



**SPORTS MARKING
BOOKLET**

Kombi

The Kombi, with wheeled knib spray marker, has become an industry favourite where the groundsman demands quality of line, ease of use and superb value for money.

The Kombi is used on all stages, from the world's premier sports grounds to local parks. With adjustable line width, the line forming knib gives crisp, well defined lines with every mark.

With the Fleet range of line marking paints there is no need for external mixing; the paint and water disperse immediately in the main tank.

At the end of the marking session, and at the flick of a switch, the Kombi flushes clean water from the rear tank through the pump and nozzle assembly, therefore eliminating blockages and unnecessary downtime.



NON-PUNCTURE TYRES

Light weight solid foam tyres allow the feel and response of a pneumatic tyre without the risk of puncture.



WHEELED KNIB

Adjustable line width, adjustable nozzle height, multi surface marking, built in rule.



ATHLETIC BOOM

Athletic track lane marking becomes easy with the athletic boom. Just clip on the boom and mark multiple lanes at once. Lane width is totally adjustable.



SPRAY BOOM

With an adjustable five height position, easy push-on and pull-off boom along with a 1.5metre spray width, the spray boom offers the user an advanced spray system at an affordable price.



HAND LANCE

The KOMBI hand lance is the ideal optional extra for spot spraying and filling in areas that are difficult to reach.



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The content of this booklet should be used as a guide only. As much care as possible has been undertaken to ensure accuracy, however changes to dimensions and standards could occur at any stage due to ongoing improvements to a particular game or sport.

For confirmation of current local, state, national and international dimensions you should consult the appropriate sports governing body. Fleet does not accept any responsibility for issues arising from the factual content of this booklet and reserve the right to make changes without notice.

400 Metre Track

Track and Field consists of a group of athletic events held between individuals or teams. Track and field sports consist mainly of running events.

Track Length: Based on parallels of 84.39 (92.29yds) and a radius of 36.5m (39.92yds), making the two turns. The measurement is taken 30cm (11.81 in) from the inner edge for Lane 1 if there is a raised border of 20cm (7.87in) if there is no border. All other lane distances are measured 20cm (7.87in) from white line.

Lane Widths: 1.22m (1.33yds) wide and no more than 1.25m (1.37yds). When the inner edge is a chalk line: Lane 1 measure 1.12m (1.22yds). The measurement being taken from the outside edge of the marking line to the outside edge of the marking line to the outside edge of the next line, going outwards from the track side of the inner kerb. All semicircular curves will be equal.

Staggers: Lanes 2-8 measurements are taken along a 20cm (7.87in) line from inside edge of each lane. On the diagram, the staggers for 100m (109.36yds) and 300m (328.08yds) apply only when the straights are 84.39m (92.29yds) and must be adjusted for tracks of other proportions.

Take Over Zones: 10 m (10.94yds) before and after the take over scratch line in each lane.

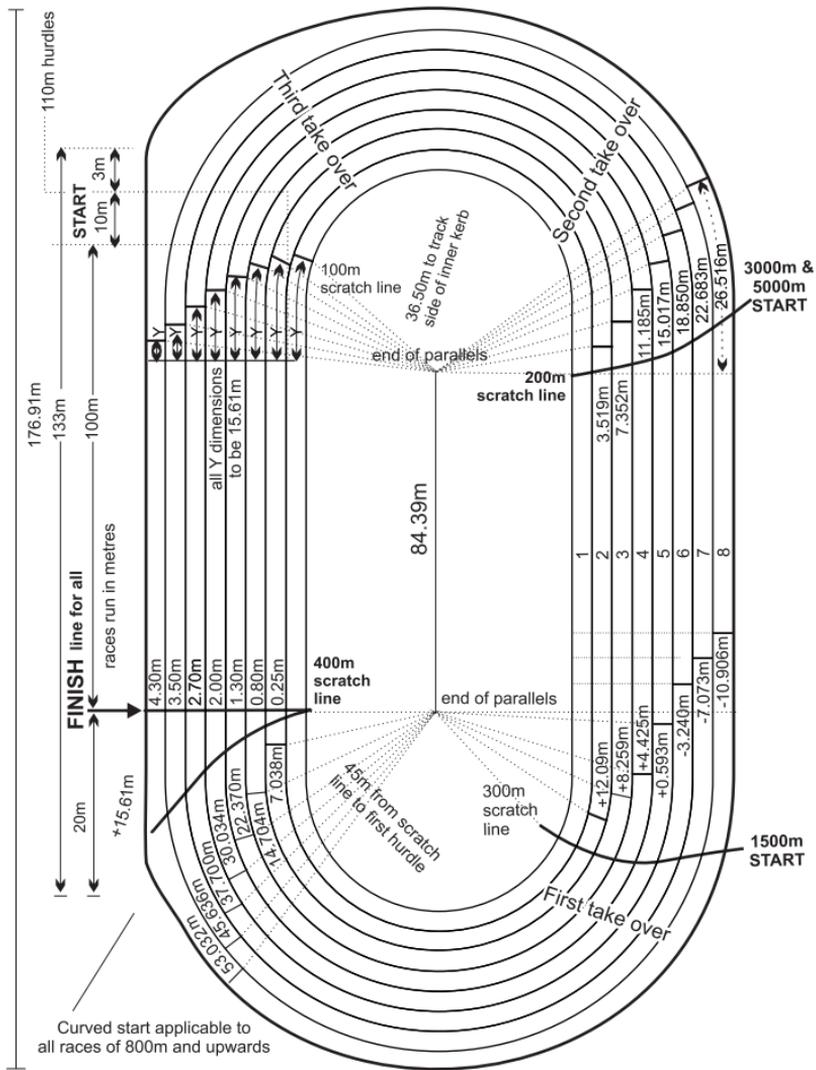
Line Width: 5cm (1.97in) wide

Colour: White

In international Competition the 800 metre race is run in lanes as far as their first bend, making the use of the staggered Starts necessary.



MANAGERS GUIDE
Pedestrian: 1hr40m
Fastliner: 25min



400 Metre Track DIMENSIONS

300 Metre Track

Track Length: Based on parallels of 40.04 (43.79yds) and a radius of 35m (38.28yds), making the two turns. The measurement is taken 30cm (11.81 in) from the inner edge for Lane 1 if there is a raised border of 20cm (7.87in) if there is no border. All other lane distances are measured 20cm (7.87in) from white line.

Lane Widths: 1.22m (1.33yds) wide and no more than 1.25m (1.37yds). When the inner edge is a chalk line: Lane 1 measure 1.12m (1.22yds). The measurement being taken from the outside edge of the marking line to the outside edge of the marking line to the outside edge of the next line, going outwards from the track side of the inner kerb. All semicircular curves will be equal.

The diagram shows starts for 200, 300 and 400 meters and take over distance points for 4 x 100m relay.

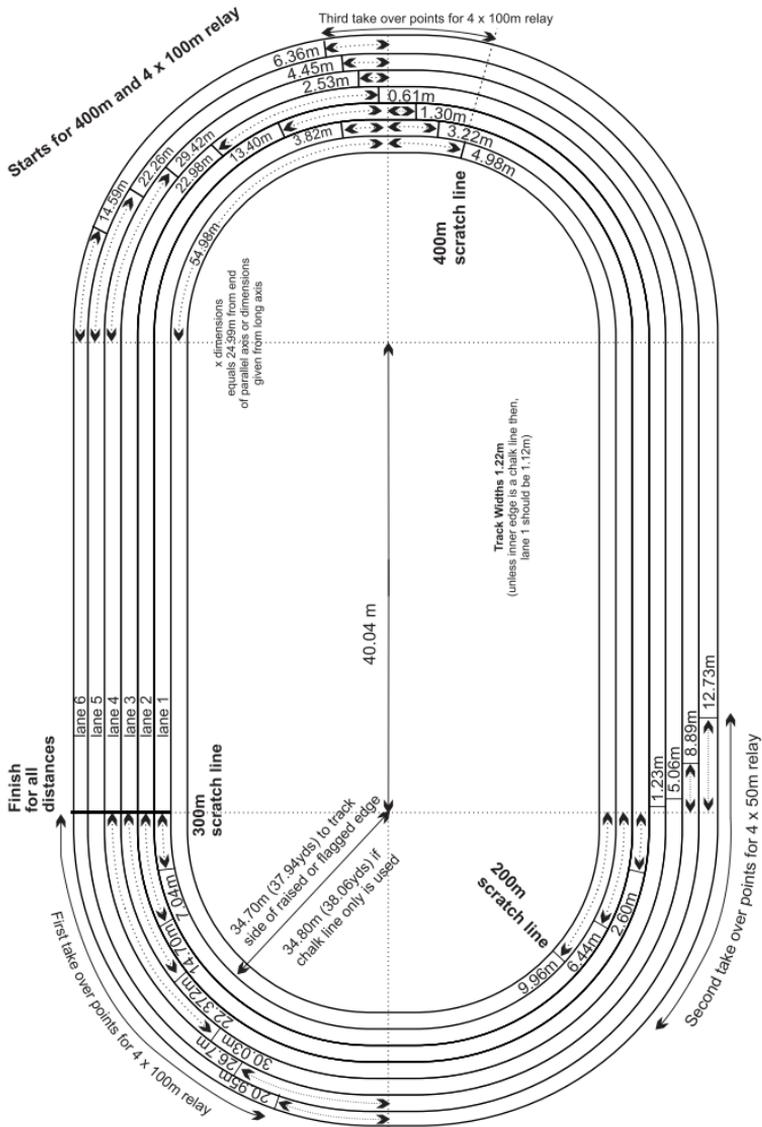
Staggers: Lanes 2-8 measurements are taken along a 20cm (7.87in) line from inside edge of each lane.

