

Functional Requirements for New Archery Facility

Introduction

The archery facility, which is proposed to replace and enhance that currently located at Jubilee Park, comprises three main components: an indoor range building together with an outdoor range located within a secure perimeter. This document attempts to identify the functional requirements of each of these components. These requirements are not exhaustive and will be developed further in consultation with the project architect.

Since the facility will be subject to a 99-year lease, it must be able to cater for a significant increase in club size and possible increases in safety zone dimensions required by the NGB. In addition, low running costs must be a major feature of the design.

Summary

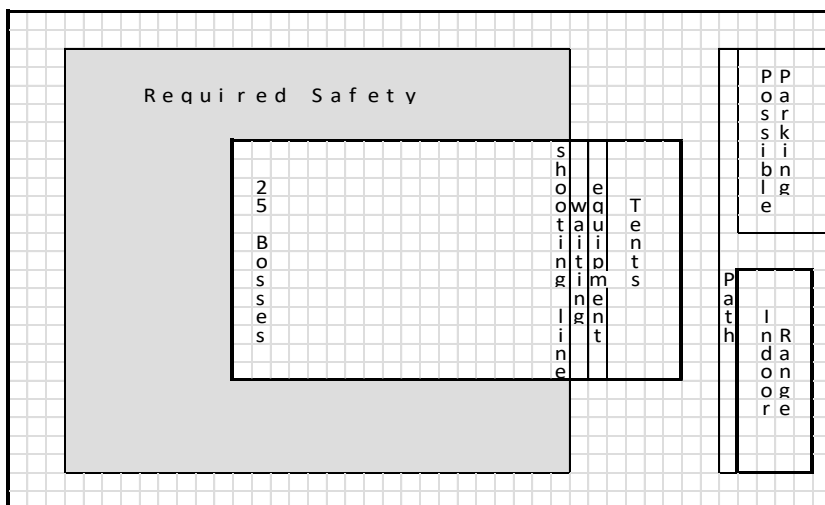
The facility will be exclusively for the practice and support of archery.

The overall dimensions will be approximately 220m ± 10m x 130m ± 10m

The facility will consist of

- a) A secure perimeter
- b) An indoor range/clubhouse/storage building
- c) An outdoor, 25-boss, 90m/100yd range aligned S → N ± 20°

A possible schematic layout of the archery facility, together with likely dimensions is shown below:



	Metres	Yards
Field length:-		
Excess safety	15	17
Overshoot	46	50
Range length	92	100
Waiting Area	5	5
Equipment Area	5	5
Tents	18	20
Benches/Sitting area	10	11
Path	3	3
Indoor range(outer width)	23	26
Space to fence	3	3
Total length	220	240
Field width:-		
Boss line (25 x 3yds)	69	75
Safety (25yds each side)	46	50
Excess safety(10yds x 2)	18	20
Total width	133	145

□ 5 metres square

A. Secure Perimeter

This must not allow access to the public or users of other areas of the Sports Hub except at specific and defined points.

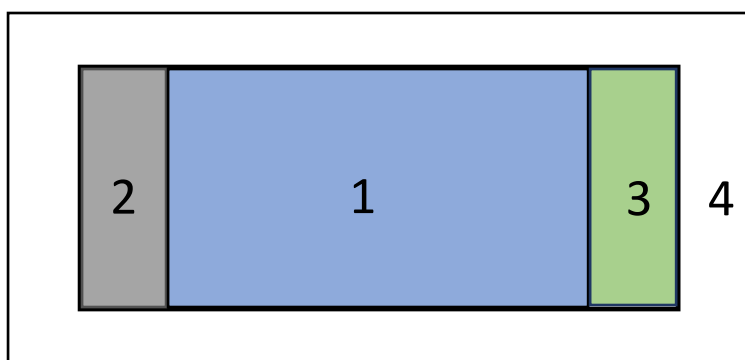
Access for grass cutting/maintenance (need not be through main gate)

The Boundary to have an impenetrable, rabbit proof, security fence inside an earth bank and hedge as at Jubilee park.

