



400 with 365.

Pictured in 2001, this 35hp John Deere JD4400 and JD365 trailed gang mower combination may not look to have moved the tractor game on by a great deal, but appearance is deceiving. Hydrostatic drive, genuinely turf friendly tyres and a proper ROPS frame are three clear developments, 4WD and power steering making this model more versatile and user friendly than earlier designs. Often overlooked is operator comfort. Spend a few hours behind the wheel of an old tractor and it is clear that there has been a great deal of progress.

MF 240 Golf.

The 45hp Massey Ferguson MF 240 is a good example of how agricultural models were adapted to suit the needs of amenity and golf users. The 8 forward speed transmission would go down to 1.62kph. Although the turf tyres fitted are narrow by modern standards, they were a real step forward, particularly at the front. Add a ROPS frame and run the exhaust down the side, and this tractor would no doubt still appeal to a number of golf courses. This picture is from the early 1980s.



Carnoustie Leda 7tr May 2007.

Substitute the Kubota tractor up front with a pair of well trained horses and the chances are you could go mowing with this set of trailed Lloyds gangs. OK, there would need to be more than a few changes to the mower to gear it up to work at a horse's pace, but the point is tractors started out as a simple replacement for animal power. A three-point linkage and PTO are now essential to operate modern attachments, but it has not always been that way.



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DIARY OF A GOLF COURSE

By Peter Jones

Last month Peter Jones looked at the development of a new golf course, currently under construction near Guildford, and the decisions involved in getting a new golf course established. This month we hear about some of the seed mixtures chosen, and the design principles employed to ensure the course will be relatively easy to build and maintain, while making it appeal to its target group of golfers.

Finding a suitable site close to the centre of Guildford for the new Clandon Park Golf Club was no mean feat, and although some may have questioned the feasibility of a new club being adjacent to an established course, and less than two miles from another relatively new course, it is fair to say that the Clandon Park site lends itself wonderfully to being a golf course, benefiting from a gently rolling topography.

A business decision was made by the owners/operators to create a good quality course for the Pay & Play market, and therefore the course would have to appeal to a range of golfers, and provide a sufficient challenge and an incentive for them to want to play it again and again. The challenge set to the design and construction team was to build a course that would provide such appeal, yet also be relatively inexpensive to build and maintain.

A budget of approximately £1.5m was proposed for the construction of the course, including the irrigation system, which by today's standards is less than half of what some courses cost to build.

Key design principles used to help control construction and/or costs included:

- Generous green sizes to spread the wear, averaging 520m² (566yds²).
- Greens constructed well away from existing trees
- Two or three good sized teeing areas on each hole, with tee area averaging 500m² per hole.
- Use of On-site soil as main component for tee construction

- Single side-to-side French drain across each tee
- A maximum of 40 greenside bunkers
- A maximum of 20 fairway bunkers
- The use of mowable grass hollows as low maintenance features
- All banks mowable with ride-on mowers
- Irrigation to Greens, Tees and Approaches only. (Not fairways)
- Designated 'Conservation Areas' which will receive little significant maintenance
- Limited numbers of proposed new trees, to be planted well away from tees and greens to avoid long term future problems
- Use of drainage soak-aways into the chalk as preferred choice of drainage system

Fairway Areas

Typically the biggest areas, fine turf areas to be prepared on a course are the fairways, and a significant saving was achieved by deciding to retain the existing contours on the majority of the fairway areas, and not to strip the topsoil off and re-shape these areas.

Fairway seed mixture

A choice of seed mixture for the fairways was decided on with the short term objective of maximising the chances of late spring/early summer establishment of sward on non irrigated areas, and the longer term objective of providing good wear tolerance, good summer and winter colour, and excellent drought tolerance. The mixture was based on the following proportions of Perennial ryegrass and a mixture of Fescues, and assumed that the variance in topography across the site would typically favour the ryegrass in the more moist areas, and the fescues in the drier areas:

20% Perennial ryegrass, 30% Slender creeping red fescue; 30% Strong creeping red fescue, 20% Hard fescue.

Perennial ryegrass was included to offer rapid establishment, good wear tolerance and excellent drought tolerance for the species. Hard fescue for superior drought tolerance for non-irrigated fairways and good winter colour. With a high percentage of creeping red fescues to offer excellent recovery capability and drought tolerance.