Line Width: 5cm (1.97in) wide

Colour: White



MANAGERS GUIDE	
Pedestrian:	1 hour
Fastliner:	20min



300 Metre Track DIMENSIONS

200 Metre Track

Track Length: Based on parallels of 25.01m (27.35yds) and a radius of 23.87m (26.1yds), making the two turns. The measurement is taken 30cm (11.81 in) from the inner edge for Lane 1 if there is a raised border of 20cm (7.87in) if there is no border. All other lane distances are measured 20cm (7.87in) from white line.

Lane Widths: 1.22m (1.33yds) wide and no more than 1.25m (1.37yds). When the inner edge is a chalk line: Lane 1 measure 1.12m (1.22yds). The measurement being taken from the outside edge of the marking line to the outside edge of the marking line to the outside edge of the next line, going outwards from the track side of the inner kerb. All semicircular curves will be equal.

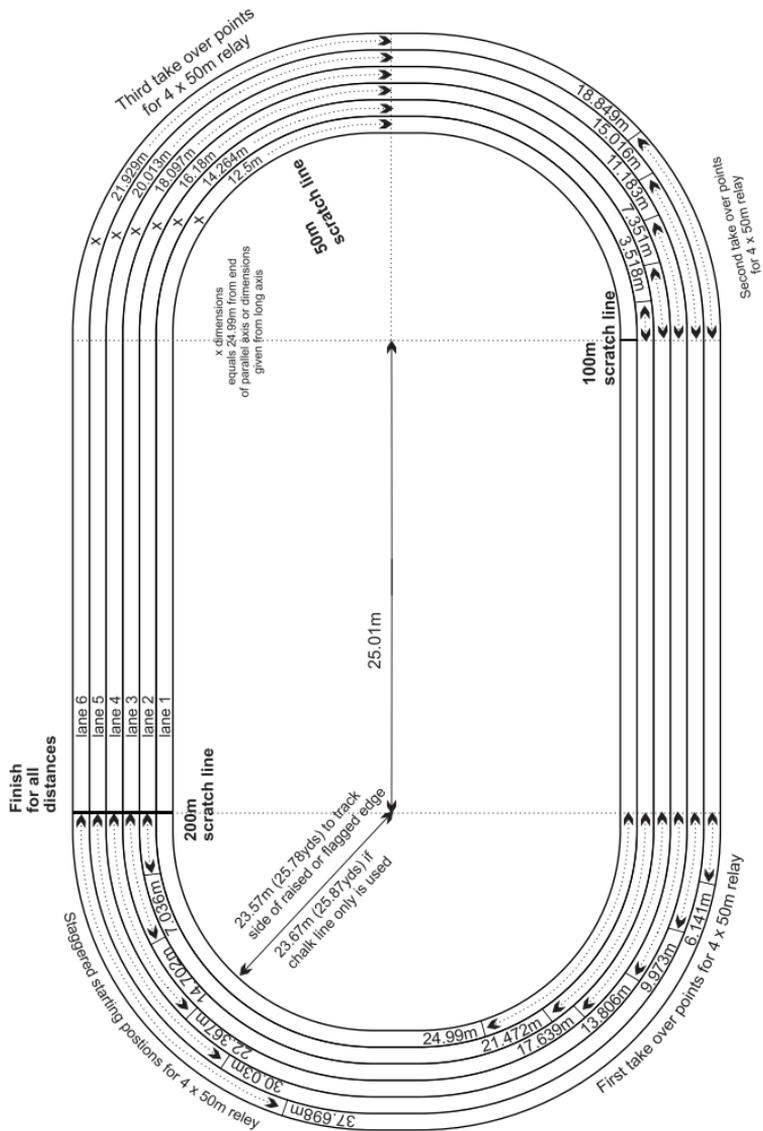
Staggers: Lanes 2-8 measurements are taken along a 20cm (7.87in) line from inside edge of each lane.

Line Width: 5cm (1.97in) wide

Colour: White



MANAGERS GUIDE	
Pedestrian:	40min
Fastliner:	15min



200 Metre Track DIMENSIONS

American Football

American Football is a distinct type of football developed by the United States in the 19th Century. The object of the game is for a team to carry, kick or pass the ball into the opponent's end zone to score.

Pitch Measurement: 360ft (110m) long by 160ft (48.8m) wide.

Goal Lines: 30ft (9.1m) from the end lines on both sides of the field, leaving the 300ft (91.4m) dimension at the centre. The goal lines mark off the entrances to the end zones and may be of contrasting colours.

Yardlines: Marked at 5yrd (4.6m) intervals, parallel to the end zones.

Sideline Hashmarks: Marked with 2ft (61cm) lines, 6" (15cm) inside the sidelines. 1yrd (91cm) apart.

Infield Hashmarks: Marked 70ft 9" (20.96m) from the sidelines, the lines are marked 2ft (60cm) long. These lines align with the upright edges of the goalposts, are marked 1yrd (0.9144m) apart and are mandatory. A 2ft (60cm) hash mark is marked over every yard line parallel to the sidelines.

Conversion Spot (Line): Marked at the 3yd line, directly in the middle of the field 2ft (61cm) long with equal measurements on either side.

Field Yard Line Numbers: Marked 9yrds (8.23m) from the sidelines and 1ft (0.3m) from yard lines and measure 6ft (1.83m) high by 4ft (1.22m) wide.

Directional Arrows: Are permitted next to the field numbers (except 50) and are to point in the direction of the opponents goal line. The base of the arrow is 4" (10cm) from the top of the number and the head of the arrow is a triangle with a 18"(46cm) base and two sides 36" (91cm) long.

Coaching Area: 6ft (1.83m) from the sideline between the 25yd or 30yrd lines extending 24ft (7.32m). A solid white area or diagonal white lines are recommended or it can be marked distinctly for use of coaches.

Limit Lines: 6ft (1.83m) from the sidelines and endlines. These lines are marked 6ft (1.83m) long and may be yellow.

Goalposts: Consist of two 20ft vertical poles 4" wide. They are placed 18'6" apart (inside to inside) on a horizontal crossbar that is 10' above the ground.

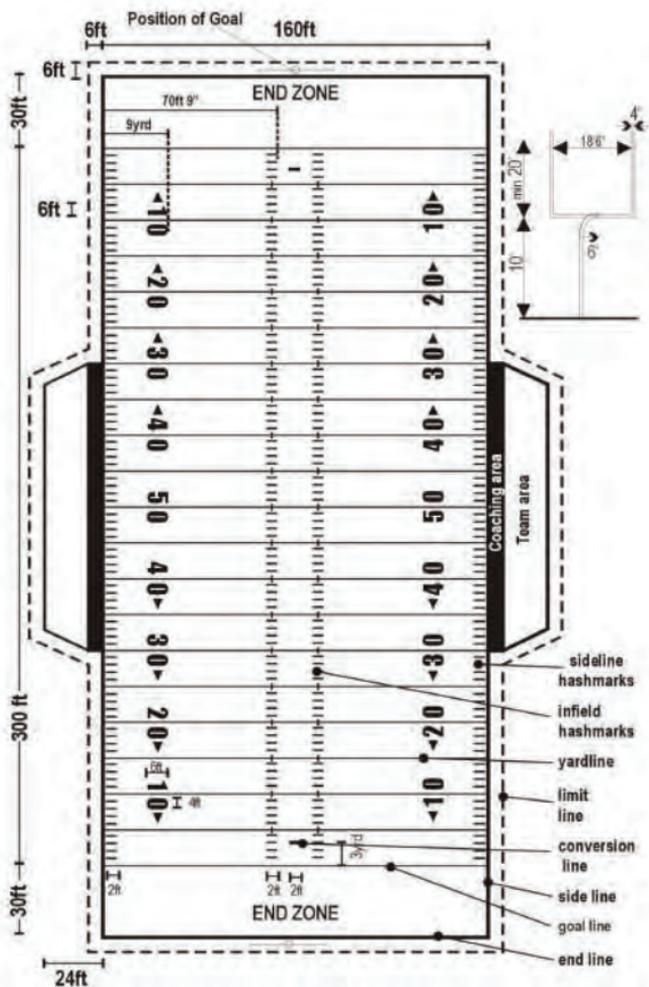
Colour: Most of the lines are white, (exceptions explained above). Logos and other decorative markings are allowed within the end zones, not closer than 4yrds (1.22m) to any line. Contrasting colouring in the end zones may abut any line. Decorative material is permissible within the sidelines and between goal lines, but shall not efface yard side lines, goal lines or side lines.