Gates must be lockable and accessible to all authorised users, regardless of physical ability.

The perimeter should provide visual obstruction from within and without the facility, so that archers and users of other facilities at the Sports Hub may not be distracted.

B. The Indoor Range Building



The indoor range building comprises four distinct elements:

1. The shooting range.
2. The Storage and workshop areas.
3. The “Clubhouse” area.
4. The external areas including access provision.

All areas to be accessible for persons of limited mobility

1. The Shooting Range

Normal access should be from behind shooting line

Dimensions to allow 8 Target Bosses and shooting at all recognised ArcheryGB and World Archery indoor distances up to and including 30 metres, namely 41m x 20m.

The range wall height should be a minimum of 5m to allow an unobstructed arrow trajectory at all distances. However, it should be as low as possible to reduce heating costs

Walls and roof highly insulated.

Structural elements below roof level should not intrude into the range area.

Access to storage area

High-level natural lighting eg translucent roof lights

Low energy lighting

Lighting levels in accordance with *CIBSE Lighting Guide 4: Sports Lighting, Section 3.1, Archery Ranges, 2006*.

Low energy heating, eg air source heat pumps. Preferably underfloor heating but to be determined after discussion with designer.

Power outlets to permit cleaning, maintenance and other functions, eg IT, signage, shoot timers.

Arrow-stop netting behind the target line and at least 1m from the back wall. Provision of rails for two layers preferred.

Sacrificial covering for wall behind targets. OSB or fibreboard, 18mm – 25mm

Floor finish: colour-zoned carpet.

Wall finish: pale green

Access to “Clubhouse”

Access to Outdoor range via doors with shutters

Direct access to storage area. “One way” door and warning light

Emergency Exits

Provision of cabling and supports for coaching cameras

2. Storage and Workshop Area

Adjacent to the range

To include storage for all club equipment plus a workshop area.

a) Storage

Sufficient space to store 18 bosses and stands, target faces, external maintenance equipment, tents, metal detectors etc

Spaces for trolleys, small tractor.

Unheated

Access to exterior by secure roller shutters

Level access to exterior.

Lighting

Power outlets

Water Supply

b) Workshop Area

Located within but separate from the main storage area

Secure access from within the storage area

Heated

Workbench to accommodate arrow cutting, fletching, bow maintenance.

Storage for beginners bows and arrows, spare parts, tools and items of high value technical equipment

Window, overlooking outdoor range with security shutter

Lighting

Power outlets

c) Clubhouse area

To include:

Main entrance to the building? Possibly corridor. Doors and shutters

Multifunction club/meeting/teaching room, possibly with divider

Equipped with telephone line/ internet access

Hatch to enable booking-in for shoots

Toilets accessible from inside and outside the building

Kitchen/food preparation and storage area with secure serving hatch to the exterior, and counter /hatch to the clubroom.

Windows (with shutters) to overlook outdoor range

The exact layout and equipping of these areas are to be decided with the advice of the designer.

d) External areas

Lighting around building perimeter

All paths in the area around the building to be adequately lit.

Level approaches to all building access points

CCTV and security alarms.

Secure access to Building.

All building access points to be usable by wheelchair users.

C. The Outdoor Areas

These comprise the outdoor range and other spaces

The Outdoor Range

Location/Environment:

Located to the north of the Indoor Range Building

Orientation, S→N ± 20°

No flood risk

Not easily visible from the road

Not overlooked by buildings

Similar rural location to Jubilee Park

A 25-boss 90m (100yd) tournament range

Playing surface:

Short, well kept, grass that is flat, not sloped. Stone free if new ground

Good drainage all year round

Circulation or “Buffer” space would be needed and should be sufficient to accommodate any likely future increase in ArcheryGB range safety requirements.

All weather shooting line suitable for wheelchair archers

All weather paths to facilities

Covered spectator area alongside the indoor range building?

Other Spaces

Adequate (60-70 cars) hard-surfaced car parking close to the range. (Some of this could be within the archery facility boundary.)

11.1.2018