Twenty-five new courses were building in 1970. Probably 100 or more are being planned. Last month in Essex and nearby I counted seven schemes on the move — 11 in East Anglia at least.

The golf club secretary will often be consulted. Damping misplaced or encouraging justified enthusiasm may save one man a needless expense and another a missed opportunity. Forget about golf architects for the moment. Do it yourself. This is how to sum up a site and may even help decide if that field on which your committee has had its eye for a long time is worth acquiring or not. But, if in doubt, the golf architect may be the only person able to handle the complicated relationship between layout, cost, construction, maintenance, the strategy of the game and players’ psychological reactions.

1. Area
Reckon 100-150 acres for 18 holes. The upper limit applies where steep slopes, bog, woods or rock have to be avoided. The lower limit, or rather less, is adequate on flatter sites or where, say, 5,750 yards will be acceptable. Let the site dictate length not an arbitrary standard. The worst mistake is planning for too much length in a small site. A good nine-hole course is generally preferable to a very short and congested 18. If only nine holes are possible, however, future extension to 18 should at least be visualised in some form.

2. Length
A rough guide for estimating potential length is as follows:

<table>
<thead>
<tr>
<th>Acres</th>
<th>Yards</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 90</td>
<td>5,600 - 5,800</td>
</tr>
<tr>
<td>B 100</td>
<td>5,800 - 6,000</td>
</tr>
<tr>
<td>C 110</td>
<td>6,000 - 6,200</td>
</tr>
<tr>
<td>D 120</td>
<td>6,200 - 6,400</td>
</tr>
<tr>
<td>E 130</td>
<td>6,400 - 6,600</td>
</tr>
<tr>
<td>F 140</td>
<td>6,600 - 6,800</td>
</tr>
<tr>
<td>150+</td>
<td>6,800+</td>
</tr>
</tbody>
</table>

These lengths will be exceeded on easy sites but will be reduced by physical obstacles or awkward boundaries which limit land use. The clubhouse area will need 3-4 acres and a practice ground at least the same.

Resist the temptation to provide 7,000 yards in 100 acres and especially preparing a plan to show how it is possible. It isn’t.

3. Contour
Slopes of 1 in 10 are just golfable sideways. Steeper slopes need special treatment. A continuous series of steep slopes may rule out the site. Frequent changes of contour in a short distance also lead to visibility problems in planning. Many abandoned courses were very hilly. Ignore the enthusiast who talks about “flattening it out with a bulldozer”. This should only be necessary in restricted areas.

4. Shape
Most farms and old parkland lend themselves to golf course layout but sometimes sub-division leaves odd shapes. Where fields jut out they should be not less than 140 yards wide and preferably 350 yards long = 10 acres. A smaller one might do for a practice ground near the clubhouse. Clubhouse sites at the end of a long, thin field rule out a second starting point nearby.

Sites split up into two or three separate areas need extra care even if total acreage looks adequate. Road crossings between holes are not agreeable except in rural areas and introduce slight maintenance problems.

5. Soil and Drainage
Mixed farming implies an acceptable site but light land with poor return on cereals is preferable to clay. A slow draining clay site will produce poor playing conditions unless considerable extra money is spent. Good drainage is vital for heavily used courses. Improving fairways might cost £12,500 and close drainage as much again. In comparing costs of alternative sites, therefore, add up to £250 per acre for a wet site as against a dry one.

Provided trees are fairly isolated or in groups, old parkland is very satisfactory because of the thick cover of mould developed over the years and the ready-made landscape. But putting too many holes into a landscaped park may
destroy the one thing that should be preserved.

Sites on industrial waste may attract Government grants but absence of top-soil always suggests great expense. Less than a 4in. depth may also cause difficulty. Technical advice is needed before a final decision.

Heath land and rough grazing will generally produce a good course provided there is a fair cover of soil and reliable drainage. Bad drainage, however, may only be due to a pan which can be broken by sub-soiling.

6. Vegetation

Meadowland can usually be worked down to a fair turf and this saves money. But a surface very uneven or hoof-marked will have to be cultivated and sown.

