The cost of design

By JEREMY PERN

At the recent Brijuni International Golf Conference, 2007, golf course architect, Jeremy Pern presented this paper. The debate rages over whether a 'signature designer' offers better value than a professional golf course architect and Pern offers a remarkably balanced view!

Value for money in golf course development

Assessing value for money is an essential part of any commercial transaction, whether buying a house, a business, or undertaking the development of a golf course project.

How can a potential golf course developer assess value for money in relation to the cost of the golf course project, and how can he be confident that the budget is being well spent on essential fundamentals with long-term benefits?

Creating a high quality golf course, whilst optimising construction and maintenance costs, is a priority for any golf course developer. A small development budget does not necessarily result in a poor quality golf course any more than a large budget can guarantee a great course; quality is not just a question of money.

Ensuring that the available budget is wisely spent on essentials, rather than options, is an on-going juggling act – usually between the client, contractor and architect. It is just as important to ensure appropriate expenditure on items that cannot be subsequently altered (eg shaping, drainage), as it is to avoid false economies on cheap but substandard materials (green and bunker sand). Free draining greens and decent sized tees may be more important in the long run than a marble floor in the clubhouse or exotic landscape planting.

A golf course development project is a process – usually long, uncertain and costly. Creating value for money and maximising course quality, requires a thorough understanding of this process in all its complexity. Despite the uniqueness of each course, all projects go through a similar pre-opening gestation period that can be broken down into a precise sequence of decisions, events and operations.

There are three phases in the life of a golf course project – the Planning Phase, the Design Phase and the Construction Phase, each with several distinct stages. In total there are ten stages and although there is a definite sequence, some may overlap and interlink with one another. Inadequate performance at any stage will almost certainly impact on subsequent operations to the detriment of the overall value of the project.

THE PLANNING PHASE
STAGE 1 Choosing the site

The golf course site itself is the single most important factor affecting the potential of a golf project. Inappropriate sites can be modified, but at a cost that can make the end result economically unjustifiable, or simply inadequate in terms of quality golf. The best sites are those that require relatively little expenditure, resulting in a very high quality course. The difference in site acquisition costs between a good site and a poor one are seldom in proportion to their golf potential.

Considerations:

- Location and surroundings
- Topography
- Soil type and natural features
- Access and infrastructure
- Surface area and morphology
- Vegetation
- Water

STAGE 2 Defining the golf product

Whilst every golf course has its own character, there are a small number of variables when it comes to selecting the type of golf course most suited to a particular client's needs. The standard model course (SMC) which can be defined as an 18 hole par 72, 6000-6300m with associated practice facilities, is the basis for any general discussion on golf product. In countries where golf is a developing sport, investors may not have a full understanding of the different types of courses that exist.

The owner, in conjunction with his development advisors, including the course architect, should define the golf product.

Considerations:

- Who is going to play and who is going to pay?
- Green fees
- Tourists
- Members
- Residents

Development budgets

- Type of course
- Public commercial
- Championship course
- Club course
- Number of holes, 9-18-27-36?
- Private commercial
- Beginner's course
- Residential, resort or recreation?

STAGE 3 Choosing the architect

Fit the architect to the project, not the project to the architect. The course design costs seldom bear a relationship to the value of the project. Good ideas cost nothing but can save a fortune. Bad ideas not only give bad results, but also may be expensive to rectify.

Once the site is selected, the choice of architect will have the greatest effect on the long-term quality of the project.

A significant proportion of golf courses are designed by people who have never designed a course before. The inexperienced may be the cheapest (but not always). However, they will be learning their trade at the expense of the owner.

Around the world there are several hundred golf course design firms who make their living exclusively from golf course architecture. They are the true professionals of the business. As in any profession, there is a spectrum of excellence, in this case revealed by existing examples of their work.

Some developers find that attaching a 'signature' or 'brand image' to a golf course project may help promote residential sales or increase green fees and hotel occupancy rates. The signature designers, most of them successful (ex) professional golfers, will usually visit the site a couple of times during the life of a project for a photo op and promotional purposes. Very few professional golfers can do any actual detailed design work themselves, relying on the services of professional golf course architects. But is branding, 'blanding'?

The project budget and complexity will dictate what type of architect is most suitable.

STAGE 4 Design fees

That old saying 'If you pay peanuts, you get monkeys' is largely true of golf course design, but high design costs do not guarantee high value courses. Inexperienced developers often skimp on the design fees with disastrous results. Sadly, many expensively designed courses also fail, not least because of very high development and construction costs.

Professional golf courses architects will be able to tailor a project to the developers site and budget and charge no more than the industry norms of between 5 and 10 per cent of the construction costs, usually within the range of 150,000 to 350,000 euros for a standard 18-hole course in Europe, costing 2,000,000 to 4,000,000 euros to build. Experienced professional architects give the best value in terms of the cost of the golf course design.

Fees for signature designers and course branding can range from 500,000 to several million euros per course. Construction costs of signature courses are usually proportionally higher than other designs but there is no guarantee of a proportional increase in golf course quality. However, a signature designer can add value to the sale of housing on a residential project.

THE DESIGN PHASE
STAGE 5 Master planning, routing the course

The essence of a golf course lies within the course routing and project master plan, with associated facilities and buildings. Inspirational design is based on intuition, vision and imagination combined with a thorough understanding of the site and its constraints. That combination will produce a course routing resulting in the best value golf course. Good conceptual development at this stage can save considerable expenditure in all the subsequent construction phases.