Line Width: 4in (10cm) in width. Except for the side lines and end lines which may exceed 4in (10cm) in width.

N.B. In NCAA rules the 5yrd lines are not marked the width of the pitch.



MANAGERS GUIDE	
Pedestrian:	2hr
Fastliner:	40min



American Football DIMENSIONS

Aussie Rules Football

Playing Surface Measurement: Between 135 metres and 185 metres in length and between 110 metres and 155 metres in width.

Boundary Line: A white line shall be marked on the ground to identify the Playing Surface. This white line shall be drawn in the shape of an arc from the behind post at one end of the Playing Surface to the behind post at the other end of the Playing Surface. The white lines which are drawn are called the Boundary Line. The following areas shall be marked on the Playing Surface:

Centre Square: Located in the centre of the Playing Surface - 50m long and 50m wide.

Centre Circle: Located in the middle of the Centre Square - an inner circle 3m in diameter and an outer circle 10m in diameter. Both circles are divided into two semicircles by drawing a straight line parallel with each goal line.

Interchange Area: A 15m wide area marked on the Boundary Line on each side of the Playing Surface at its widest point.

Goal Square And Kick-off Line: A further area, to be called the Goal Square, shall be marked by drawing two lines at right angles to the Goal Line for a distance of 9 metres from each goal post and connecting the outer end of each line by a straight line. This line is called the Kick-Off Line.

Goal Line And Behind Line: Marked between the Goal and Behind Posts at each end of the Playing Surface.

Fifty-metre Line: A 50m Arc at each end of the Playing Surface.

Relocation Of Centre Square: Where a Controlling Body is satisfied that the area within the Centre Square and Centre Circle will prevent the bouncing of the football or is otherwise in an unsuitable condition, it may direct the relocation of the Centre Square and Centre Circle.

Goal Posts: Two posts, to be called goal posts, shall be a minimum height of 6 metres and be placed at each end of the Playing Surface at a distance of 6.4 metres apart.

Behind Posts: A further two posts, to be called behind posts, shall be a minimum height of 3 metres and be placed at a distance of 6.4 metres on each side of the goal posts so that a straight line can be drawn on the ground to join each post.

Post Padding: A Controlling Body must ensure that padding is attached around each goal and behind post as follows:

- a minimum of 35 millimetres thick foam padding, covered in canvas or painted;
- a minimum height of 2.5 metres from the bottom of each goal and behind post;
- a suitable width to allow the padding to be fixed around each goal and behind post; and
- the padding must be securely attached around each goal and behind post.



MANAGERS GUIDE	
Pedestrian:	45min
Fastliner:	25min



Aussie Rules Football
DIMENSIONS

Badminton

Badminton is a game played on a court with a net strung across the middle, a racket and a shuttlecock. This game may be played with two as singles or four as doubles.

Court Measurement: 13.4m long (14.65yds) by 6.1m (6.67yds) wide including line widths.

Diagonal Length: 14.72m (16.10yds)

Centre Line: 4.64m (5.03yds) long, from the back boundary line, running parallel to the sidelines directly in the middle of the court and meet perpendicular at the short service lines.

Short Service Line: 1.98m (2.17yds) from the centre of the court, on either side of the court.

Long Service Line: For Singles: Same as Back Boundary Lines.

Sidelines For Singles: 42cm (16.54in) from sidelines on either side of the court.

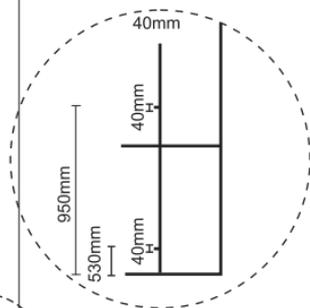
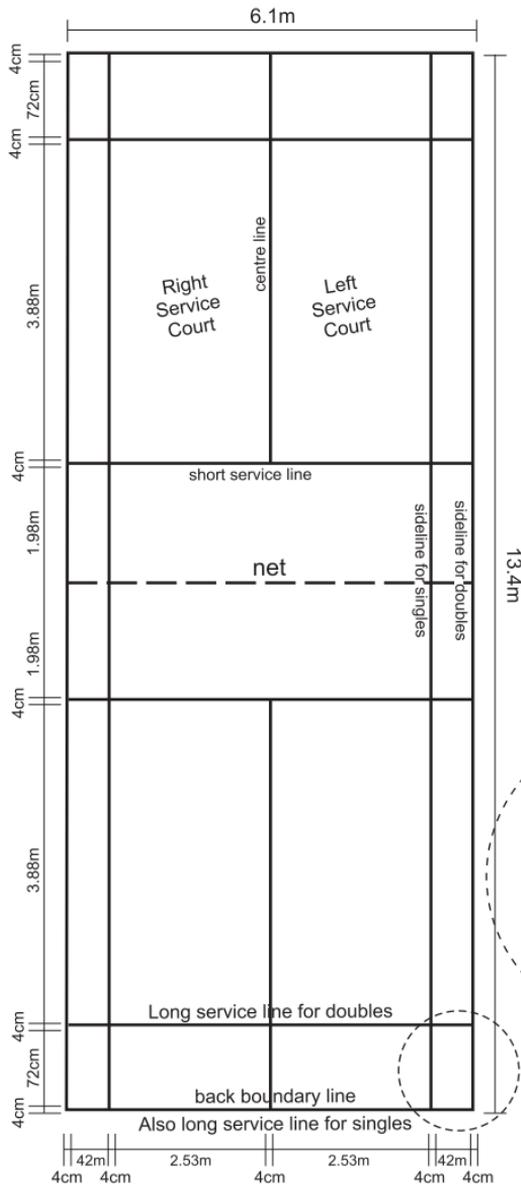
Optional Testing Marks: To show the zone in which a shuttle of correct pace lands when tested, an additional four marks 4cm (1.57in) by 4cm (1.57in) may be made inside each sideline for single of right service court, 53cm (20.87in) and 95cm (38.98in) from back boundary line.

The width of these marks shall be within the measurement given i.e.: the marks will be from 53cm (20.87in) to 57cm (22.44in) and from 95mm 37.4in) to 99cm (38.98in) from outside boundary line.

Line Width: 4cm (1.57in) maximum.

Colour: easily distinguishable, preferably white or yellow.





Optional Testing Marks

Baseball

Baseball is a bat-and-ball game played between two teams of nine players who take turns batting and fielding.

The offense attempts to score more runs than its opponents by hitting a ball thrown by the pitcher with a bat and moving counter-clockwise around a series of four bases: first, second, third and home plate. A run is scored when the runner advances around the bases and returns to home plate.

Players on the batting team take turns hitting against the pitcher of the fielding team, which tries to prevent runs by getting hitters out in any of several ways. A player on the batting team can stop at any of the bases and later advance on a teammate's hit or other means. The teams switch between batting and fielding whenever the fielding team records three outs. One turn at bat for both teams, beginning with the visiting team, constitutes an inning, and nine innings a game. The team with the most runs at the end of the game wins.

Playing Surface Measurement:

Home plate to pitcher's box:	60 feet 6 inches
Plate to second base:	127 feet 3 3/8 inches
Distance from base to base: (home plate included):	90 feet
Size of bases:	15 inches by 15 inches
Pitcher's plate:	24 inches by 6 inches
Batter's box:	4 feet by 6 feet
Home plate:	Five-sided, 17 inches by 8 1/2 inches by 8 1/2 inches by 12 inches by 12 inches, cut to a point at rear
Home plate to backstop:	Not less than 60 feet (recommended)



Basketball

Basketball is one of the most popular sports in the world. It is usually played indoors and consists of two five player teams. The object of the game is to score goals through one of the two baskets.

Court Measurement: 28m long by 15m wide (30.62yds by 16.4 yds) maximum, to 22m long by 13m wide (24.06yds by 14.22yds) minimum.

Halfway Line: Parallel to the end lines and extend 15cm (5.9in) beyond the sidelines intersecting them at their midpoint.

Centre Circle: Radius of 1.8m (1.97yds) from the centre of the court.

Free Throw Lines: 3.6m (3.94yds) long each drawn parallel to the end lines and 5.80m (6.34yds) from the inside edge of the end line.

