

Kent Sports Development Unit
Facility Development Guidance Note

Beach Volleyball

2006

Endorsed by England Volleyball



KCC Sports Development Unit



BUILD A BEACH VOLLEYBALL COURT

Beach Volleyball is an Olympic sport, so why not do something slightly different and build a Beach Volleyball court for as little as £10,000? This is a project that could be substantially cheaper if labour, and or materials, can be provided free, or at less of a cost. This could be a fantastic way to a great new facility at a fraction of the cost of most other sports facilities.

Kent County Council has funded a Volleyball Development Officer for the County to assist in developing Beach Volleyball. The role has been filled by Tom Middleton, who has been successfully developing Volleyball in Kent for over 8 years. To contact Tom to discuss the concept of developing a Beach Volleyball court e-mail tom.middleton@kent.gov.uk or call 07710 772533.

Beach Volleyball is an Olympic sport but is probably the most under represented sport in terms of facilities in the County. With so many beaches in Kent it would appear an ideal location. Indeed Margate has already played host to International matches but Beach Volleyball does not have to be located on a sandy beach, it could be located at a school, local club or a local park. In fact, Beach Volleyball courts are already in existence inland in the County, in Great Chart near Ashford and at the University of Kent Canterbury, although none are on school sites yet. Temporary courts have also been established in Dartford as part of an annual fiesta. It could be an excellent new addition to school facilities and a local amenity, as this guidance note examines.

A Beach Volleyball court depending on size, can be used for a variety of activities including Beach Volleyball, Sitting Volleyball, Footvolley, Beach Soccer, Beach Tag Rugby, Kabadi, Beach Handball, as a long jump/triple jump pit, for multiple and fitness training and for early years learning as a play area. Such a facility has the potential to generate new activities, clubs, community use and revenue. Therefore, it becomes a very versatile area at less of a cost than most hard tarmac areas.

TECHNICAL DETAILS



Ideally it should be situated with the court running North-South. It is best suited away from overhanging trees to avoid tree debris falling onto the court. To protect the court from misuse, it is also best placed in a secure compound or private site, such as a school.

Size

An International sized Beach Volleyball court is 8m x 16m, not including run off space. Although this is the standard size for the international game, smaller adapted versions are possible that would still permit the game to be played.

Sand boundary - minimum size = 14m x 22m. This provides a 3m sand perimeter run off around the court. For professional competition the overall court size should be increased to accommodate 4m run off on the sides and 5m at each end. For Olympic standard a minimum run off of 5/6m on all sides is required.

SAND PIT SIZES

Options:

1. One court (Basic) - 14m x 22m
2. One court international/Olympic standard – 16-20m x 26-28m
3. Two court (Basic) - 28m x 22m
4. Two court international standard/Olympic standard – 32-40m x 26-28m
5. Three court (Basic) - 42m x 22m
6. Three court international standard/Olympic standard – 48-60m x 26-28m
7. Four court (Basic) - 56m x 22m
8. Four court (Basic) - 28m x 44m
9. Four court international standard/Olympic standard – 64-80m x 26-28m
10. Four court international standard/Olympic standard – 32-40m x 52-56m

Addition space, above that listed, may be required for coaches, officials and spectators though this can be accommodated outside of the sandpit itself.

BASE/DRAINAGE/PIT/SAND

A pit should be dug and levelled to a depth of between 70 and 100cm. The earth removed can be used to form banking around the court which benefits spectators and helps to retain balls and act as a windbreak.

If contractors are on site, see if this can be done via negotiation on costs, or hire a mini JCB.

The base should be inclined toward a drainage ditch. In the drainage ditch a perforated drainage pipe, width 150mm, should be laid between semi-permeable layer of stone.

Next, lay clean drainage 50-100mm stone or gravel to a depth of 20cm over the perforated drainage pipe. The amount will be approximately 2,600 cubic feet of gravel (10.25/ton [110 ton]).