STAGE 6 The detailed design and specifications

Imaginative design, careful thought and thorough planning are the key to cost effective projects. The 7 P's - Proper Prior Planning Prevents Piss Poor Performance. This rather crude phrase sums up the importance of detail in the contract document preparation and design phase. The transformation of a design into an object depends on exacting and precise specifications – their accuracy, presentation and clarity, together with construction monitoring and project management.

A talented golf course architect will be able to differentiate between essential works and unnecessary trimmings. Choices have to be made and expressed in terms of the detailed feature design when working within a fixed budget. The specifications and tender documentation will form the basis of any conflict resolution procedures and associated legal debate. At the same time, they should be easily understood by the contractors on site.

Disputes cost money. Poor specifications, under or over specifying the works, or simply lack of instruction, can be expensive.

THE CONSTRUCTION PHASE
STAGE 7 Earthworks and shaping

The Goldilocks Theory holds true- "Just enough and not too much." Moving very large amounts of earth (for example: more than 300,000m3) around a golf course is no guarantee of quality, and may actually be an indication of an inappropriate choice of site, or an inadequate design; to say nothing of the expense and environmental impact that such large scale earthworks may have. In some cases, large quantities may be necessary, especially in land reclamation projects, or where residential projects make demands that are not strictly golf related. Imaginative routing and intelligent design can usually significantly reduce large-scale earthworks.

Shaping costs can often be high due to extravagant demands of specialist shapers (as much as €20,000 per month for up to a year). Decent plans, on site instructions and some teaching can convert good local machine drivers into rough shapers. Final shaping by specialist shapers at reasonable rates (€7-10,000 pm) can be an excellent long-term qualitative investment.

STAGE 8 Irrigation and drainage

Within reason, the more that is spent on a modern irrigation system, the less water is required. Upgrading an irrigation system can be expensive and disruptive, so it is wise to install the best affordable system during initial construction.

Drainage is as important as irrigation. Golf course fairways in heavy soils will compact and become less permeable over time. Spiking, slitting and coring may help reduce compaction, but the most effective solution is to establish surface water management through effective shaping and installing catch basins and ditches so that water can get into a drainage pipe as soon as possible. Large-scale agricultural drainage may simply waste money in the long term.

STAGE 9 Greens, tees and bunkers

The quality of the golf course features is more important than their size. Do not make features with substandard materials; cheap sand that does not meet the correct specifications will result in failed greens at some point in the future. Bunkers that require expensive maintenance procedures due to poor construction and design will have to be altered at considerable cost later on. Selection of the correct type of grass seed should be made with the maintenance budget in mind. Making greens too steep may result in consumer resistance and revenue loss as green fee players go elsewhere. Muddy tees and wet greens will have the same effect. These are problems that can be solved at the design and construction phase, within the predefined budgets.

STAGE 10 Landscaping and maintenance considerations

Spending money on non-essentials is not wise resource management when faced with limited budgets. For example, it makes more sense to spend money on good greens and no trees, than poor greens and many trees. Trees may be planted later and at the same price. The same may go for cart paths. Some owners consider full tee-to-tee cart paths as essential items; others make do with green-to-tee paths. The 10 kilometres of cart paths needed for a tee-to-tee system cost a great deal of money, often more than the cost of the bunkers and the tees put together.

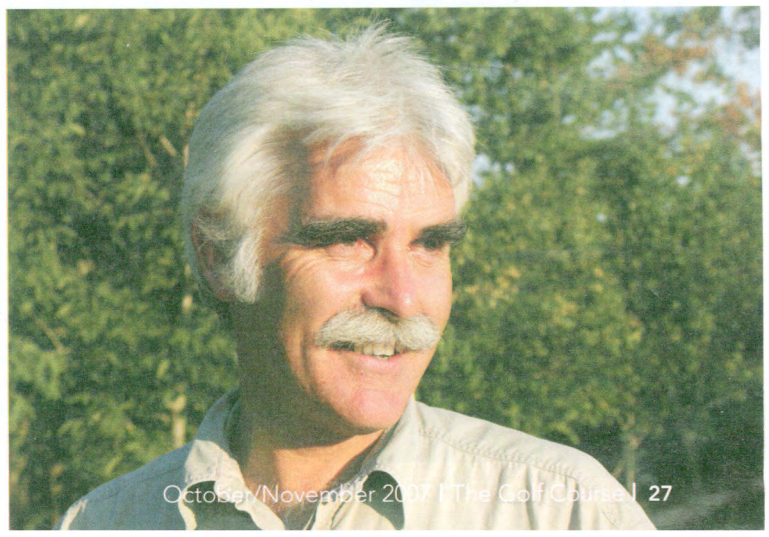
Expensive but non-essential water features like artificial fountains, streams and waterfalls may be installed at a later date when money is more plentiful.

Recommendations

Cost effective, high value for money golf course developments depend entirely upon the quality of their design and construction specifications. Rationalising the budget through the different development stages will harmonise the overall quality of the course. The only person with sufficient overview of the process capable of influencing the 'value for money' aspects of the project is the course architect. Choose him wisely.

Do not build your course twice – the first time to discover how to do it and the second to put right all the mistakes of the first attempt.

A wide range of specialist skills are needed to create a golf course that looks as if it has always been there, so use professional and experienced people to help you forget that the course was actually designed and then built.

And remember that quality golf courses are created, not bought.

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