Restraining Circle: radius 1.8m (1.97yds) and should be continued by a broken line in the restricted area.

Restricted area: marked by joining the ends of each free throw line to the end line, so that they intersect the end line 3m (3.28yds) from the centre of the end line, the width of the restricted area is 6m (6.56yds) at the end line.

Three short lines 10cm (3.94in) in length and 5cm (1.97in) in width and one block 10cm in length and 40cm in width, are marked on each side of the restricted area creating three spaces extending at right angles. The lines and block are marked from the end line: first mark - 1.75m, (191yds) second mark (block) - 0.9m (.98yds), third and fourth mark - 0.9m (0.98yds). The internal measurements reading 0.85m, 0.85m and 0.85m (33.49in, 33.49in and 33.49in).

3 Point Field Goal Areas: A semicircle with a radius of 6.25m (6.84yds) is marked on both ends of the centre of the basket (ie 1.57m (1.72yds) from the centre of the inside edge of the end line). The ends of the semicircle are continued parallel to the side lines and terminate at the end line.

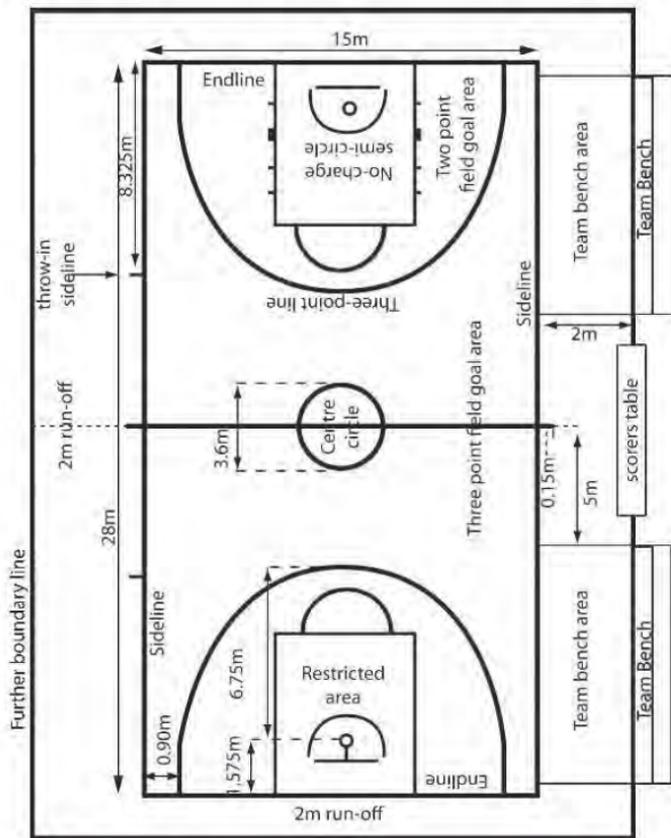
Backboards: 2m (2.19yds) wide by 1m (1.09yds) high, each backboard should be mounted 2.17m (2.95yds) above the court with the basket measuring 45cm (18in) in diameter. the boards should overhang the playing court by 1.2m.

Line Width: 5cm (1.97in) wide.

Colour: White



MANAGERS GUIDE	
Pedestrian:	20min
Fastliner:	7min



Basketball Court DIMENSIONS

Cricket

Cricket is an outdoor game played with a ball, bat and wickets between two teams of eleven players. The object of the game is to make runs from one wicket to another.

Pitch Area: Measures 1.52m (1.64yds) in width on either side of a line joining the centre of the middle stumps of the wickets, 20.12m (22yds) apart.

Synthetic Pitch Area: Measures a minimum of 17.68m (19.3yds) in length and 1.83 (2yds) in width.

Bowling Crease: Marked in line with the stumps at each end and will be 2.64m (2.89yds) in length with the stumps in the centre.

Popping crease: Runs parallel to and is in front of the bowling crease. The back edge of the crease is 1.22m (1.33yds) from the centre of the stumps. It extends to a minimum of 1.83m (2yds) on either side of the line of the wicket and is considered to be unlimited in length.

Return Crease: The inside edge is the crease. It measures 1.22m (1.33yds) minimum behind the wicket and is at right angles with the both ends of the bowling crease. A forward extension is marked to meet the popping crease. It also considered unlimited in length.

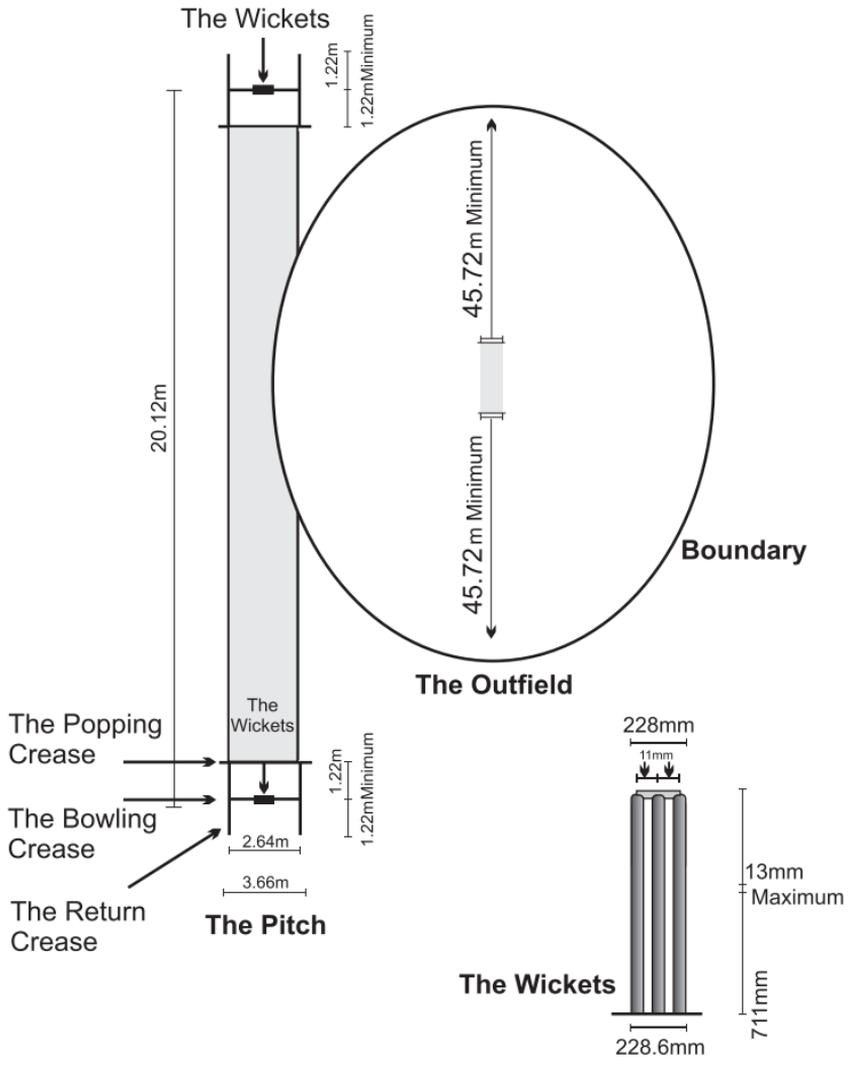
Wicket: The wickets are 20.12m (22yds) apart. Each wicket is 711mm (28in) high, 228.6mm (9in) wide and comprises of three wooden stumps. Two wooden bails are placed on top of the stumps and are not more than 13mm (0.51in) above them and are 111mm (4.33in) in length.

Line width: 25cm (.98in)

Colour: White



MANAGERS GUIDE	
Pedestrian:	40min
Fastliner:	15min



Football

Football is the worlds most popular sport. It is played by two teams of 11 players. The object of the game is to kick the ball into the opponents goal.

Pitch Measurement: Vary From 90m wide by 120m long (100yds by 130yds) maximum to 45m wide by 90m long (50yds by 100yds) minimum. The width and length must included the width of the lines.

International matches: 75m wide by 110m long (82yds by 1021yds) maximum to 64m wide by 100m long (109.36yds by 70yds) minimum.

Halfway Line: Centre of the field of play.

Centre Circle: Radius of 9.15m (10yds) from the centre of the field, with the centre mark in the middle.

Penalty Kick Mark: 11m (12yds) from the goal line, on both sides of the pitch. The mark is 22cm (12yrs) in diameter.

Penalty Area Arcs: From the penalty kick mark at a radius of 9.15m (10yds)

Penalty area: From the centre of the goalpost 16.5m (18yds) long by 40.32mm (44.09yds) wide.

Corner Arcs: Radius of 1m (1yrd)

Goal Area: From the centre of the goal post 5.5m (6yds) long from each goalpost by 18.32m (20yds) wide.