Deep Rough seed mixture

In order to enhance the aesthetic appeal of the course in the summer, and also reduce the area of rough to be mown, a seed mixture was chosen for designated deep rough areas with the intention of letting the grasses go to seed each year. This mixture consisted of Slender CRF, Strong CRF, Chewings fescue, and Hard fescue. A proportion of topsoil was removed from these areas to help reduce the rate of growth.

Conservation Areas

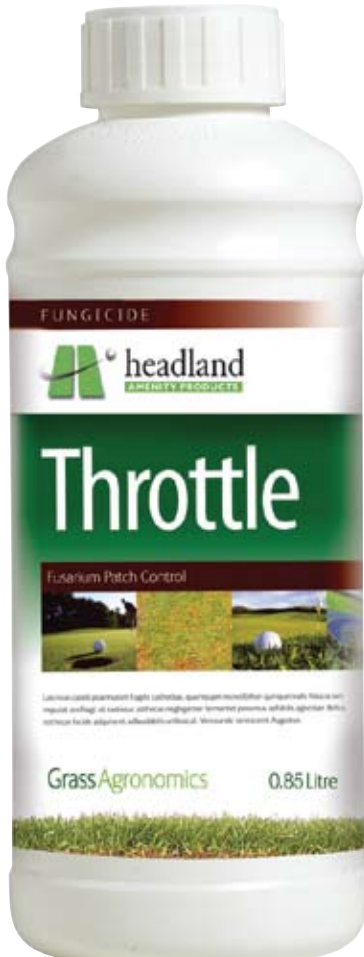
Areas identified for Conservation and Wildflower mixtures were completely stripped of topsoil to provide as little soil as practical to sow into, and the salvaged topsoil was transported across the site for future use on the fairways that would be constructed in the Wildflower areas can be notoriously difficult to maintain to their full potential over the long term, and therefore all attempts were made to maximise the chances of success from the offset in order to reduce maintenance costs. If successful, the long seeding grasses and predominant wildflower colours of yellow, white and purple should help to provide a magnificent appearance to the course, and bring rich benefits to the environment for wildlife.

Next month - construction techniques used to deal with extensive flint stone problems

New Products



NEW PRODUCTS



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Two powerful ingredients feature in Throttle, Headland's new curative and preventative fungicide.

This effective new product combines active ingredients, each with different modes of action, to provide more efficient control of Fusarium Patch (*Microdochium nivale*) in managed amenity turf. The liquid formulation does not affect the natural balance of soil bacteria and can be tank mixed with Headland's contact fungicide Surpass, to aid rapid control of established infection.

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Designed very much with the Countryside Stewardship scheme in mind, this new hedgecutter system from STM features the Humus KM heavy duty flail technology, developed for quick, deep, clean cutting of dense and heavy growth. In recent trials it showed its capability for cutting through thick stems, including elm, a notoriously tough material.

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Synthetic surfacing supplier Notts Sport has launched a new range of aerosol markers designed specially for use on synthetic turf.

The new Linemarker Aerosol offers a convenient way to introduce markings onto a synthetic surface with long-lasting results.

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Sweden based company, Five Seasons, has launched a new waterproof suit with detachable hood.

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Ideal for landscapers and golf courses, this robust chipper/shredder from Bear Cat is powered by a 24hp Honda engine, and is highly versatile.

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3PointPower, the new distributor for Sisis Equipment in Scotland, are pleased to announce that the company's own products, The 3 Point Linkage and PTO units for heavy duty Utility vehicles, are now available for direct sale. 3PP are also currently in the final stage of developing an exciting new product which will be launched in September.

Customers in Scotland will not notice any difference in the way Sisis products are handled, since 3PP have been appointed as sole distributor; all invoicing and spare parts will still be handled by Sisis (Macclesfield).

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Scotts Professional has launched a new selective post-emergence herbicide which kills turf weeds in one hit.

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TWO NEW MODELS OF RIDE-ON ROTARY

Etesia has launched two models in their 100cm ride-on rotary range – the Hydro 100D BPHP and BPSP.

In developing these machines, Etesia has succeeded in their objective to keep vibrations, emissions and noise to a minimum, while maintaining outstanding productivity and performance.

