO): Missouri
- 1 space per 4 members based on maximum anticipated membership, plus 1 space per 2 employees on the major shift (Smithfield, VA): Virginia
- 1.3 off-street parking spaces per gross acre (San Juan Capistrano, CA): California

FURNITURE, FIXTURES AND EQUIPMENT

In any analysis or valuation of a golf course, real property aspects of the project are emphasized. However, every golf facility includes a significant investment in furniture, fixtures and equipment (FF&E), especially course maintenance equipment. It is common for a facility to have a variety of furniture in the lobby, office, and dining areas; office and kitchen equipment; pro shop furnishings; and maintenance tools and equipment.

Golf cars are among the personal property included in the FF&E category. They can represent a large capital investment, but many clubs lease golf cars and other major items to reduce the

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\(^3\) Outdoor storage of golf cars in the Sunbelt is infrequent, and may result in higher maintenance costs over the typical life cycle of a car, but it is found in unexpected locations (e.g., at a resort course) and should not be considered as a significant detriment.
amount of equity needed to develop and operate the course (see heading below). The leased items become an expense rather than a depreciable asset.

The total cost or value of FF&E as part of a going-concern can typically range from 7% to 10% of total assets. The market tends to dictate that the return on FF&E will be higher than the return required for real property. Moreover, furniture, fixtures, and equipment have a much shorter average life expectancy, typically five to ten years for individual items.

An appraisal should include an itemized inventory and estimate of overall depreciated value for the FF&E. This subject is discussed in relation to the valuation approaches in the chapters dealing with the three approaches. A sample equipment inventory for a new course is shown in the Appendix.

**GOLF CAR AND EQUIPMENT LEASING**

Once a golf course owner has selected the equipment for the golf course (including golf cars, maintenance equipment, etc.), how will the cost be paid? If affordable, cash is one option but it depletes capital resources that may be better utilized elsewhere. A bank loan can be obtained, but such a loan will impact available credit and cash reserves, plus banks seldom provide 100% financing. That leaves the option of leasing, considered by most golf course developers and operators as the preferred alternative.

In 1990 only about one-third of golf cars were leased, but by 2012 the percentage is probably closer to 75%. Manufacturers like leasing because it creates a “trap-in” situation for the lessee who will tend to continue to do business over a long term with the lessor based on nuanced lease provisions relating to the lessee’s particular circumstances. Such leases can include maintenance and service clauses and special payment considerations based on the lessee’s seasonal cash flow.

Most golf car companies offer two standard types of leases. The “operating lease” requires no purchase obligation at the end of the lease and the original equipment is simply returned to the lessor. The “capital lease” is more complicated because it provides for ownership of the equipment by the lessee at the end of the lease. Further, it provides for a bargain price at the end of the lease and the lessee usually has the option of making somewhat higher payments along the way to significantly decrease the eventual payoff number. Other variations of this type of lease provide for new equipment after a subscribed period (at an adjusted rate), ensuring that the golf course operator has access to the latest technology and performance capabilities of golf cars and maintenance equipment.

Great care should be exercised when deciding to lease or buy FF&E. Considerations include initial and ongoing capital outlay, tax implications, service/maintenance issues, and overall compatibility of the product with the needs of the golf operation.

**USES OF A GOLF FACILITY RATING FORM**

To facilitate a golf course appraisal, a consistent format should be applied to the comparison of rental and sales data, green fees, and other golf course characteristics.
Golf course analysts can use the golf course rating data to study the competition and identify the special benefits and unique aspects of a particular golf course facility. Rating data can assist in the preparation of a capital improvement program, help to identify deficiencies, and provide a reference for future market research.

The golf course rating form shown in Figure 1.8 illustrates the type of information that should be gathered in analyzing competitive golf courses through a personal visit, telephone interview or knowledgeable parties. To the extent of the scope of the assignment.

**Figure 1.8**

**Golf Course Rating Data**

Name: _______________________________________________

Address: __________________________________________

City/Metropolitan Area: ___________________________

No. of holes: ___________________ Acres: __________

Par/course rating: _______________ Slope: __________

Annual rounds played: This year (est.) ____________

Description of buildings:

<table>
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<tr>
<th>Type</th>
<th>Sq. Ft.</th>
<th>Condition/Design</th>
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Course Description __________________________________________

What is their Target Market? _________________________________

List of Amenities: (please check or list)

- Practice green __________________
- Chipping green __________________
- Lockers __________________
- Restaurant __________________
- Bar/lounge __________________
- Rain shelters __________________
- Drinking water (on course) ___________
- Tennis courts __________________
- Other (list items) _______________________________________

Course Rating: Use 1 to 5 points for each:

Excellent = 5; good = 4; average = 3; fair = 2; poor = 1

Greens/fairways ______ Clubhouse/pro shop ______

Tees/range/hazards ______ Trees/scenic beauty ______
SPECIAL ENVIRONMENTAL CONSIDERATIONS

Proposed golf courses must satisfy planning and zoning requirements and meet environmental challenges. Environmental impact studies are required in many jurisdictions. Organized opposition to golf courses usually relates to the use of pesticides and fertilizers; the loss of open space, farmland, or wildlife habitat; and the inappropriate use of water.

Some of these problems can be alleviated with good management. For example, the seepage of pesticides and fertilizers can be reduced through controlled application. Water use can be managed more effectively with computer-controlled irrigation systems and the substitution of drought-tolerant plantings. Objections relating to the loss of agricultural land and employment are difficult to contest, but may be countered by promoting the beneficial aspects of a golf course such as employment opportunities, enhanced property and sales taxes, higher real estate values and open space. In drought-prone areas of the country, the water issue can be most important. A golf course cannot exist without proper irrigation. As mentioned earlier, increased use of treated effluent from waste water facilities is the contemporary solution to this problem. Thus, future golf course locations will be influenced by proximity to these plants. For golf courses in residential communities, onsite package plants can be used to reclaim domestic waste water for use on the golf course.

No investment in a prospective golf development should be made without first obtaining the services of professional consultants who can provide advice on environmental problems as well as planning and financial considerations.
Notes

For in-depth information on the subject of golf course design and architecture, the following are recommended, and can be found online or at specialty book stores:

- Hurdzan, Dr. Michael J., *Golf Course Architecture: Design, Construction and Restoration*, (Sleeping Bear Press 1996). Described as “the modern bible of golf architecture,” this book distills the author’s 30 years of knowledge into one source with 326 color photos and 80 course maps and drawings.