In between the stone and sand, a porous layer such as plastic landscaping mesh is recommended to keep sand and stone separate.

Sand – **ocean fine** is ideal. Be careful not to buy the wrong sand, too fine and it will stick together and dry hard as it compacts, and builders sand is too coarse. The depth of sand should be a minimum depth of 40cm at all points.



Are you able to negotiate the supply of sand and stone from a local company or quarry?

For details contact the Quarry Products Association on 0207 730 8194.



The playing surface should comprise of level, flattened sand, as uniform as possible. You should attempt to protect players and spectators from anything that could be a potential hazard by appropriate measures including padding of edges. The suggested boundary between sand and surrounding surface should be soft, like rubber although the greater the run off, the less of an issue this factor becomes.

EQUIPMENT

Posts

- The volleyball posts can be fixed or moveable and both can be purchased through regular sports equipment suppliers.
 - The fixed posts can be located outside of the sandpit.
 - To save on costs further, fixed posts could be made out of wood, pipe or metal and should be 2.5m high of the ground. It is advisable that these are sunk to a depth of at least 1m.
 - Minimum pole thickness is 4 inches although 8 inches is recommended for robustness. The posts should be dug into the ground and laid onto a concrete bed, then fixed with concrete. Square poles are not recommended due to potential injury from the edges.
 - It is recommended that the poles be padded for safety reasons.
 - The posts should be adapted to enable a net to be fixed at the correct heights, which are 2.43m for men and 2.24m for women. Again, additional adaptations and fixings at lower heights to support mini volleyball (2m) and sitting volleyball (1.15 m for men and 1.05 m for women) should also be considered.
 - For national and international level, posts must conform to (Federation Internationale De Volleyball) FIVB standards.
- A portable post and net set can be bought for £180.
 - One net is circa £35. (8.5m long and approximately 1m wide.
 - Boundary Line Marker one set, 25mm web is circa £30. (All the lines are between 5 to 8 cm wide and of a colour that clearly contrasts with that of the sand. There is no central line.)
 - Balls circa £16 each.
 - Other equipment, and equipment for other sports, is optional as required.



OPTIONAL EXTRAS

Covers

- All of the sand should ideally be covered when not in use (although it is not essential). This will prevent the migration of sand and deter animals. A simple

tarpaulin will suffice, pegged and/or waited down. For ease of use a swimming pool cover on a roller is appropriate.

Floodlighting

- Firstly, determine whether floodlighting is required based on likely usage outside of daylight hours.
- Develop floodlighting scheme for a realistic level of play perceived. A Variable lighting scheme to reduce lux dependent on level of play is economical.
- Lux levels: Training 120lux. School use and local competition up to 400lux. International/Olympic 1000lux to 1500lux.
- Ensure that on facilities with more than one court the floodlight scheme permits the ability to light individual courts.
- Minimum of 8 metre columns.

Permanent Structure Over Courts

- A permanent structure over the courts will permit greater level of play during all weather and can be used to stop tree debris blowing onto the sand. However, the costs of providing would need to be weighed against the perceived benefits. Conversion of existing indoor facilities into a beach area could be a consideration.
- Clearance above court, Recreation – 7m plus
- Clearance above court, International/Olympic minimum of 10.5m - 12.5m

Fencing

- Perimeter fencing is recommended where a facility is not already contained within private grounds, at extra cost.
- Consideration of fencing just the sandpit or a greater area, which will also accommodate spectators and official etc, should be given.
- Fencing acts as a natural barrier to unwanted users. It segregates the facility from other areas of the site. Prevents balls from migrating outside of the sand pit. Can be used to prevent animals from entering the sandpit. The fencing can be used to support advertising banners and windbreak netting where required.
- Basic chainlink fencing is acceptable where vandalism is not anticipated. Weldmesh fencing is more robust and generally considered more appropriate.
- Fencing should ideally be 3m on all sides. Though variations to this should be considered. 5m behind beach soccer goals will better retain balls. 1.2m fencing on sides will facilitate better spectating but will be too low to prevent access to the sand pit.