Power is at the heart of any rotary mower - with these high specification H100D lawnmowers, this comes from a Perkins 403D-07 20.5hp 3-cylinder water-cooled diesel engine - a unit noted for its quieter; cleaner; smooth yet powerful delivery.

Designed for durability and long life, this engine has a track record of proven reliability and performance and offers maximum fuel efficiency; low running costs plus longer intervals between servicing and oil changes.

i www.etesia.com





SPACE INVADERS

With developers keen to market “golf course views” many courses are being squeezed by adjacent residential developments. Jonathan Gaunt talks with Scott MacCallum about how best to solve the problem – with the desired aim of making the course safe to play.

With land at a premium it is not surprising that some golf courses are finding themselves hemmed in by housing, as private golf clubs and more commercial hotel developments seek to maximise their assets by either selling land to developers or extending hotel facilities. The downside can be that encroaching development creates health and safety issues where previously there were none. It’s a subject about which renowned golf course architect, Jonathan Gaunt, has some experience.

“I was called into Westerwood, near Cumbernauld, in Scotland, which is one of the group of hotels now owned by Leeds-based specialist hotel operator, Q Hotels plc. Over the years, land immediately adjacent to the golf course had been sold off in chunks by the previous owners, which created some big operational problems,” explained Jonathan, as we sat in his superb design studio in Bakewell, Derbyshire, at the centre of the Peak National Park. (Incidentally Q Hotels also owns Aldwark Manor where BIGGA Headquarters is based.)

As the sizeable piece of real-estate was sold off, the golf course ended up being boxed in, with no room for future expansion, and for whatever reason, holes 11, 12 and 13 were bordered to both sides by new housing – which had been built in the late 1990’s and early 2000’s. The land area was barely the width of a fairway, so a mild slice or hook would end up in someone’s garden or conservatory – it was a fatal accident just waiting to happen...

It really was choking the golf course to death and having been called in by Q Hotel’s Director of Golf, Nic Oldham, Jonathan began looking at a number of options with George Oldham (Nic’s father) – a RIBA architect and planning consultant - for ways of returning the course, which was designed by Seve Ballesteros and Dave Thomas in the ‘80s, to a good standard and layout.

The only way to resolve the problem was to look for another piece of land altogether and at the same time aim to rationalise all the other problems of the course. They included drainage, irrigation and a chronic underfunding of the maintenance staff and facilities with whom, Course Manager, David Montgomery, was manfully working. I think he was down to four men with ancient machinery while the greenkeepers’ compound was an old ramshackle building with no heating or showers... and this was a prestigious hotel golf course development.”

Jonathan has a piece of advice for all golf clubs if, of course, they are in a position to do it: “Buy the fields next to your golf course as this will protect your boundaries and give you room to expand if the need arises. For example, Hillsborough GC, in Sheffield, was only on 110 acres for their 18 holes but they actually own 172 acres and this has allowed them to extend. If they decide to sell a field to housing developers in the future, the money they make will pay for something else for the club.”

Even if it stretches the finances, do not ignore any opportunity to buy up more land. “Meltham GC, near Huddersfield, bought a couple of pieces of land on the edge of the golf course because

they have a number of health and safety issues (crossing holes, narrow, sloping fairways, etc.) and while they don’t currently have the funds available to do the work, they have the land there for when they do. Let’s face it, the land is not going to lose value if they have to wait five, 10 or 15 years before making the next move.”

A masterplan has already been drawn up by Jonathan for the long term redevelopment of the course - irrespective of changes in committee and club officials, this plan will remain in place as a “policy document” for many years to come.

Back at Westerwood, Q-Hotels purchased land further north of the existing course and between the main Edinburgh to Glasgow railway line and the Antonine Wall (a World Heritage Site). Together with Nic Oldham and his father, George, a building architect and planning consultant with a wide knowledge of golf and planning issues, got the project moving.

“We looked at moving five holes to the new site. It is seriously beautiful, overlooking the Firth-Clyde Navigation and the Campsie Fells, while the land is gently undulating in places and quite steep in others. George had already prepared a suggested routing for the golf course extension, which worked very well and Jonathan fine-tuned this layout and made the new holes work in engineering and architectural terms, which were then approved by Nic. It meant that the tight, dangerous boxed in holes which had caused all the problems were taken out of play.”

