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# PADESWOOD & BUCKLEY GOLF CLUB

## Advisory Report on the Golf Course

Report Date: Friday 26<sup>th</sup> June 2020  
Consultant: Emma Beggs



Date of Visit:	Friday 26 <sup>th</sup> June 2020
Visit Objective:	To assess course condition and offer advice to support future improvements.
Present:	Mr Stuart Mason – Head Greenkeeper Mrs Emma Beggs – STRI Ltd
Weather:	Visit completed on a day of heavy showers followed by sunshine and scattered cloud with a temperature of 18°C

### Headlines

- Since my last visit to the Club there have been significant challenges for the greenkeeping team to cope with. An exceptionally wet autumn and winter period has since been followed by an eight week period of essential maintenance as a result of the Covid-19 lockdown. This coincided with a period of drought placing additional stresses on putting surfaces and the course as a whole.
- The course re-opened to play in mid May and the return of showery weather and cooler temperatures from early June has enabled more usual growing conditions to return. The golf course was well presented and providing good surfaces for play.
- Over winter a further four greenside bunkers at the 17<sup>th</sup> and 18<sup>th</sup> were rebuilt using Durabunker for the revetted faces, taking the total number of bunkers built from artificial turf to six. The winter programme also included tee extensions and tree removal work including areas behind the 3<sup>rd</sup> and 4<sup>th</sup> Tees.
- The Club have made investment in the greenkeeping facilities with the installation of a Waste2Water unit to meet The Water Framework Directive in relation to washing down machinery. In terms of future investment it is hoped that it will be possible to buy a Toro Procore aerator for greater flexibility with greens, surrounds and tees aeration work.
- Excellent additional areas of less frequently mown Eco-Rough have been introduced on the course and these should be retained, not only do these improve the standards of presentation but also help save valuable man hours, fuel and machine time.
- The golf course continues to be maintained by 5 staff including an apprentice and one member of staff who works a four day week.

### Key Actions

- Continue with the excellent approach to greens maintenance, the combination of sand dressing and frequent aeration is working extremely well to improve turf consistency, sward density and soil profile conditions. Incorporate an April application of Coldstart fertiliser into the programme for next year to promote recovery of the annual meadow-grass element of the sward.
- Over time start to reduce the frequency with which the areas of Eco-rough are cut. Cut and collect frequencies are currently once per month during spring and summer, as soil fertility depletes so sward composition and density of turf will be refined. Ultimately these areas should be cut and clippings collected once per season, towards the end of each summer.
- Further tree work is scheduled for winter 2020 and it is hoped that the trees between the left of the 3<sup>rd</sup> green and right hand side of the 4<sup>th</sup> tee can be removed to reduce shading on the 3<sup>rd</sup> green and improve turf quality and resistance to disease activity here.
- Look to increase work on Tees once there is sufficient staff time and budget available. The aim over the next few years should be to raise turf standards to bring them in line with standards being achieved on greens. Initially concentrate on the introduction of more regular wetting agent applications and a twice a year renovation programme including blanket sand dressing, aeration and seeding if feasible.

## Photo Observations and Comments



Figure 1: The 1<sup>st</sup> Green provided a good quality putting surface which has coped very well during the recent drought. Moisture management has been well controlled through regular aeration and wetting agent applications.



Figure 2: The heather bank to the right of the 2<sup>nd</sup> tee is becoming contaminated with weeds and STRI will provide some additional advice in relation to this bank in a separate email.



Figure 3: Tree removal was completed over winter behind the 3<sup>rd</sup> tee to increase light and reduce tree root damage through the back of this surface. Further improvements should now be achievable here.



Figure 4: The 3<sup>rd</sup> green would benefit from tree removal between the green and 4<sup>th</sup> tee shown here. This bank of trees shades the 3<sup>rd</sup> green in winter, making it more difficult to keep this surface free from humidity/dew and disease.



Figure 5: Turf density was excellent across all putting surfaces as shown here at the 5<sup>th</sup> green. Swards were dense, comprising a good proportion of bentgrass blended with annual meadow-grass and free from blemishes. A height of cut of 3.5 mm is currently being adopted.



Figure 6: The Par 3 6<sup>th</sup> tee was worn following play in recent weeks. In time the aim should be to increase the amount of work completed on tees to raise turf standards through these areas and bring them in line with quality of the putting surfaces.

## Photo Observations and Comments (continued)



Figure 7: Soil profile conditions continue to improve in response to regular aeration including frequent use of the Air2G2 supplementing monthly slim solid tining and the application of around 100 tonnes of sand through the topdressing programme.



