# PORTARLINGTON GOLF CLUB ASSESSMENT OF LAWLOR'S WOOD FOR EXTENSION OF GOLF COURSE

#### 1. INTRODUCTION:

Portarlington Golf Course situate to the north of the River Barrow in the townland of Garryhinch is a 9 hole course extending over about 83 acres. The club members are at present considering a proposal to acquire a further 22 acres of State owned forest land. An assessment of the suitability of this forest land for use as a golf course is the subject of this report.

#### 2. BRIEF:

The writer was instructed by the President, Mr. Oliver Egan, on 3.3.86 to inspect the lands under consideration and give an opinion on the practicality of transforming the woodland into a golf course.

#### 2.1 Documents

Copies of the following documents were made available.

- 2.1.1 Plan of Portarlington Golf Club 1981 prepared by S. Walsh.
- 2.1.2 E. Hackett's report of 15/12/83.
- 2.1.3 Provisional 18 hole plan accompanying E. Hackett's report of 15/12/83.

## 3. INSPECTION:

The writer visited Portarlington Golf Club on 11.3.86 where he was met by the President, Mr. O. Egan, the Secretary, Mr. L. McMahon and the Captain, Mr. J. Brady.

The inspection comprised examination of the existing golf course and surrounding lands, the adjoining section of the River Barrow and the area of forest land under consideration. A level survey was carried out to establish relative levels and ten trial holes were dug in the forestry to examine soil conditions.

## 3.1 Existing Course

The existing course is on undulating parkland with a general north south slope towards the river. Examination of the drains shows that the subsoil is mostly a sandy/ silty loam with areas of localised clayey and peaty soil requiring drainage. The drains from these soft areas are operating effectively because of ground conditions and a satisfactory cross-fall on the course. At time of inspection water levels were very low but from my examination I would be of the opinion that the existing course dries out quickly after heavy rain and is very rarely unplayable.

## 3.2 Level Survey

A line of levels was taken from the 7th Tee through the forestry. (See Section A.A on Drawing No. 8601/5 enclosed.) An arbitrary datumn of 100 was taken on the centre of the bench at 7th Tee. The ground level of the 7th Tee is about 99.6 m. relative to this datumn. The ground in the forestry is fairly uniform in level with occasional high points and some hollows. It can be seen from the section that there is only a small fall across the forestry (1:375). The average level is about 98.2 relative to the datumn, i.e. 1.4 m. lower than the ground behind the 7th tee. The natural river bank is only 0.75 m. higher than mean ground level within the The mean water level in the river is only 1.41 m. below mean forest floor level. The fall across the forest floor towards river is only 1:375. In comparison the fall across the existing course is in the order of 1 in 200 say.

#### 3.3 Trial Holes

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Ten trial holes were dug in the forest. The locations are shown on Drawing No. 8601/5. Depths are in mm. below ground level at hole location.

## 3.3.1 Trial hole 1

0 - 75 topsoil

75 - 200 subsoil

200 - 690 grey silty sand

690 - 700 bottom. Stoney firm grey silty sand.

#### 3.3.2 Trial hole 2

0 - 75 topsoil

75 - 710 fine river sand

710 - 730 bottom. fine sand with some clayey silt.

#### 3.3.3 Trial hole 3

Taken in a natural hollow about 400 mm. below general ground level.

0 - 600 sandy topsoil.

#### 3.3.4 Trial hole 4

Taken in a natural hollow about 1 m. below general ground level.

0 - 100 topsoil

100 - 475 sandy loam

475 - 500 bottom.firm sandy loam.

# 3.3.5 Trial hole 5

0 - 100 topsoil

100 - 600 stoney loamy sand

600 - 700 bottom. silty sand.

# 3.3.6 Trial hole 6

0 - 170 sandy topsoil 170 - 500 bottom. fine silty sand.

#### 3.3.7 Trial hole 7

0 - 125 clay topsoil 125 - 620 bottom. grey/brown marl (clayey silt)

#### 3.3.8 Trial hole 8

0 - 50 topsoil 50 - 300 light grey sandy loam 300 - 400 bottom. fine river sand.

