



# BACK to the

# DRAWING BOARD

**MICHAEL BIRD**  
investigates what's involved in the  
planning and building of a golf  
course workshop.  
Part 1

**T**here's considerably more to the planning, design and construction of a workshop than simply asking a local builder to put up a new shed on a bit of spare ground. Unlike similar buildings found on farms – which amazingly rarely require Building Regulations approval – a new golf course workshop, irrespective of its size and cost, must satisfy the full force of the building and planning regulations before, during and after its construction.

Those who build without the necessary permissions and approvals are leaving themselves defenceless in the event of a problem, such as water pollution caused by inadequate drainage, or an accident resulting from poor workmanship, design or materials used in the building's construction. "Any short term financial gain can be quickly erased by the cost of correcting a fault or paying out compensation," comments Nigel Belton, leader of one of ADAS's Building Design teams. "At the end of the day, it has to make sense to do the job 'by the book' rather than to risk a life or to be told to pull down the building."

Formerly funded from the public purse for the benefit of agriculture and horticulture in England and Wales, ADAS now charges commercial rates for its range of services. To support the changes, the organisation has a new structure, new headquarters and a new logo, underpinned by the clear message that it now

serves the food, farming, land and leisure industries.

Drawing on the expertise and experience built up over the 40-plus years' existence of ADAS, The 70-strong Building Design team includes surveyors, architects, civil and structural engineers and a full technical support staff, working from seven locations in England and Wales. The leisure and amenity sectors are two areas in which Mr Belton is seeking to increase activities and although he would like to see all prospective clients beating a path to his door, he does not expect to have it all his own way: "It's certainly not unusual to have to tender for building consultancy work," he comments. "In fact, I would always recommend golf clubs to speak to more than one consultancy before making their final choice."

Ideally, the tender figure submitted should, he says, cover the cost of the essential first stage of any building project, namely, carrying out a feasibility study. Encompassing examination of the chosen site and determination of the requirements of the client, the feasibility study will establish, first, whether the project is practicable and, second, what it is likely to cost. According to Mr Belton, the biggest problem encountered is under-budgeting by the client. "In addition to producing a basic scheme design which meets the needs of the greenkeeper and his staff, the feasibility study

should detail budget capital costs for the job," he says. "At that point, a decision can be taken on whether to go ahead, or to revise the plans, or to start again."

Apart from site suitability, details determined during the feasibility stage will be the major decisions concerning the main purpose and functions of the building. These could include whether it is to serve both as a machinery store and a workshop; whether it needs spare parts storage; whether it should include an office, mess-room and toilet facilities; and the size and type of equipment which may need to be accommodated. In addition, external details such as the position of any wash-down area and the need for covered storage for soil mixes, composts and fertilisers or lockable compounds for gas, fuel and chemicals should be covered. "We find that our clients usually know most of the answers," he comments. "It's basically down to us to ask the right questions. We can then produce a design which satisfies most, if not all of their requirements."

Having agreed the basic design and budget costings, the client and designer can then proceed to stage two of the building project – the production of the outline proposals and the final scheme design. At this point, the designer will make contact with the planning officer of the local authority to assess whether the ➤ 15

# BACK to the DRAWING BOARD

13 → proposed building and its location is likely to receive planning approval. Giving agreement in principal that the project may proceed to the next stage, outline planning approval is gained by submitting a site location, a description of the proposed building and a fee.

With outline consent granted, the project can then move towards the gaining of full planning approval. Considered to be the most time-consuming part of any scheme, this involves working up the sketches produced for the feasibility study into drawings detailing the technical aspects of the scheme. These will take into consideration, among other items, the movement of people and machines within and around the building, site access, the floor plan, loadings on floors and walls, drainage for contaminated and foul water, mains services, heating and ventilation, all health and safety aspects and the need to satisfy building regulations. "Costings can run away at this stage," he points out. "It is vital therefore that any changes to the agreed basic design brief are noted, costed and reported to the client."

The plans and elevations produced will serve two main purposes. Detailing both the overall layout and an artist's impression of the finished building, they can be used to show club members the proposed development. Accompanied by the appropriate forms and fee, they will be submitted to the local planning authority to seek full planning approval for the project.

However, it is important that all details of the design and use of the building must have been agreed between the designer and the client prior to the application. "This stage of the project should involve close liaison between the two parties," he observes. "It is vital that the designer interprets correctly the client's needs and that the latter understands exactly what is proposed, because any subsequent changes are likely to incur additional and unnecessary costs."

In addition to the planning committee of the local authority, other bodies which may become involved at this stage include the local Parish Council, the National Parks, the Council for the Preservation of Rural England and the National Rivers Authority. The NRA must always give approval to any planning application involving waste disposal. Certain developments in sensitive areas will also entail site visits by interested parties as part of the application process.

With full planning consent under one's belt, the project can move forward to the detailed design stage. This is where all the technical aspects of the building's design and construction are finalised and a full set of detailed drawings are produced in order to gain Building Regulations approval. Administered by the building control department of the local authority, the regulations cover all technical and structural aspects including foundations, walls, roofing, lighting, heating, ventilation



Nigel Belton, leader of one of ADAS's Building Design teams, with some of the rules, regulations and guidelines pertaining to new building projects

**'Tender analysis is not straightforward and it is not uncommon to find that the cheapest has omitted part of the specifications'**

and drainage, these to ensure that the proposed building is fit for its purpose and suitable for human occupation. "This area can be a minefield, but it is an essential part of any building project if the job is going to be right," comments Nigel Belton. "The production of scale drawings will also go a long way to obtaining consistent tenders."

The tendering action is the fourth stage in

the project and marks the point at which the laws of contract 'enters the ring'. Explaining further, he says that you are now asking someone to make you an offer to construct a building. "We recommend inviting at least five companies to tender, determined beforehand that they are willing to do so," he suggests. "Those firms selected must all receive the same drawings and explicit building specifications. They should also receive a formal contract document which forms part of the tender package and sets out all the conditions that must be met in undertaking the project."

These include required start and finish dates, site access and security, water availability, payment details, wash facilities, dispute procedures and the need for suitable insurance while the site is in the builder's hands. This contract, drawn up by the designer in full consultation with the client, gives legal protection to all parties. "Any reputable design consultancy will produce a detailed specification and a contract document for its client," he says, "and most good building contractors will expect to receive them."

With tenders returned, each needs to be carefully analysed as some may include exclusions or qualifications. Tender analysis is not straightforward and it is not uncommon to find that the cheapest has amended certain details or omitted part of the specifications. "We will present a complete analysis and tender breakdown to the client and make recommendations as to the appointment of a contractor," explains Mr Belton. "Providing the tenderer has followed the brief, there should be no ambiguities and no reason why the least expensive should not get the job."

At this stage, 75% of the building project has been completed. However, there are still pitfalls in the final stage – operations on site. Although it is the designer's responsibility to ensure that the project is completed to specification, additional work involving extra costs will often arise. Minor changes, such as different door handles or paint, should not incur additional cost, although they must be documented. Unexpected problems such as old buried water pipes or localised subsidence may add both time and money to the project and these will have to be agreed and costed before proceeding. It is important that the client gives no direct instructions to the contractor at this stage, nor becomes physically involved with the project due to the cost and insurance implications.

The payment details should all have been agreed in advance in the contract particulars, and Nigel Belton recommends that all stage payments should include a retention figure of 3%. When the building is completed and released by the contractor to the client, half of the retained money is paid, leaving 1.5% to cover the cost of correcting small defects or problems arising during the subsequent six months.

● Part 2 next month