The next stage was to present the plans to a sceptical membership who, at the time, were

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pretty much against any new plans for the course because they believed that Q-Hotels was going to come in, raise subscriptions and force them out, leaving it as a high profile hotel course.

“However, Nick saw beyond that and told the meeting of around 60 members they were more important to him than any hotel guests as they were users of the facilities, not just the golf course, but the pro-shop, bar and restaurant. Having gone in feeling as though we were going to be stoned to death we finished, having been as open and proactive as we could have been, with them patting us on the back,” said Jonathan, who added that the additional information about improving the drainage, irrigation and health and safety issues helped to assure the members.

Having survived the meeting of members, the feeling in the camp was that progress could then be made but they hadn't reckoned for the planning issues that arose from the sensitivity of the site.

“As part of the planning application we had to get approval from Historic Scotland because access to the new holes was only available by crossing the Antonine Wall, which actually looks more like a railway cutting than a wall. Although it had been crossed on numerous locations prior to our application, we were only allowed to have one crossing point and were not allowed to make any earth works on the new 4th hole within 25 metres of it, so a “protected no-enter zone” was established before permission was granted.

“The other problem we had related to the railway line and ScotRail was concerned because work had been done at Dullater GC a number of years previously and there had been a massive landslide onto the line.

ScotRail felt that the same thing might happen at Westerwood so we had to produce a detailed design, including engineering drawings showing the contours and drainage proposals, so we could prove how we were dealing with any surface water

on the site, which is much more detailed than we would normally be expected to produce.”

So with the archaeology and the railway issues slowing the project right down, costing at least two months of valuable construction time they were only able to get on site in April 2007.

“The seed should have gone in the ground in September 2007, but we had to close the site down due to extremely bad weather for the winter in October and it was only in April 2008 that we were able to get back on site again.”

It is often political and diplomatic skills, as much as his creativity, which golf course architects need although using the correct experts for the job is extremely important.

“On Westerwood, without George Oldham and his experience of attending meetings with archaeologists and planning consultations, it would have been much more difficult. In actual fact, I feel that you shouldn't employ a golf course architect to do that sort of thing - you should always employ a specialist. However, when it comes to landscaping and environmental issues golf course architects can deal with those as they are much more closely related to core work.”

A scholar of golf course design with an extensive library of books on the subject, Jonathan has some interesting comments to make about older designs and how, what was acceptable 100 years ago, does not work nowadays from a health and safety perspective.

“In the past, courses with blind shots were all part of the game but now we try and avoid any blind shots - we'd see it as a fault in the design even although many of us enjoy playing holes with blind shots.”

“From a design perspective if you're presented with a par-3 which is on flat ground, followed by a par-4 which is played over the brow of a hill, you can effectively, 'design out' this 'design flaw' and swap the par-3 for a par-4 played to a green

at the brow of the hill and then a par-3 from an elevated tee. You've solved the problem!

“A course with blind shots designed out if it will be a much more saleable product to members and green fee payers while it does help the speed of play - not having the ball go out of sight and potentially lost and then the group behind having to wait for a bell to ring. These are issues we have to look at nowadays with eight to 10 minute starting times and the pressure of getting golfers around the course quickly and safely. These things were much less of an issue 25-30 years ago,” he explained.

Pay and Play courses generally expect 30,000 to 40,000 rounds of golf per year, minimum - that's a lot of golfers to get round the course at 10 minute intervals.