#### 3.3.9 Trial hole 9

0 - 100 topsoil 100 - 350 bottom. medium sand.

## 3.3.10 Trial hole 10

0 - 100 sandy loam 100 - 350 bottom. medium sand with stones.

#### 3.4 River

An inspection of the river shows that it was drained in recent times (1940 - 50) and high spoil banks form the forest boundary at the river. The river is free from obstruction and has a uniform cross-section, with sandy/stoney bottom and sides. Prior to the drainage scheme the river in times of flood flooded the forest floor and deposited sand in the area.

#### 3.5 Ordnance Survey

Examination of the relevant Ordnance Survey maps of the area show that the forest known as Lawlor's Wood was at time of 1st edition of Ordnance Survey 1838 a mature mixed plantation with well developed rides and was part of the Garryhinch Demesne. (The parkland of the existing course was similar to that pertaining today). The 1910 edition shows a similar extent of plantation as that of 1838 edition but some of the rides have been abandoned. Both editions show an area marked liable to flood (see Drg. No. 8601/5).

Because of the low-lying nature of the ground and its liability to flood it was only ever considered as suitable for forestry - in contrast to the higher adjacent free draining parkland which forms the present golf course.

## 4. SUITABILITY OF LAWLOR'S WOOD:

# 4.1 General Requirements

The principal requirement of a golf course (other than strictly golfing considerations) is that the turf should be free draining, firm and be of sufficient quality to take continual traffic. Golf courses located on sand in coastal/beach areas have this advantage. Fertility of ground is not a major consideration, in fact very fertile ground creates more maintenance in grass cutting during the growing season.

Ground which becomes waterlogged, is subject to flooding or slow to drain is not ideal for course building.

## 4.2 Advantages of Lawlor's Wood

4.2.1 Location The location of Lawlor's Wood as a possible area for course extension is ideal in that it bounds 70% of the southern perimeter of the existing course and no road or river crossing is necessary (as would be the case if a northern or eastern extension was to be considered).

The only other areas as suitable for extension are the fields and woodland to the West of the clubhouse.

## 4.3 Disadvantages of Lawlor's Wood

4.3.1 <u>Trees</u> While mature trees are a great asset to any golf course, in this instance extensive tree felling and stump removal will be costly and in the process the thin layer of topsoil may be destroyed.

The commercial value of the trees removed is unlikely to cover the cost of stump removal and land reclaimation

#### 4.4 Soil and Drainage

The topsoil is about 100 mm. thick and could support grass. Removal of trees and stumps will disturb this shallow topsoil and as a result some areas may be left bereft of any topsoil and consequently it may be necessary to import topsoil

As can be seen from the trial hole logs the subsoil is generally sandy in nature except in low lying hollows where the soil is peaty and clayey. The sandy subsoil will drain readily provided the water-table (natural ground water level) is not close to the surface. Unfortunately in this area the water table is likely to be very high (close to the surface) for the greater part of the year because of the relative levels of the river water and ground level. Also the fact that the ground is nearly level reduces run-off rate and draw-down.

During times of flood it is very unlikely that the river will overtop the spoil banks but ponding of rainwater will occur within the wood because the water-table will be at or above ground level.

The trees because of their high water demand draw down the water-table and thus give a deceptive impression of drainage conditions.

## 4.5 Course Building

To reduce the effects of the high water-table on the course surface it is desirable that greens and tees be elevated over existing ground level and at least some portions of the fairway. Drainage ditches similar to that on southern boundary of the course should be constructed to assist in drawing down the water-table. These ditches should not breach the existing spoil banks but should outfall to the river with existing drain adjacent to the existing 8th fairway.

#### 5. CONCLUSIONS:

- 5.1 Lawlor's Wood is the most suitable location for expansion of golf course.
- 5.2-The ground within the wood can be made suitable provided drainage works and raising levels of greens, tees and some fairways is implemented.
- 5.3 During periods of very wet weather some flooding will occur.
- 5.4 The commercial value of the timber will not offset development costs resulting from proximity to river.

5.5 Lower costs would be incurred in developing farmland adjacent to the course (to the west and north across the road) to provide a course extension.

For McCabe, Delaney & Associates

20.3.86