Creeping buttercup, sedges, rushes, marsh thistle, tufted hair grass and water mints indicate wet land. Where grass is retained, there will be no question of improving soil conditions except by land drainage.

Scattered trees are very desirable but woodland is expensive to clear because roots have to come out. This leads to a lot of disturbance. Tree clearing on clay sites in winter may damage soil structure for years.

7. Practical Factors

Good access is prized by planning authorities. Entry off fast roads or by long, narrow lanes is not approved if the course will generate much traffic. Objections on this score seem to diminish if the authorities want the course there in the first place, but they grow if there has to be a public enquiry.

Footpaths through the site may lead to inconvenience, danger and vandalism. They can sometimes be diverted to a boundary but closure is rare. On the contrary, some urban authorities are now looking for new paths through golf courses because these areas may be last nature reserves left in their district.

Busy roads and back gardens near the site spoil atmosphere but can be screened. An extra safety margin will be necessary. This can reduce the acreage for planning the course by an acre per 150 yards of boundary concerned.

Streams, lakes and ponds can generally be worked into the layout to advantage. Rivers may pose bridge problems. If flooding occurs, think twice and find out how often and how deep. River boards may object to changes in contour in flood plains where flow might be impeded.

A water supply is essential for a high standard of maintenance. Automatic systems save labour but cost £9,000-£10,000. Maximum water requirement (greens only), 12,000 gallons per day. Automatic systems should apply this at night in, say, eight hours = 1,500 gallons per hour.

Buildings on the site may be useful for machinery or conversion to staff houses. Unless they have some historical or aesthetic value, converting them to a clubhouse is to be discouraged.

8. Summary

Walk the site with a plan. Remember that the total acreage will be reduced by awkward shape, steep or boggy land and potentially dangerous boundaries.

Assess the soil as light, medium, heavy, pure sand or absent. If it is farmed, it can be worked. If it is derelict or only grazed, be careful. Sites with no true top-soil may be suitable but too expensive to develop. Grassland involves least expense; arable land, average expense; dense woods, poor drainage, heavy clay, absence of top-soil, greatest expense.

Slopes steeper than one in 10 should not be general and, if so, assess the effort of nine uphill holes on the gradients walked.

A short access off a "B" road to an elevated clubhouse site looking southwards across the course would be ideal. Farmhouses are often put in such position but a new clubhouse will generally be cheaper and better than a conversion.

In general, sites unsuitable for a golf course are either too hilly, too wet, too barren or too small.

9. Site Factors in Brief — 18 Holes

Area.—100 - 150 acres.

Shape.—"Farm" shape, compact, and free of awkward salients.

Contour.—Long, steep slopes may involve nine uphill holes. Short, steep slopes complicate good planning. Easier

(Continued on page 12)
slopes permit oblique climbs with less effort.

Soil / Vegetation. — Type, depth: arable, grass, trees, heath, scrub, woodland.

Drainage. — Extra cost, especially on flat sites.

Boundaries. — Roads, houses = extra safety margins.

Pools, Streams, Rivers. — Flooding? Possible use for course water supply?


Buildings. — Suitability for machinery, storage, staff houses.

— a lack of common sense, and no consideration for the majority of members whose subscriptions keep a club going. It is acceptable that a fairway should taper inwards as it nears the green, the striker is playing a shorter shot and, therefore, a more controllable club. But from the tee, it is the good player who should be tested, not the inept or the elderly. A consideration which not all committees keep in mind.

At this stage we should properly turn to the other items, the clubhouse and the catering. However, they are outside the province of this journal, and so the protagonists of the "gin palace" and those who prefer simplicity must be left to fight it out for themselves.

I shall conclude with a little story told by Bobby Jones, and therefore true. The right hand side of a fairway he was playing in a tournament was guarded by a field of tall wheat! He cut his drive into it. To hasten the time in looking for the ball, his caddie grounded the bag of clubs. They found the ball, and took a considerably longer time in finding the clubs.

In the days when I played, not too ineptly, straight driving was my best stroke. This came about because I learned on a tight course, and was not "state-aided" in the matter of golf balls by my father.