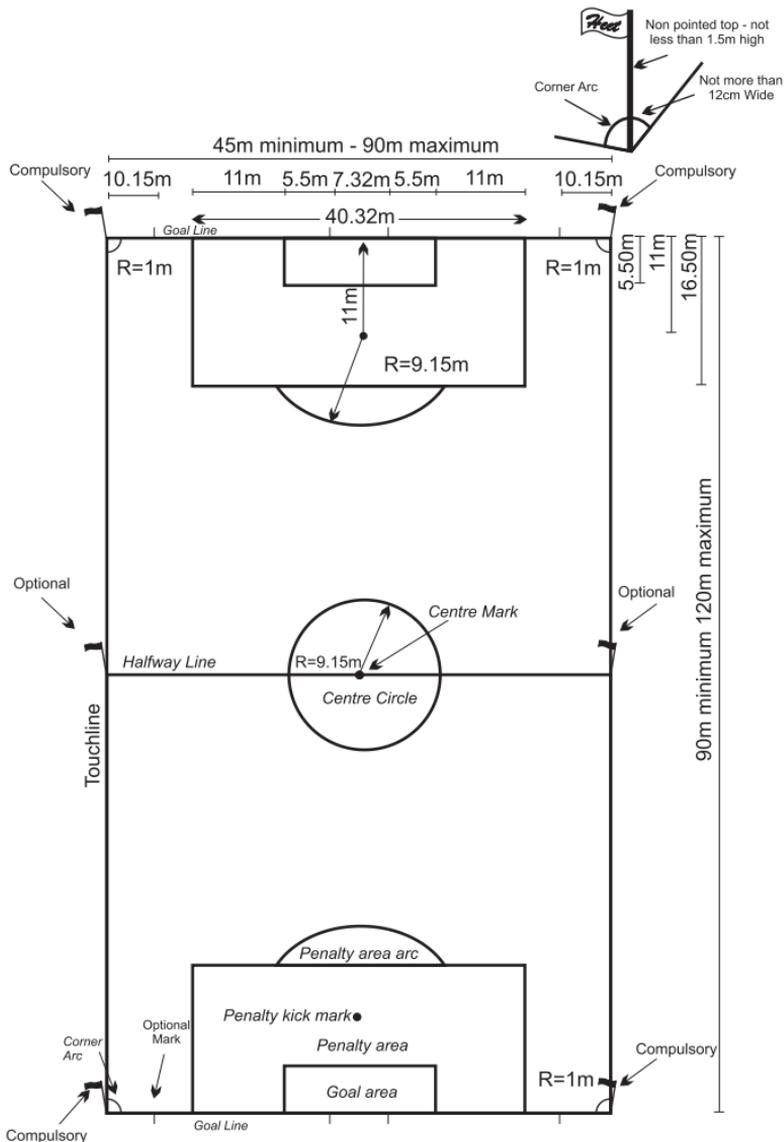
Goal Posts: 2.44m (8ft) high form the ground to the bottom of the crossbar and 7.32m (8yds) apart. The posts and crossbar are not to exceed 12cm (5in) wide and must be white. Nets maybe attached to the goal and to the ground behind the goal.

Line Width: 12cm (5in) maximum, the goal-line is marked the same width as the goal-posts.

Colour: Traditionally white, but not specified.



MANAGERS GUIDE	
Pedestrian:	20min
Fastliner:	7min



Football - FIVE A SIDE

Five-a-Side is an amateur game of football played between 2 teams of five players.

Pitch Measurement: Recommended pitch size of 36m (39.37yds) long by 18m (19.68yds) wide, where possible.

The pitch should remain rectangular with the length exceeding the breadth, the ratio being 2:1.

Penalty spot: Measured 6m (6.56yds) from the midpoint of the goal line.

Centre Spot: Centre of the pitch. Radius of 1m (1yrd)

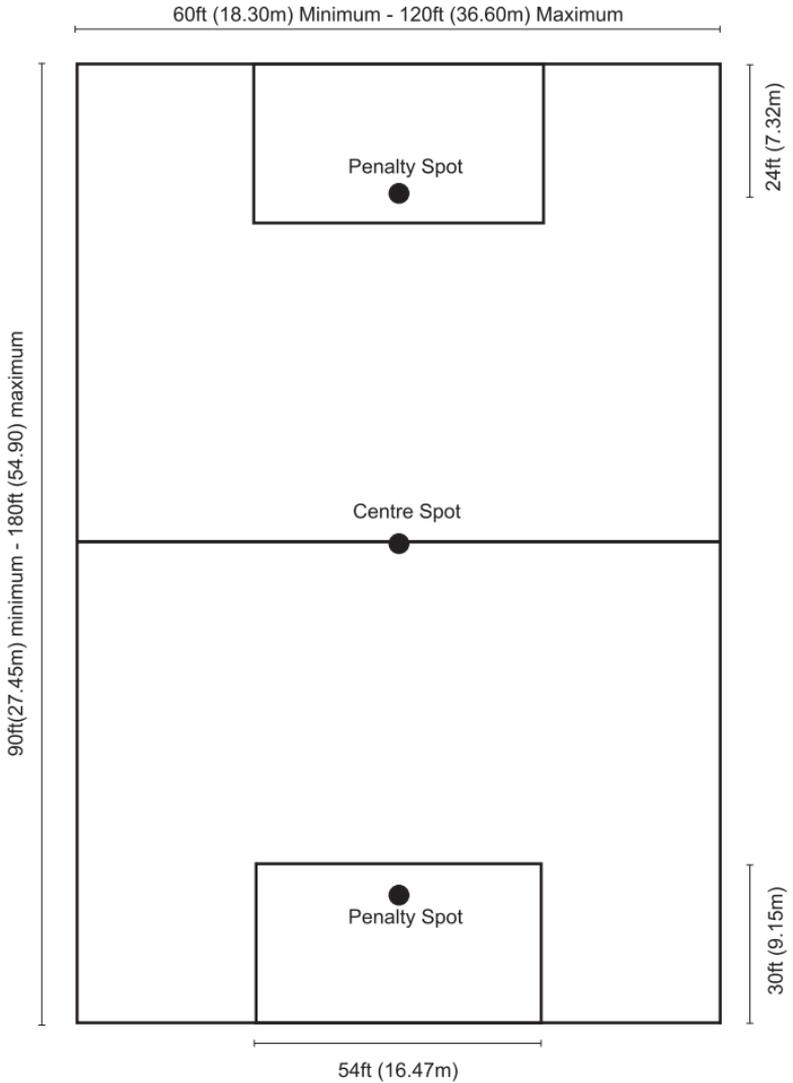
Goalkeeper's Area: Measured from the centre of the goal forming a semicircle at a radius of 7.5m (8.2yds).

Goal Post: Suggested height of 1.22m (1.33yds) and 4.88m (5.34yds) in width and sometimes protrude into the goalkeepers area.

Line Width: 5cm (1.97in)

Colour: Typically red on indoor pitches and white on outdoor pitches.





Hockey

Hockey is a game played with two teams of 11 players, a ball and a wooden hooked stick. The object of the game is to hit the ball into the opponent's goal by use of the stick.

Pitch Measurements: 91.4m (100yds) long by 55m (60yds) wide.

Field Quarters: 23m (25yds) zones running parallel to the back lines.

The centre line being the 50 yard line and the other two lines being 25 yard lines from the outer edges of each back line.

A line is marked 14.63m (16yds) and 5m (5.47yds) from the inner edge of the back line, on the sidelines, on either side of the field. These lines measure 30cm (12in) long.

Penalty Corner Hits: Marked on both sides of the goal at 5m (5.47yds) and 10m (10.95yds). This measurement is taken from the outer edge of the closer goal post to the further edge of the line. All these marks are marked outside the field of play, on the backlines and are 30cm (12in) in length.

Two 150mm (6in) lines are marked outside the field of play on each back line, parallel with the side lines, 1.83m (2yds) from the centre of the back line.

Penalty Spot: Marked in front of the goal post should be 15cm (6in) in diameter and the centre of this spot must be 6.4m (7yds) from the inner edge of the goal line.

Goal Areas: Marked by 2 quarter circles from each of the goal posts with radius 14.63m (16yds) and connected by a 3.66m (4yd) line.

A broken line is to be marked 5 metres from the outside edge of the semicircle. Each line is to be 30cm in length, with a gap between each line of 3m. Start with a solid line at the centre of the top of the semicircle.

Goal Posts: Placed at the centre of the goal line and measures 2.13m (2.23yds) high and 3.66m (4yds) wide.

Line Width: 7.5cm (3in) wide

Colour: Traditionally white but may be yellow in synthetic grass pitches.



MANAGERS GUIDE	
Pedestrian:	20min
Fastliner:	7min

Javelin, Discus, Shot Put

JAVELIN

The object of this field event is to throw the javelin (a steel-tipped metal spear) through the air for the furthest distance.

