## All new style miniature golf guide

Miniature golf has come a long way since its first inception. Today a course must meet different criteria than in the past. Miniature golf players have far greater entertainment expectations when they visit miniature golf courses. The play on the course has to be interesting and challenging, without becoming overwhelming. It must entertain youngsters as well as senior citizens and everyone between.

Years ago there was a strong interest in "gimmick" miniature golf. Today we see far more interest in "golf in miniature" with realistic fairways, challenging play and often a themed background. Where tourists comprise the major traffic, facilities often rely on heavily themed facilities in order to attracted business from their competitors. Local markets require more challenging play over theming to maintain repeat business.

Or in brief- a major shift from standard courses with windmills and barns for obstacles, to landscaped courses imitating real golf with water, rough and sand hazards.

The purpose of this guide is to provide you with an affordable way to build your own new stile miniature golf without breaking the banks. The free version of this guide does not include a complete set of construction plans and AutoCAD files, but you can order any plan that will match your area and style best at <a href="https://miniaturegolfplans.com/design.htm">https://miniaturegolfplans.com/design.htm</a> and you will receive A FREE CUSTOMIZATION – this bonus alone will save you several thousand dollars.

# BRIEF DESCRIPTION FOR THE CONSTRUCTION OF THE FAIRWAYS AND THE TREATMENT OF THE TERRAIN

#### I. General

The construction area must consist of a usable area of 800 - 2000 m<sup>2</sup>. As much as possible, existing trees or shrubbery should remain, only useless elements or elements hindering the normal construction of the fairways are to be removed. On sloped or uneven ground, the natural slopes will be taken into account for the construction of the fairways whenever possible.

#### II. Preliminary Work

After determining the construction site and the measurements (survey plan) the following will take place

a) Preparation of a scheme of the game ground (scale 1:100), where the fairways are arranged in the order prescribed in the detail plans (No. 1 through 18);

b) staking out the fairways in the area;



e) Plowing up and preparing the ground, giving consideration to the arrangement of the fairways.



#### CONSTRUCTION OF THE FAIRWAYS

**1. The substructure** must go 15 cm beyond the border of each fairway and the minimum depth below the level of the natural ground must be at least 25 cm. The ground will be arranged horizontally.



2. The layer of stone consists of either gravel (broken rock size 40/6 and 25/40 or coarse pebble (size 40 mm) evenly spread and rolled manually. The thickness of the layer of stone is greater or smaller depending on the state of the ground. After rolling, the layer of stone shall be at least 15 cm on bearing loamy soil and can be as much as 30 cm on softer or uneven ground. Climatic conditions must be considered for the thickness of the layer of stone; maximum strength is to be selected for areas with high precipitation or risks of frost.



3. The reinforced slab, which constitutes the actual fairway, will be poured in forms using Portland concrete ( $300 \text{ kg/m}^3$ ). Thickness will be 10 cm. The surface of the layer must be absolutely horizontal for all fairways or parts thereof. The surface of the slab will remain as rough as possible in order to warrant secure resting of the layer (of colored concrete).

The reinforcement consists of two layers of dispersion rods, 5 mm diameter, crossed in distances of 15 mm or preferably of ,,Perfect steel web or similar of 3 mm mesh size 8/15 cm.

The first reinforcement will be laid approximately 2 cm above the lower side of the slab, the second approximately 2 cm below the slab surface.

The reinforced slab will be in the form of the especially profiled fairway parts (bends-entrenchments or starting hill). The raw moldings will be created by means of cast concrete.

The arrangement of the holes (goals), the tee-off areas and the obstacles in the fairway slab is done with careful consideration and strict adherence to the prescribed measurements.



4. **The frame of natural cement** (half sand, half cement) will be poured in special molds of structural iron. They are reinforced in the upper part by means of steel rods, diameter 6 mm, and accurately connected to the slab. For this purpose, the borders of the slab are not concreted at the same time as the main part and the ends of the upper reinforcement are curved up 5 cm. In distances of 2 m, drain openings of the appropriate size are provided for.

Instead of the locally poured frame of natural cement, frames of bricks or trapeze shaped pavement can be used.



5. Then the artificial grass is cut and glued to the surface. Use artificial grass for rough and water hassards:





#### **IV. Construction of the Obstacles**

The obstacles, especially in regards to their arrangement and their dimensions, will be built according to the directions of the schemes and detailed drawings.

As far as the types are concerned, you have certain freedom of choice when selecting the material and how to apply it. <u>For Example:</u> The simple obstacles can be made of natural flagstone, artificial stone, painted full bricks or clinker, depending on the desired decoration effect. The same applies to the design of the visible stonework of certain massive, obstacles like entrenchments, small walls, pay / ticket office, etc.

For obstacles made of boulder, the use of natural rock in irregular shapes or mountain rocks (granite or limestone) is recommended.



#### V. Illumination

Mini Golf can also be played in the evenings; therefore, good illumination has to be provided for.

The illumination can be realized by means of candelabra, hanging lamps occasionally combined with mushroom-shaped floor lamps. Arrangement will be according to the fairways, as well as the prevailing conditions of the terrain and the plantation. Illumination devices should be placed so as to avoid shadows being thrown onto tee-off areas and goals.

The lighting fixtures should be located approximately 3 m above the fairways with appropriate lamps, each 300-500 W. Operation will most practically be from the ticket/cashier's office in the entrance area.



#### VI. Stone Walkways, Type of Ground, Planting and Lawns

Following the construction of all fairways and obstacles, walkways will have to be constructed. It is recommended to use natural flagstones in irregular shapes, which are laid onto a sand bed. The flagstones should be placed in-distances of 3-4 cm from one another. For the connecting walkways between two fairways, the flagstones can be placed further apart, in some cases, ordinary steps may also be sufficient. - Natural stone stairs will be used to connect fairways in sloping terrain.



Please note that the flagstone walkways have to be constructed according to the sequence of the fairways in conformity with their numbers, so that they will guide the player through the playing area, from the left of the fairway into playing direction.

After construction of the flagstone walkways, the open areas remaining will be completed. If necessary, garden soil will be added, and planting work will begin - groups of trees and, shrubbery, flower arrangements - and the lawn area will be sown. A good quality lawn area is important.

Thereafter, the fairways will be provided numbers according to the game rules and the information signs will be set up.

Finally, benches and tables (garden furniture or natural stone systems), possibly ashtrays on stands, etc. should be set up.



#### VII. KIOSK:

For the operation of mini golf facilities, it is essential to have a covered, lockable room for the following functions:

- Cashier, issuing of sports equipment
- Storage of sports equipment
- Storing of miscellaneous tools
- To accommodate the sanitary facilities
- To house a cloakroom, etc.
- To provide protection during sudden rainfalls

Shape, dimensions and furnishings are dependent on the functions and will have to be adjusted to the local situations in every case. Even if some of the functions mentioned above can be housed in existing and neighboring facilities, the cashier's/ticket office as well as the room for issuing and returning sports equipment has to be planned for within the immediate proximity of the entrance. You will therefore, in most cases, not get round setting up a kiosk.

As far as structural matters are concerned, every architect or building contractor will be able to assist you. However, remember that the following requirements must be realized:

- From the inside of the kiosk, it must be possible to easily overlook the entire area.
- It must be ensured that doors and window can be securely closed during the winter.
- Sufficient ventilation must be provided for the toilet rooms.

- As far as possible, issuing and taking back the balls and putters shall take place without impediments.

- An appropriate room has to be provided for the personal sports equipment of regular players.

- A sufficient number of waste containers (trash cans, ashtrays, etc.) shall be available throughout the facilities.



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