Division Netting

- On facilities of two or more courts, division netting will be required between courts for National and International competition. This will require a winch system where the netting can be removed when the whole area is required for sports such as Beach Soccer.

Windbreak Netting

- Windbreak netting can be attached to perimeter fencing. This improves the impact of the wind on sports being played (although wind is an accepted part of this outdoor sport). It will also reduce the migration of sand due to the wind. They can be used to provide greater privacy and for use in advertising.

Earth Banks

- Earth banks around the facility can act as a windbreak, assist in retaining balls and provide a natural terracing for spectators.
- The earth banks can be created from the excavated soil.

Hard Standing Areas and Access

- Access to the sandpit should comply with the Disability Discrimination Act.
- Vehicular access will be required for emergency vehicles and for service vehicles.
- Hard standing areas should be considered, although not required, to facilitate officials and spectating areas.

Size

- Where the budget permits, it is generally recommended that, a facility which can accommodate two courts is better, as it can be used for full size beach soccer and a far greater number of adapted beach sports. The larger the area the greater the sports and participants that can be accommodated.

OLYMPIC TRAINING CAMP REQUIREMENTS

An Olympic training facility should provide at least two courts; combined space approximately 28m x 34m plus 28m x 14m for each additional court.

The facilities must provide an appropriate world class training environment; offer appropriate support provision and where possible allow exclusive usage arrangements. Note that some of these requirements differ from those for competitions, so facilities suitable for major events are not always suitable for training.

Health and fitness suite facilities, changing, IT facilities, catering, storage, office accommodation, meeting / lecture room for coaching and support staff are likely to be required at a training venue as is accommodation/or access to accommodation in the locality.

A tented area for shelter must be in close proximity, and provide all normal ancillary facilities as well as weather protection.

SAND SPORTS

Beach Volleyball Courts can support a number of adapted versions of other sports. The following information provides basic detail on some of these. You are advised to take specific advice from the relevant Governing Body of a particular sport, should you decide to incorporate it.

Beach Soccer

- Pitch size: 37m x 28m, 2m run off sand surround on all sides.
- (Pitch size can be reduced for recreational use to a minimum of 32 x 24m or a sand pit of 34 x 26m)
- Space for officials, substitutes and spectators should be provided off the court and run off area (this can be outside of the sandpit).

Equipment

- Tape lines (10cm wide, blue), 10 flag posts (6 red, 4 yellow), Goals – Width 5.5m x 2.2m high (posts up to 20cm thick), balls.

Beach Handball

- Court size: 27x12m, 3m run off sand surround on all sides.
- Total sand area required: 33m x 18m
- Space for officials, substitutes and spectators should be provided off the court and run off area (this can be outside of the sandpit).

Equipment

- Tape lines, Goals width 3m x 2m high posts 8cm thick, balls.

Beach Kabbadi

- Court size: 12.5m x10m, 2m run off sand surround on all sides.
- Total sand area required: 16.5m x 14m
- Space for officials, substitutes and spectators should be provided off the court and run off area (this can be outside of the sandpit).

Equipment

- Tape lines.

Beach Rugby

- Court size: 50x35m, 3m run off sand surround on all sides.
- Total sand area required: 56m x 41m
- Total area can be smaller for adapted recreational use, minimum 30m x 20m.
- Space for officials, substitutes and spectators should be provided off the court and run off area (this can be outside of the sandpit).

Equipment

- Tape lines 10cm, Tags, balls.

Footvolley

- Court size: 18m x 9m, 3m run off sand surround on all sides (5m on sides and 8m at ends for international standard).
- Total sand area required: 56m x 41m.
- If covered, clearance required is 8m or 12m for International standard play.
- Total area can be smaller for adapted recreational use, minimum 30m x 20m.
- Space for officials, substitutes and spectators should be provided off the court and run off area (this can be outside of the sandpit).

