Oatlands Golf Club - reconstruction works for golfing strategy, fairness and water storage benefits.

Over the last nine months, the Oatlands Golf Club in NSW has been in the throws of constructing three new greens complexes, two new tees and have created a new landing area across a ravine on one of the redeveloped holes.

Redeveloped 5th hole at Oatlands Golf Club

The works were more substantial than this short introduction suggests as it involved shifting 30,000m³ solid volume of sandstone boulders and crushed sandstone. This equates to a loose volume of 40,000m³, which is similar to a rugby or soccer field 2 - storeys (6m) high. This massive earthworks project was generated from the decision to bolster the Club's existing water storage by four times its original capacity.

The impetus for the reconstruction works were:

- the need for adequate sustainable water supply to limit expensive recurrent potable water costs and any potential drought usage restrictions. It has also fulfilled a stormwater retention function required by Council.
- the preparation of a Course Master Plan that identified a range of course improvements that would be undertaken as resources permitted.
- the desire generally by the membership to improve the course and reflect current standards of presentation.

WATER STORAGE

The Club's water storage dam is serviced by both urban and bushland runoff and towards the end of last year its capacity was increased from 7 to 30 megalitres! This has extended the Club's summer storage potential from four to six weeks to a more sustainable two to four months.

Subsequently, the club has undertaken a major irrigation system upgrade throughout the course whereby a single row asbestos/galvanized pipe system has been replaced by a modern dual row irrigation system managed by individual sprinkler control from a remote or Toro LTC+ main controller.

As Murphy's Law would have it, it hasn't stopped raining since!

MASTER PLAN

A range of potential layout modifications were investigated and presented to the Club to invoke discussion and ensure alternatives were considered but budgetary constraints, loss of mature trees and extensive disruption to play ruled out any radical change. This being the case, the Course Master Plan aimed to 'finesse' the existing layout. The Club's key requirements were that the design be a 'members course' and no 'buried elephants' in the greens.

Primarily, the Course Master Plan involved;

- Progressive rebuilding of greens with strategic improvements to shaping and bunkering, allied with ease of maintenance.
- Review of tee sizing, orientation and shape.
- Fairway bunkering and mounding for strategic challenge and rating balanced by select landing zone benching to eliminate steep crossfalls.
- Upgrading of selected water bodies and associated landscaping
- Reduce the risk of 'errant golf balls'.
- Landing area and sightline improvements to benefit fairness, speed of play and golfer safety.
- Improve course drainage and other turf health and maintenance issues.

These changes were undertaken in the general context of increasing the strategic thought, shot precision and risk/reward challenges for better player, whilst providing a fair and appealing course for the other members.

The Master Plan identified only one zone essential for major earthworks on the site. It was a 300 m long by 20 to 50 m wide area along the more secluded eastern margin of the site abutting steep bushland.

The primary intent of these proposals was to;

- Make the 165m par three 5th, playable by senior members and short hitters. Playing the old hole from the members tees required a carry of 125m from an elevated tee over a ravine with no bailout zone and a steep batter up to the green that often caused the ball to roll back into the ravine if hit short. A carry of approximately 150m isn't achievable on a regular basis by a number of members with many players opting to play for the 10 x 12m ladies tee bench which then offers a shorter carry opportunity over the ravine to the then elevated green. This is a tough and disheartening way to be forced to play a par three early in a round!
- Extend the short (274m) par four 16th by using localized filling to add an extended rear tee. As a separate works a slight dogleg and setback new green was also proposed. Overall this offers a short but challenging 310m par four.
- Relocating left and elevating the 15th green above the adjoining bushland and fig tree to create an exciting and long par five. This also assisted safety at the adjoining 16th tee.

FLEXIBILITY IN DESIGN AND CONSTRUCTION

The decision by the Club to enlarge the water storage was opportune and wise in that it made the Course Master Plan projects far more feasible, especially as they were near to the dam site and in the more secluded section of the course.

The Master Plan designs were more limited in earthworks as it is practical to assume that few clubs want over a thousand fully laden trucks traversing to the far end of the course if satisfactory improvements to the playability or strategy of the hole can be made with less fill.

Detailed designs were fast tracked early in the dam construction to meet changing excavation material type and volumes and design

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requirements and as the project developed, often significant changes were made to configuration of batters, elevations of greens and tees and the dimensions and positioning of fill zones.

The hole numbering at Oatlands has been recently altered such that the 3rd is now the 5th; 4th the 6th; and 13th the 15th.

Key features of the project included;

The 5th Hole

This par three from an elevated tee across a ravine to an elevated green was well known by members and visitors due to its undoubted difficulties for the shorter hitter and challenges for most others. The lack of even a marginally fair bailout area was a problem.