Runway Lines: Two Parallels 4m (4.37yds) apart. And extending for 30m (32.81yds) minimum and 36.5m (39.92yds) maximum.

Scratch Line: 7cm (2.76in) wide, marked on an arc drawn from a radius of 8 m (8.75yds), from the centre point (C on diagram) and touches the front end of the runway lines. From the centre of this strip mark, two straight lines extending through the ends of the scratch lines for 90m (98.4yds). The lines are marked at approximately 29in from centre point.

Sectors: The first sector is marked 30m (32.81yds) from the centre point C and 15m (16.4yds) apart. The second sector point is marked 60m (65.62yds) from the centre point and 45m (49.21yds). The outer ends of the sector lines should be marked with flags.

Line Width: 5cm (1.97in) wide.

DISCUS

The object of this field event is to throw the discus (a steel rimmed or metal platter) through the air for the furthest distance.

Confining Circle: 2.5m (2.7yds) in diameter.

Sectors: The first 34.92° sector is marked 40m (43.74yds) from the centre point (C on diagram) and is exactly 27.36m (29.92yds) long. From the centre point to the second sector is 80m (87.49yds) and it is exactly 54.72m (59.84yds) long, the third sector point is 120m (131.23yds) from the centre point and it is 82.08m (89.76yds) long. The outer ends of the sector lines should be marked with flags.

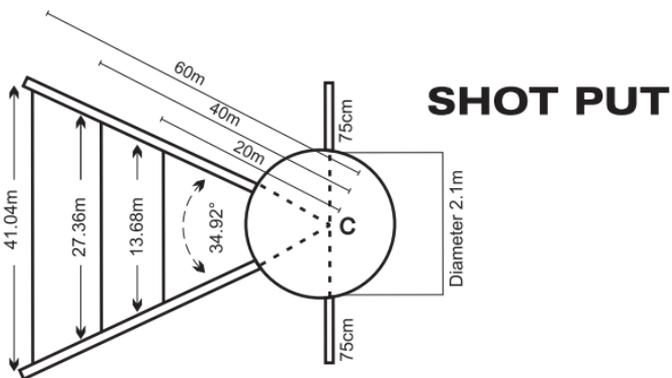
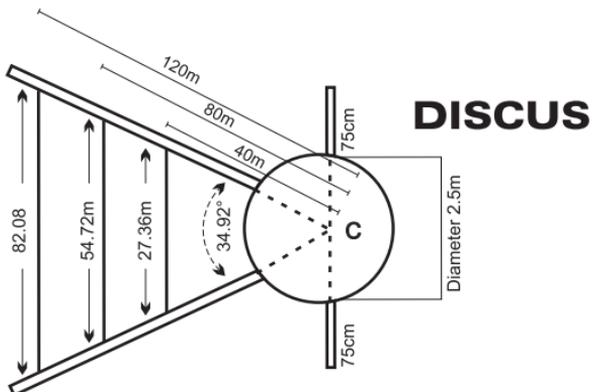
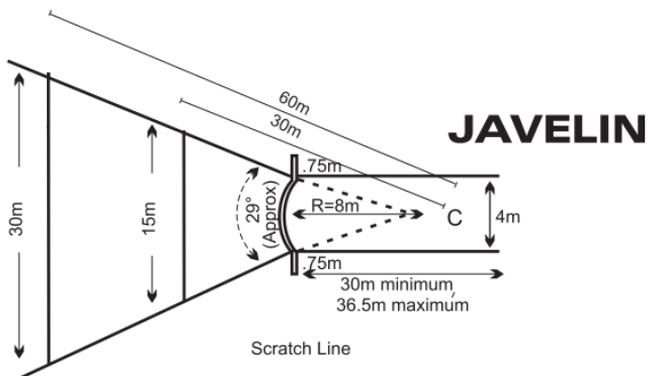
SHOT PUT

The object of this field event is to push the shot put (a solid metal ball) through the air for the furthest distance.

Confining Circles: 2.1m (2.3yds) in diameter.

Sectors: The first 34.92° sector is marked 20m (21.87yds) from the centre point (C on diagram) and is exactly 13.68m (14.96yds) long. From the centre point to the second sector is 40m (43.74yds) and it is exactly 27.36 (29.92yds) long. The third sector is 60m (65.62yds) from the centre point and it is exactly 41.04m (44.88yds) long. The outer ends of the sector lines should be marked with flags.





Mini Football

Mini Football is junior football played by 2 teams. The number of players and the size of the playing area is dependant on the age of the participants.

Pitch Measurements:

	Number Per Team Including Goalkeeper	Recommended Size Of Pitch
Under 7s and 8s	4 v 4 and 5 v 5	Min Length 90ft (27.45m)
		Max Length 150ft (45.75m)
		Min Width 60ft (18.30m)
		Max Width 90ft (27.45m)
Under 9s and 10s	6 v 6 and 7 v 7	Min Length 150ft (45.75m)
		Max Length 180ft (54.90m)
		Min Width 90ft (27.45m)
		Max Width 120ft (36.60m)

Penalty Area: The penalty area extends 30ft (9.15m) from the goal line and is 54ft (16.47m) wide.

Penalty Spot: The penalty spot is marked 24ft (7.32m) from the goal line, directly opposite the centre of the goal.

Centre Spot: Centre of the pitch.

Both penalty spots and centre spot are marked at a diameter of 10cm (3.94in).

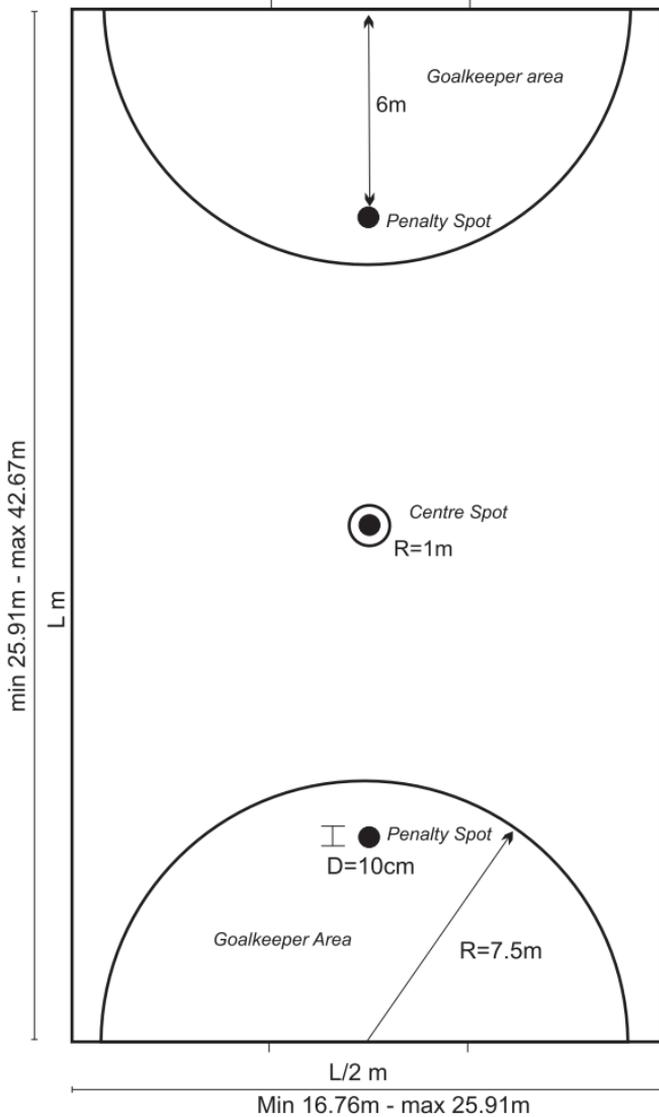
Goal Posts: 12ft by 6ft (3.6m by 1.88m)

Line Width: 5cm (1.97in)

Colour: White



MANAGERS GUIDE
Pedestrian: 10min
Fastliner: 4min



Netball

Netball is a sport traditionally played by women. The object of the game being to score through one of the two goals, however you are not allowed to move with the ball, only pass it to your team mates to reach the other end of the court.

Court Measurement: 30.5m (33.35yds) in length by 15.25m (16.68yds) in width, including the width of the lines.

Court Sections: 3 equal sections of 10.17m/10.16m/10.17m (11.05yds) each, creating a centre third and two goal thirds.