Equipment

- Tape lines 5 to 8 cm in width, if cords are used instead these must be between 20 to 30 millimetres in diameter, net 9.5m length, poles 2.55m for net 2.2m high, balls.

Athletics

- Long Jump/Triple Jump - sand pit can be used as a competition and training pit for long jump and triple jump. Provision for appropriate run up is required (53m min long and 1.22m wide) with take off boards.
- Minimum size requirements 7m x 2.75m for a single pit, training pits can accommodate any number of run ups but a safety margin of 1m between each landing area is recommended. Total pit area for one jump zone is 7m x 4.75m.

Beach Basketball

- Played on a Circular Court with a basketball goal in the centre, with no backboard. There's no out of bounds but a three point throw line marks the circle around the goal at a radius of 6.25 metres.

Equipment

- Adapted Beach Basketball goal, tape or rope to mark three point throw line, basketballs.

Beach Korfball

- The dimensions of the field are 20 x 20 m.

Equipment

- Two benches, tapes for lines, a cylindrical bottomless basket is fitted to a post. Its top edge must be 3.50 m above the ground at all points. It is 25 cm high and has an inner diameter of 39 - 41 cm. The rim (top edge) of the basket has a width of 2 - 3 cm, ball.

Useful Web Sites

Kent Sports Development Unit:	www.kentsport.org
England Volleyball:	www.volleyballengland.org
Beach Volleyball Inc:	www.beachvolleyballinc.com
International Volleyball Federation:	www.fivb.org
Yellow Wave Beach Sports:	www.yellowwave.co.uk
England Beach Soccer:	www.EnglandBeachSoccer.com

The Photographs in this document were supplied by England Volleyball. Front cover features England Volleyball "come and try" event. The coaches in the photos are Amanda Glover (with the shorter hair) and Audrey Cooper, both of whom teamed up to represent GB in beach volleyball at the Atlanta 1996 Olympics (placed 9th). The other two action photos feature UK beach tour events showing players at elite national level. Construction photos courtesy of Dartford Borough Council showing the construction of their Beach Volleyball court for the Dartford Summer Beach & Grass Volleyball Fiesta 2006.

E. Fane - Kent Sports Development Unit, February 2007.

Special thanks to:

England Volleyball - Tom Middleton, Denise Austin, Julie Garrard and Mark Kontopoulos.
Dartford Borough Council – Stephen Jefferson.

General Disclaimer of liability for Content in Publications

Kent County Council's Sports Development Unit makes no representations for warranties of any kind in respect to the contents and disclaims all such representation and warranties. In addition the Unit makes no representation or warranties about the accuracy, completeness or suitability for any purpose of the information and related graphics published in this document. The Unit assumes no responsibility for any damages. The information contained herein may have technical inaccuracies or errors. All liability of Kent County Council's Sports Development Unit howsoever arising for any such inaccuracies or errors is expressly excluded to the fullest extent permitted by law.

Copyright

Kent County Council Sports Development Unit reserves the right to control all internally produced material and documents and how these can be used. This includes material and documentation produced externally, on behalf of, or for, the Kent County Council Sports Development Unit. The rights cover: copying; adapting; distributing; communicating the information; and renting or lending copies. Any documents or material produced by the Kent County Council Sports Development Unit is Copyright protected and is the intellectual property of Kent County Council Sports Development Unit and cannot be used, copied, adapted, distributed, or communicated to any other party without written permission of Kent County Council Sports Development Unit.

Without Prejudice

Kent Sports Development Unit (KSDU) is not a bona fide body in its own right, but is part of Kent County Council, Communities Directorate. I should state, without prejudice, that the views expressed within this document are not necessarily the views of KCC as a strategic planning authority. However, the KSDU does provide comment, input and advice into facility Development throughout the County and the KSDU has an overall strategic perspective on sports facility requirements.

February 2007
Kent County Council, Sports Development Unit.