

# St Andrews builds for the future

The need for new greenkeeping facilities at St Andrews had been apparent for some time.

For more than 40 years, the staff looking after the original four courses on St Andrews Links had worked out of ageing buildings situated at the southernmost end of the Jubilee Course – the 18 holes laid out closest to the sea.

The result was that maintenance of St Andrews' four oldest courses, the Old, the New, the Jubilee and the Eden, involved crossing numerous fairways, public paths and tracks and even a now disused railway line, a situation far from ideal, especially during the run-up to important tournaments and championships.

The logistics problem was exacerbated further in 1972 and 1993 following the respective openings of the nine-hole Balgove and the 18-hole Strathtyrum Courses – both located inland adjacent to the Eden Course. The distance now being travelled from the existing Jubilee sheds to mow the most distant tees and greens was almost two miles.

"The facility had simply become inadequate for the staffing levels and the higher standards of maintenance demanded across the links," commented St Andrews Links Manager, Ian Forbes. "It was also in completely the wrong place to look after six separate golf courses."

A decision was taken by St Andrews Links Trust in 1993 to develop two new greenkeeping centres. One would replace the existing sheds to look after the Jubilee, the Old and the New Courses, the other would house the staff and machinery maintaining the Eden, Balgove and Strathtyrum Courses.

Because there was a pressing need for a brand new facility close to the latter three courses, it was decided that construction should start first on the all new Eden Greenkeeping Centre. But where should it be situated?

Initial plans drawn up in April 1994 by consultant architect, Fraser Smart, identified 10 possible locations for the new building. Six of these were quickly discarded as being unacceptable to either St Andrews or the local planners.

The remaining four sites were

then studied in detail with particular emphasis being given to their position in relation to the courses.

"Accessibility and the ease of serving the three courses were paramount in reaching the final decision," pointed out Ian Forbes. "However, selection of the best location from an access and operating point of view had to be set against the fact that this is a very sensitive area. Not only would the new greenkeeping centre be visible from the Old Course and the main road into the town, but it would also be close to the Links Trust offices, the Golf Practice Centre and the reception and ticket office for the three courses

roundings and the required traffic flow without detracting from the building's main function as a working greenkeeping centre.

"We needed to combine a low building, which would have minimum impact on the landscape, with a large internal volume to maximise the working space from an available floor area of 1,000 square metres," explained Fraser Smart. "This was achieved through the use of an asymmetric portal frame design which gave us a low eaves height, yet provided adequate internal headroom and plenty of useable space within the span of the building."

The major problem of low

centre which allows machinery to be driven from one course to another without hindrance.

Machines can also move smoothly from the roadway into the greenkeeping complex en route from the Eden to Strathtyrum or Balgove courses and vice versa. They can also leave the building by a different door to the one by which they entered.

From the beginning, the new Eden Greenkeeping Centre had to include three main elements: Storage for greenkeeping equipment, storage for buggies, and offices and facilities for greenkeepers, rangers and course orderlies.

Because the main workshop will be housed within the new Jubilee building, currently under construction, the Eden has minimal workshop facilities although there is a purpose-built separate covered storage area for fuel, soil and top dressing materials.

While the 'L-shaped layout of the main building has kept the individual internal elements separate, the greenkeepers are sharing rest and wash room facilities with the staff employed on the links to carry out support functions such as rangers, cleansing and waste management, painting and general repairs and maintenance. This integration is proving successful and has helped improve staff relations and the understanding of each other's role.

Concerns about the visibility of the Eden facility from other parts of the links were answered by a 2m high embankment built around virtually the complete complex. Part of this already existed following the excavations for the car park and golf practice centre in 1992. The remainder used soil excavated in preparation for the footings for the new building. This gave a fast, effective screen at considerable cost saving over the trees originally planned.

In designing the building, architect Fraser Smart included several interesting features. Ventilation is natural rather than mechanical combining air entry ducts beneath the eaves and louvered air outlets within dormers set into the roof at the same level as the top of the main doors. Apart from complementing the overall



A 2m high embankment around the facility provides an effective and economical screen. Air circulating through ducts beneath the eaves and in the roof provide five air changes an hour within the building

it would be serving."

While the introduction of a new working facility into the heart of an existing golfing centre brought difficulties of its own, the chosen location did help dictate the final design of the building. "Being adjacent to existing buildings and trees helped," pointed out architect, Fraser Smart. "There is no doubt that other sites would have had far more impact on the landscape."

Initial drawings of the new greenkeeping facility had followed a design which would sit comfortably among the existing architecture of the area, principally low, short span, pitch roofed farm buildings with gables. Once the final site was selected, the basic design and layout was altered to suit the immediate sur-

eaves is providing sufficient height for the movement in and out of the building of tall machinery such as tractors and digger-loaders. This was overcome by setting the main doorways into the roof, dormer fashion, with security provided by electrically-operated roller shutter doors.

The design and positioning of the building, its internal layout and main doorways were dictated by the traffic flow through the site and into the facility. Because the centre is serving three different courses – two in one direction, the third in another – it was necessary to plan separate routes into and out of the building and to the Eden, Strathtyrum and Balgove courses. This has been achieved successfully by installing a perimeter roadway around the

design, the resulting air circulation movement is said to give five complete air changes an hour within the building.

Because all of the washings go to soakaways, proper separation of grass, oil, fuel and silt is essential to prevent soil contamination and waste pipe blockage.

Oil and fuel is handled by three filtering chambers and there is also twin silt traps. Collection of grass clippings was considered a major problem and paid special attention by Fraser Smart. The solution was found in a specially-designed three-stage tumbling filter comprising three chambers of gradually increasing depth through which washings passed, depositing stray grass on the way.

The end result is clean water flowing to the soakaways, leaving grass behind in the regularly-emptied traps.

"In the Eden Greenkeeping Centre, we have a facility which has helped raise the all-round standards and efficiency of links maintenance," commented Ian



The main doors are set into the roof dormer-fashion to maintain a low eaves and building height in keeping with local architecture

Forbes. "From a greenfield site, it was up and running within the three months originally scheduled

and was delivered within the planned budget of £525,000. At £400,000 for the building and

£120,000 for the associated services and roads, St Andrews has a cost-effective unit providing one of the best greenkeeping facilities in Europe."

● Next month, the Learning Experience considers the design, management and operation of St Andrews' Eden Greenkeeping Centre from the greenkeepers' point of view.

**THE ONE QUESTION I WOULD LIKE TO ASK OTHER GREENKEEPERS IS:**



"How would you go about getting an annual invitation to the Kubota Challenge?"

**Scott Ballantyne, Cowglen**

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