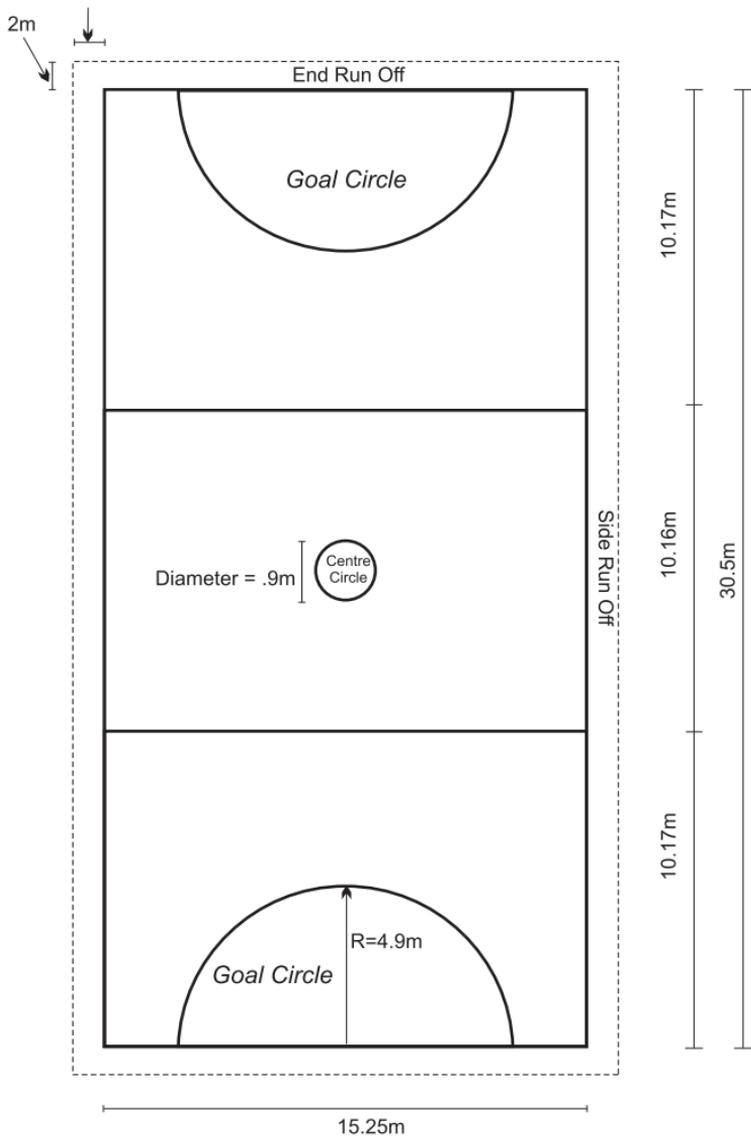
Centre Circle: Radius 4.9m (5.36yds) taken from the mid-point of goal line.

Safety Margins: Need to be marked 2m outside the main court markings at the goal ends (this is called the 'End Run Off') and 1.5m outside the main court markings at the side of the court (this is called the 'Side Run Off').

Line Width: 5cm (1.97in) maximum.

Colour: Typically white but may be red for recreational play.





Rugby League

Rugby is a game played with an oval ball that may be kicked or carried to the opponents end of the field to score.

Rugby league is professional Rugby Football consisting of two 13 player teams.

Pitch Measurement: 100m (109yds) in length by 68m (74.36yds) in width maximum. For adult games the dimensions should be as near maximum as possible. Minimum permissible dimensions should be laid down in the rules of the competition in which a match is played. External dimensions exclude the width of the lines, all other dimensions are measured between the lines.

The broken lines shown in the diagram consist of marks or dots not more than 2m (2.19yds) apart. The transverse broken lines may span the width of the field however if they are restricted, they must not be shorter than 15m long.

The 20m lines and halfway line must be marked across the full width of the field.

Dead Ball Line: 6m (6.56yds) minimum of 11m (12.03yds) maximum behind the goal lines on either side of the field.

Corner Posts: Placed at the intersection of each goal line and touch line. A corner post is in the touch goal area.

Goal Post: They extend indefinitely upwards 5.5m (6.01yds) apart and are connected by a crossbar 3m (3.28yds) from the ground.

Line Width: 5cm (1.97in) wide

Colour: Typically White.

When marking the lines for a Rugby League pitch the touchlines are in the in touch area. The touch in goal lines are in the touch-in-goal area. The goal lines are in the in goal area and the dead ball line is beyond the in-goal area.



Rugby Union

Rugby Union was designed primarily as an amateur sport, consisting of two 15 player teams.

Pitch Measurement: 100m (109yds) in length by 70m (75yds) in width maximum.

Minimum permissible dimensions should be laid down in the rules of the competition in which a match is played.

Dead Ball Line: Should not be less than 10m (10.94yds) or more than 22m (24.06yds) from the goal line.

The six short lines are marked 5m (5.47yds) in front of and parallel to the goal lines and at the 5m and 15m lines. These lines are 1m (1.09yds) long.

Goal Lines: 22m (24yds) from the end line on either side of the field.

Goal Posts: Extend upwards by at least 3.4m and are 5.6m (612yds) apart measured from the inside of the posts, They are connected by a crossbar 3m (3.28yds) from the ground to the top edge of the cross bar.

10 Metre Line: The broken line is marked 10m from and parallel to the halfway line on both sides and 5m from and parallel to the touch line, again on both sides.

Line Width: 5cm (1.97in) wide

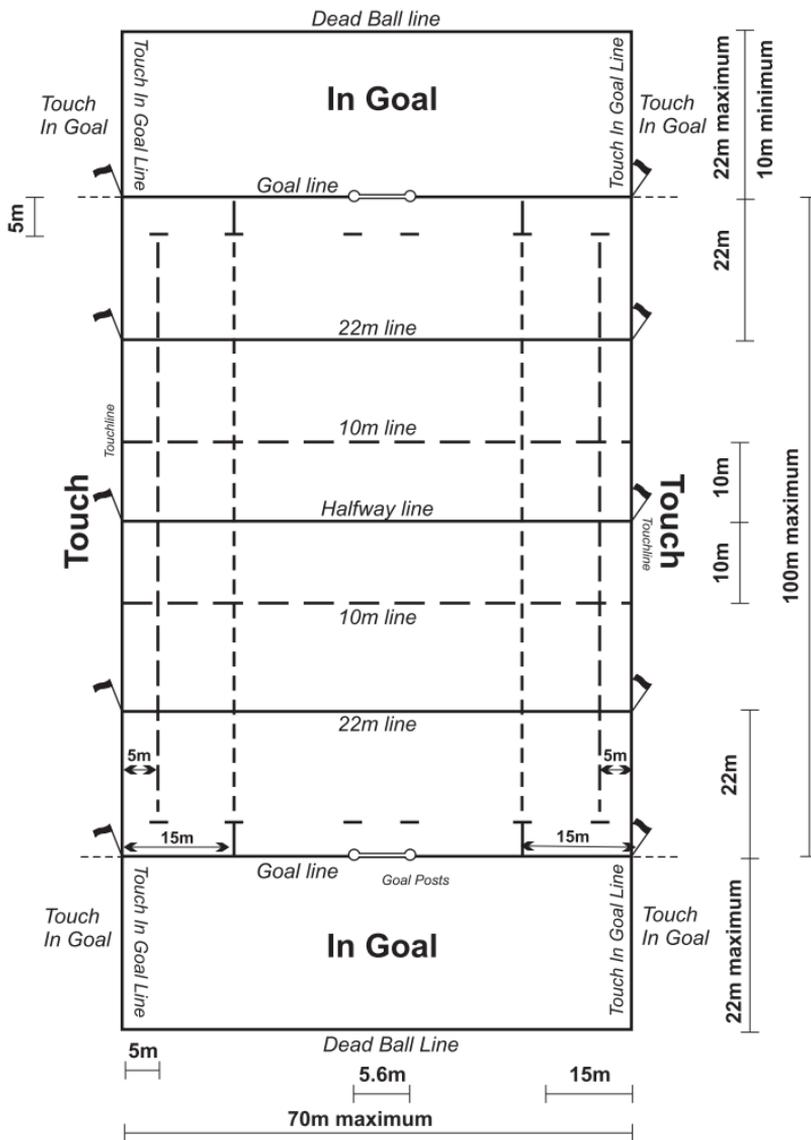
Colour: Typically White

When the lines for Rugby Union are being marked the touch lines are in the in-touch area. The goal lines are in the in-goal area. The dead ball line is not in the in-goal area. The touch-in goal lines and corner posts are in the touch-in-goal area.

N.B. In certain competitions, provisions need to be made for two technical areas. They are not to exceed 10m² and will be at least 1m from the touchline. The technical areas must be clearly designated between the touchline of the pitch and any perimeter or pitchside fencing or barrier.



MANAGERS GUIDE	
Pedestrian:	30min
Fastliner:	8min



Softball

Softball is very similar to baseball, played with a softball, where two teams seek to strike the ball thrown by the opponent and traverse four bases.

