

# How to Layout a Soccer Field . . .

(see the helpful drawings below...)

Mike,

I was our community soccer field coordinator for around five years several years ago. My work hours kept me from coaching but not from the 'behind-the-scenes' support role of making sure our fields were playable. We didn't have a soccer complex at that time, so when our turn to host tournaments rolled around, I was responsible for setting up and lining as many temporary fields as we needed. I like straight lines and squared corners so it took me a little longer than those that just wanted to get it done.

Getting right to the point, I discovered an excellent method of quickly establishing a good squared field of play, and I would like to share this with everyone interested in the game of soccer. I have not seen this information anywhere.

One afternoon I realized that soccer fields are mathematical in design in that their width and length are determined by the sums of the measurements of the sides of an isosceles triangle. An isosceles triangle consists of one 90 degree angle and two 45 degree angles. The formula for an isosceles triangle is  $c^2 = a^2 + a^2$ .

The dimensions of a soccer field are: width = (a + a), and length = (a + c + a). Please refer to the drawing on the next page.

I created a (somewhat elaborate) set-up jig using three sections of wire (with clips at each end) and three brass rings for a field size of 58 yds x 99 yds. Two sections of wire were 29 yards (each), and the other wire was 41 yards long. I marked the center of the longest wire to establish the center of the field. I was able to establish all four corners and the centerline of an unmarked field by myself in five minutes.

Keeping the isosceles triangle in mind, a more simple set-up jig could easily be made using one piece of non-stretchable rope or wire (with loops or rings at each end) cut for the length of the field with each end measured for half of the field width and, of course, enough stakes to establish the angles.

A person could mark the setup line for other uses, like establishing the rest of the field points. Once the fourth corner is set, two people working together could easily determine all of the points for a new field and have it ready for striping in less than 10 minutes.

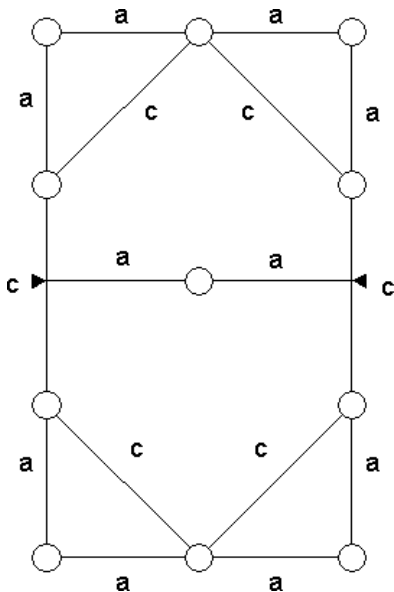
I recommend making a one-line jig for the length of a field. In my opinion, the field length is usually the most limiting factor. Once the corners of a field are established, it is relatively easy to change it's width. Because the length doesn't change, the line is still available to use for establishing all of the reference lines parallel to the side.

The beauty of a using a one-piece jig is its ease of storage and flexibility. Several field set-up lines (U-8, U-10, etc) can be neatly stored in a box or on a shelf.

I would like to pass this information to anyone having anything to do with establishing fields. Have I contacted the right person?

Sincerely,

Ray Allen



a	c	width	length
17	24.0	34	58.0
18	25.5	36	61.5
20.5	29.0	41	70.0
23	32.5	46	78.5
24	33.9	48	81.9
25	35.4	50	85.4
26.5	37.5	53	90.5
29	41.0	58	99.0
31.5	44.5	63	107.5
32.5	46.0	65	111.0
35	49.5	70	119.5

Field setup using one line (length of field). (The inside arrows are stakes in relation to the line).