Figure 8: This area to the right of the 17<sup>th</sup> fairway has been developed as an area of less frequently mown "Eco-rough" and has recently been cut with the Amazone cut and collect unit. Over time these areas should be maintained with a further reduced frequency of cut.



Figure 9: The area of damage on the 17<sup>th</sup> fairway seen during my last visit in summer 2019 has fully recovered following overseeding. Further flooding has been avoided here although a pond will be reinstated down the right side in time.



Figure 10: Artificial revetting turf Durabunker has been employed to build the 17<sup>th</sup> and 18<sup>th</sup> greenside bunkers. This method of construction has been adopted as they require less frequent rebuilding than traditional natural turf revetting. Whitemoss sand is being used in the new bunkers.



Figure 11: This soil profile from beneath the 17<sup>th</sup> green was slightly different to the rest. This green had more organic matter noted at the immediate base of the turf and if there is the possibility for a shallow hollow core in late summer this would be beneficial.



Figure 12: The practise chipping green is being maintained with zero fungicide applications, to assess how the greens on the course might perform with reduced fungicide inputs. Note however that stress levels are significantly lower here and will impact on outcome. Bentgrass seeding lines were clearly visible following the spring seeding.

## Recommendations

### Eco-rough

- Where areas of less intensively mown rough have been left these look fantastic, setting off the closer mown in-play areas and raising the overall standard of presentation across the course. At present these are mown monthly using the Amazone cut and collect unit.
- Move towards a less intensive mowing pattern, exact timings will depend on rainfall and growth but over the next three to five years I would expect it to be possible to reduce mowing frequency to once or maybe twice per season.
- Ensure that each time cut grass is removed to ensure soil nutrient levels are depleted over time. This will gradually favour a less dense sward, more of the desirable finer leaved grasses and discourage strong vigorously growing grass species. Better quality grassland areas will be developed.
- It will take time to achieve but I am delighted that this is something positive to have come out of lockdown and the period of essential maintenance.
- There are added benefits including reduced staff time spent on mowing, reduced fuel use and less machine hours – all important considerations especially during this current time of economic uncertainty.

### Greens

- The current greens maintenance programme works well to optimise turf quality, smoothness, trueness and ball roll on all surfaces. Although construction type and age are different across the course the greens all perform as very similar playing surfaces.
- Continue with the current approach to maintenance basing work around aeration and sand dressing to ensure ongoing progress in relation to sward composition, consistency, surface drainage and reduction of organic matter. It is excellent that 60 tonnes of sand have been applied to date – aim for the usual minimum of 100 tonnes by the end of the season.
- The fertiliser programme this year comprised an early application of lawn sand followed up by Symbio's SD 8:0:0 (N:P:K) and more recently this has been supported with applications of Symbio's liquid fertiliser. This has been supplemented with applications of Compost Tea to boost microbial populations.
- Next spring it is suggested that a Coldstart fertiliser be applied such as the 11:5:5 (N:P:K) discussed but applied at the lower than usual rate of 25 g/m<sup>2</sup>. This should be applied around mid April just as soils start to warm up and following on from the lawnsand applications usually applied in February and March. This should provide good recovery of all the grasses present including the slower to grow annual meadow - grass element of the turf. The fertiliser programme should be set to apply in the region of 80 kg N/Ha/year and over time try to reduce this further to favour the bentgrass component of the sward.
- Continue to use the Air2G2 regularly (6-7 times as planned for 2020) to supplement slim solid tine work completed with the Toro Procore. If the season allows then a shallow hollow core of at least the wetter greens/remaining soil based greens including the 17<sup>th</sup> and 7<sup>th</sup>/15<sup>th</sup> would be proposed to speed rate of organic matter reduction. Ensure this work is completed whilst growth remains strong and sand dressing can be applied to allow surfaces to fully recover ahead of autumn and winter play.
- There has been discussion previously about installing traditional pipe drainage into the double 7<sup>th</sup> and 15<sup>th</sup> green and it is hoped that this will be possible in the future . Although this green continues to improve in response to maintenance and was kept open over winter 2019/20 it would perform even better if a positive outfall were introduced. The greens drainage leaflet is included for additional reference material.
- Continue to extend out as many of the green's maintenance treatments including aeration, dressing, wetting agent and fertiliser inputs to the green surrounds and approaches as budgets and staff time

allows. The wetting agent applications made to date have worked well to optimise moisture uniformity and surface recovery following the drought. Whilst the 2<sup>nd</sup> approach has benefitted from the additional fertiliser inputs.