The proposal elevated the rear tee by 2 metres and carefully stepped down the tees to allow a glimpse of the rockwall edge that retained the ravine fill. This also allowed a clear view of the target. The green was lowered by one metre to both lessen the steep batter in front of the green to a mowable slope and to increase the rear mound effect so that balls didn't readily roll through occasionally in front of the next tee.

The bunkers previously were at the side and rear of the green behind mature trees so of reduced effect. As the front slope was now gentler (although balls could still roll back to a lower pad depending on the turf mowing height) it was decided to place two bunkers in front of the green. This retained the previous need to carry the green to get on for a birdie putt so the hole loses nothing for the good player. Indeed the green shaping on the tight left side ensures the 'championship' pin will be a real challenge requiring great precision to get close.

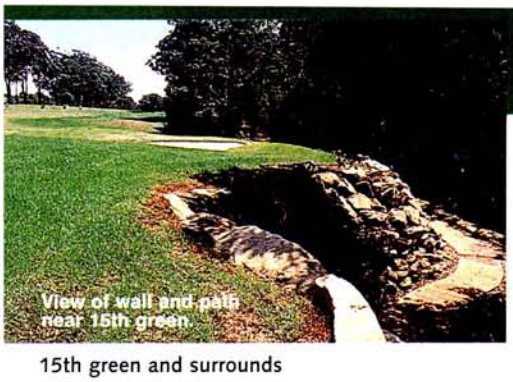
The 6th green and approach

A ridgeline nine metres above the tee in the landing area limits length off the tee. The small original green well below the ridge was therefore a blind approach to all but long hitters on this 408m par four rated as the toughest on the course. Unfortunately, poor drainage on the shallow soil over a rockshelf just in front of the green also often meant that the second shot must carry all the way to the green if it was to be reached in regulation.

Sealed rock lined channel to divert flows around the fairway.

The proposal therefore involved:

- Intercepting ground water seepage and surface flows into a sealed rock lined channel to divert flows around or be piped under the fairway (rocks obtained from the dam excavation).
- Elevating the poor draining area to allow fairway crowning and sufficient depth for stormwater pipes.
- Elevating the green by around 1.5metres so either the green or the pin was visible to many more players.
- Enlarging the green from 350m^2 to 580m^2 to better reflect the difficulty of the approach length. The steep hand mown batters on the left were replaced with two gentle grassy hollows to catch the marginally offline approach from rolling down the higher but maintainable batter. If well offline the batter comes into effect and the recovery is more challenging. On the right, low mounds and batters to the surrounds add interest with well off line shots hoping to avoid the rocky cascade.



View of wall and path near 15th green.

15th green and surrounds

Prior to works, the par five 15th offered players greater than 70m from the green a blind shot in and if left, a steep batter often deflected the ball into thick bushland.

The elliptical green was reshaped and dam excavation works fill permitted the green to be raised almost 3 metres. The green was also enlarged to offer a fairer target visible from significantly further down the fairway and was pushed further left and closer to bushland to protect players on the 16th tee to ensure the hole retained its excitement and challenge. A 6m-high sandstone wall retained the fill and bunkers and low mounds with a wider surround were incorporated to catch the marginally offline shot to the left or rear.

Players on the green will now be close to the bushland with a sense of being in the tree crowns. A mature fig next to the green is a feature that was retained.

16th tee

The proposed tee extension for the short par four 16th was into disturbed bushland on a 1 in 2.5 to 1 in 3.5 steep batter below the existing tee. The availability of fill and sandstone boulders for batter facing enabled the 16th tee to be extended back 20m. This required up to 8 metres of fill. The rear tee was also trebled in width and kept slightly raised to offer a quality ample teeing ground.

The shaping retained existing significant trees and was integrated into the adjacent 15th green surrounds with mounds and hollows used to effectively widen the separations.

The ultimate increase in hole length from 274m to around 310m with a slight dogleg will assist a stronger closing sequence of holes at Oatlands.

Sandstone rock walling

The availability of large sandstone boulders from the dam excavation was critical in allowing stable rock facing of the fill batters, generally 5 to 6 metres high. At the ravine, the wall was over 10m high. A Geo-technical Engineer designed the keying in footings and determined acceptable batter slope gradients, backfilling and drainage. The rock facing was massive with over 2,250m2 of face area. This equates to a rock wall 5.5metres high and 400 metres in length! The course design used a 'waving line' for the wall intergrating the course features and landform to best effect.

OPENING FOR PLAY

Subject to more favourable (drier) conditions which are affecting the grow-in, new greens, tees and other improvements should be ready for play in late Autumn.

Mike Wolsey, (Secretary Manager), reports very favourable comments from members and guests as the new holes begin to take shape.

Future improvements to the course will be of less magnitude, but will reflect the desire of the Club to enhance the course throughout. The new irrigation system and added surety of water supply will also greatly assist course presentation and playing conditions. The recent reconstructions integrate some exciting yet fair golf holes to ensure the popular Oatlands Golf Club, now celebrating its 70th year, is well placed to move forward into the future.

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