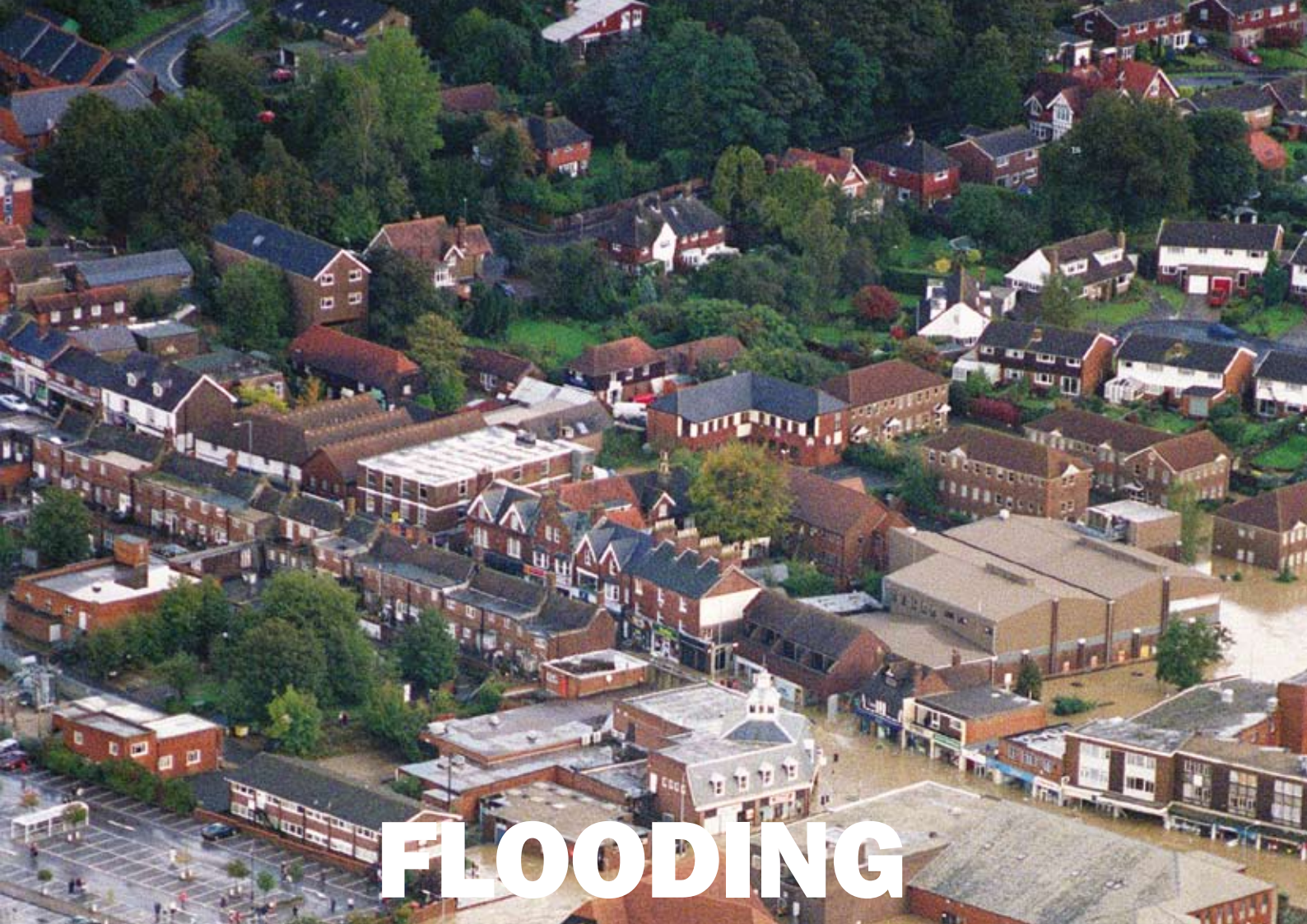
“It may make the course a bit more homogenised or formulaic but every new golf course is being designed for one particular purpose, and that's to make money. The clients I have now are building the golf course to help sell houses or hotels and the courses have to be marketable, as well as being beautiful, memorable and remarkable!” said Jonathan.

He can also envisage the day when it is common place for golf clubs to sell their urban-based golf courses to housing developers and relocated to a new venue out of town, on farmland, or reclaimed land such as pit heaps, landfill and wasteland.

“The Government is telling us that they want so many more homes built over the next 20 years and developers will tempt golf clubs by offering a new course, clubhouse and possibly a cash sum to move away from prime sites to enable houses to be built.

“It means some golf clubs will have to make difficult decisions in the future but stronger health and safety legislation may make the decision process much easier if older, golf courses on small, restricted sites fail to meet modern standards.”





FLOODING + DROUGHT = CLIMATE CHANGE?

The summer of 2006 saw the UK experience some of their highest temperatures on record and hosepipe bans were put in place in many areas. Fast forward a year and the summer of 2007 was almost non-existent, temperatures hit a low and many areas suffered greatly due to flooding. Is climate change to blame? Melissa Jones takes a look at the erratic changes in our weather and finds out what measures greenkeepers can put in place to prepare themselves for every eventuality.

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