- Proactive preventative fungicide applications remain key in autumn when disease pressures are at their greatest. Continue to employ a penetrant wetting agent to optimise winter drainage but just before Christmas include a dew dispersant product to help maintain a drier turf leaf less vulnerable to fusarium patch disease whilst staffing levels are low over the holiday period.
- Applying monthly applications of a good quality seaweed, iron and phosphite product from autumn into the start of the New Year should also form part of the integrated approach to reducing levels of aggressive turfgrass disease.

### Tees

- Look to increase work on Tees once there is sufficient staff time and budget available. The aim over the next few years should be to raise standards to bring them in line with that achieved on greens. Initially concentrate on the introduction of regular wetting agents, blanket sand dressing and releveling where appropriate. Annual blanket overseeding with a fescue and sward perennial ryegrass seed mix would also be beneficial.
- Annual autumn Verti-draining is slowly making progress but constructional problems and soil compaction has reduced the working depth of machines and slowed the rate of progress but continue with this approach.

### Fairways

- There was low level red thread noted on a number of fairways but this will naturally grow out with a return to more usual weather conditions.
- Fairways were Verti-drained by an outside contractor in autumn last year and this work should be rescheduled for autumn 2020. It is a key treatment for maintaining fairways and should be completed annually if possible. Not only does this deep soil compaction relief treatment optimise winter drainage but also improves turf growth and overall turf quality year round.

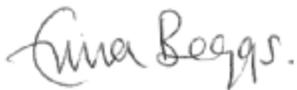
### Tree Work

- Further tree work is scheduled for winter 2020 and it is hoped that the trees between the left of the 3rd green and right hand side of the 4th tee can be removed to reduce shading on this green and improve turf quality and resistance to disease activity here.

## Machinery

- Excellent Investment has been made in the new wastewater unit to ensure that machinery can be washed down and comply with the necessary legislation covered by The Water Framework Directive.
- At present Stuart is able to borrow a Toro Procore for greens aeration work and this is supplemented with the use of an Air2G2 machine brought in as required. Looking to the future it would be beneficial to have your own pedestrian Toro Procore on site to provide greater flexibility as to when and how often surface aeration work can be carried out on greens as well as surrounds, approaches, walk off areas and tees.

Signed

A handwritten signature in black ink that reads 'Emma Beggs'.

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## Technical Note

# PIPE DRAINAGE FOR GREENS

Plan the work well in advance and communicate plans to members to minimise disruption and complaints.

Start work as early as possible in the autumn when ground conditions are most suitable. If the ground is worked when conditions are wet it will have a significant impact on the quality of the finished work. There may also be significant damage caused to the haul routes during the works if the ground is too soft. Aim to complete the work prior to Christmas to allow plenty of time for the turf to re-establish along the drain lines before bringing the green back into use in the spring.

The drains may take in excess of 12 months before they start to pull to their full potential but an improvement should be noted straight away. However, further aeration treatments are likely to be required to maximise efficiency of the installed drainage, helping water migration to newly installed pipes. This should be part of a thatch reduction programme involving other elements such as extra top dressing and scarification/hollow tining.

The guidelines for pipe drainage introduction following excavation of drain trenches are as follows:

- Use 80mm diameter plastic pipe at 2-3 metre spacing depending on conditions.
- In cutting the drain trench, allow for 25mm either side of the pipe.
- There is always the risk of drain lines standing out in the summer which is one of the potential problems with pipe drainage introduction compared with redevelopment. Introduce a 60:40 rootzone at a uniform firmed depth of 300mm and a minimum of 250mm.
- To ensure bridging factors are met and to avoid rootzone migration into the gravel over time, it is important to test the suitability of proposed materials in the STRI Laboratory prior to proceeding.
- Whether a blinding layer is required depends on the choice of gravel size. An 8-10mm gauge aggregate could be blinded with 50mm firmed depth of a 1-4mm hard washed grit.
- The aggregate should be a washed, hard aggregate that is not limestone or sandstone.
- In order to dispense with the blinding layer the aggregate size can be reduced to a 3-6mm gravel. As a guide, the blinding layer or rootzone should be around one-sixth of the aggregate size. The depth of aggregate will depend on the drain depth, preferably 600mm but at least 450mm.
- Adequately firm each layer. Once the backfill has been completed, re-lay the stripped turf flush with surrounding ground, not proud in anticipation of settlement. If there is minor settlement then the unevenness can be selectively top dressed. Scalping of the turf should be avoided.
- Finally, give a light roll and top dress. Bringing the green back into play will depend on how quickly the turf knits in. Once the turf is fully integrated and a good surface has been restored, subsequent maintenance should involve tining and top dressing to maintain through flow of water past the initial base of the turf and organic layer into the growing medium and drain below.