Infield Dimensions:

YOUTH DIMENSIONS: SLOWPITCH	
Under 10	Bases 16.76m (55') Pitching 10.67m (35')
Under 12	Bases 18.29m (60') Pitching 12.19m (40')
Under 14	Bases 19.81m (65') Pitching 14.02m (46')
Over 14	Bases 19.81mm (65') Pitching 15.24m (50')

Pitchers Circle: Radius of 2.44m (8').

Pitchers Plate: Is a piece of heavy rubber measuring 15cm (6") wide by 60cm (24") long.

Home Plate: Is a five sided piece of heavy rubber measuring 44cm (17") across, and 22cm high (parallel to the inside lines of the batter's box). The remaining sides facing the catcher are 30.5cm long.

FASTPITCH DIMENSIONS	
Adult	Bases 18.29m (60') Pitching / Men 14.02m (46') Pitching / Women 12.2m (40')
Under 12	Bases 16.76m (55') Pitching / Girls 10.67m (35') Pitching / Boys 12.19m (40')
Over 12	Bases 18.29m (60') Pitching / Girls 12.19m (40') Pitching / Boys 14.02m (46')

The distance between the pitcher's plate and the home plate varies, please see table.

Batter's On Deck Circles: Radius of 76cm (30")

Coaches Box: Are unclosed rectangles, behind and parallel to the foul line. They are drawn 2.4m (8') from the first and third base, and are 4.57m (15') long, and 0.9m wide.

Batter's Box: 1m (3') wide by 2.2m (7') long and are marked one on either side of the home plate.

Catchers Box: 2.75m (8.5') wide and 3.06m (10') long outside the corners of the batter's box.

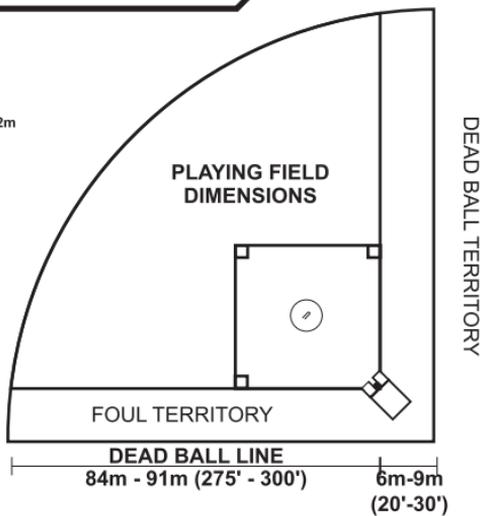
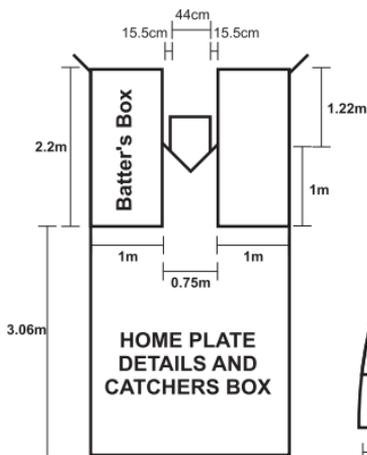
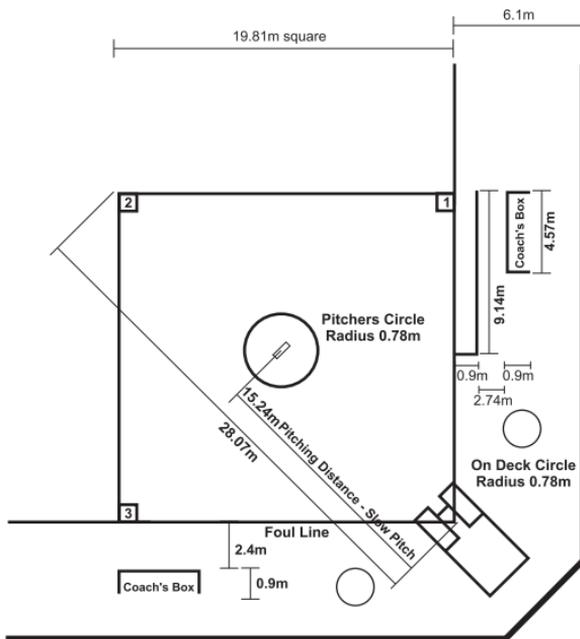
0.91m (1yrd) Line: Marked Halfway between the home plate and first base, parallel to the baseline and 0.9m (3') to the baseline 9.14m (30') in length.

Line Width: Recommended 12.7cm (5")

Colour: White



MANAGERS GUIDE	
Pedestrian:	8min
Fastliner:	4min



Tennis

Tennis is one of the most popular sports in the world. It is played on a court with a net strung in the middle of the court, a racket and a ball. This game may be played with two as singles or four as doubles and can be played both indoors and outdoors.

Court Measurement:

Doubles: 23.77m (78ft) long by 10.97m (36ft). Including the width of the lines.

Singles: As above.

A diagonal check measurement to assist in setting out courts can be done. It is taken from where the net and the outside sideline intersect to the opposite corners of the court. For singles that measurement would be 14.46m (15.81yds) and for a doubles court would measure 16.18m (17.69yds).

Centre Service Line: 12.80m (14yds) long. Parallel to the sidelines directly in the middle of the court and meets perpendicular at the service lines.

Centre Mark: 10cm (3.9yds) long marked directly in the middle of the baselines at both ends of the court.

Service Line: 6.4m (7yds) from the centre of the court and 8.23m long, on either side of the Centre Service Line.

Tramlines: 1.37m (15yds) from the outside edge of the sidelines on either side of the court.

Run-Back And Side Run: Recommended 6.4m (7yds) - maximum / 5.49m (6yds) - minimum and 3.66 (4yds) - maximum / 3.05m (3.4yds) minimum respectively.

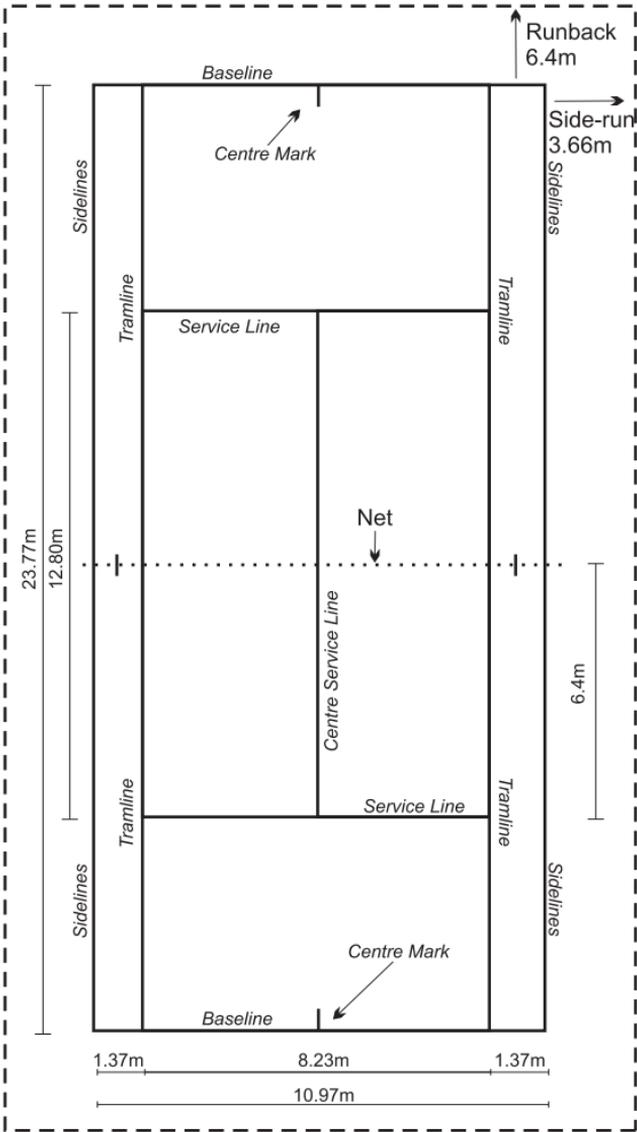
Net: 0.914m (3ft) high and 12.8m (42ft) long. Placed in the centre of the court dividing the court equally into two sides.

Line Width: 5cm (2") wide

Colour: White



MANAGERS GUIDE	
Pedestrian:	20min
Fastliner:	7min



Touch Rugby

Touch Rugby is one of New Zealand's fastest growing sports. Touch Rugby is played with an oval ball that is carried to the opponent's end of the field to score.

Pitch Measurement: 70M (76.55yds) in Length by 50M (54.68yds) in width maximum. For adult games the dimensions should be as near maximum as possible. Minimum permissible dimensions should be laid down in the rules of the competition in which a match is played.

Broken Line: The Broken lines shown in the diagram consist of marks or dots not more than 2M (2.19yds) apart. 5M (5.46yds) out from the touchdown line at each end & 10M (10.93yds) on either side of the halfway line.

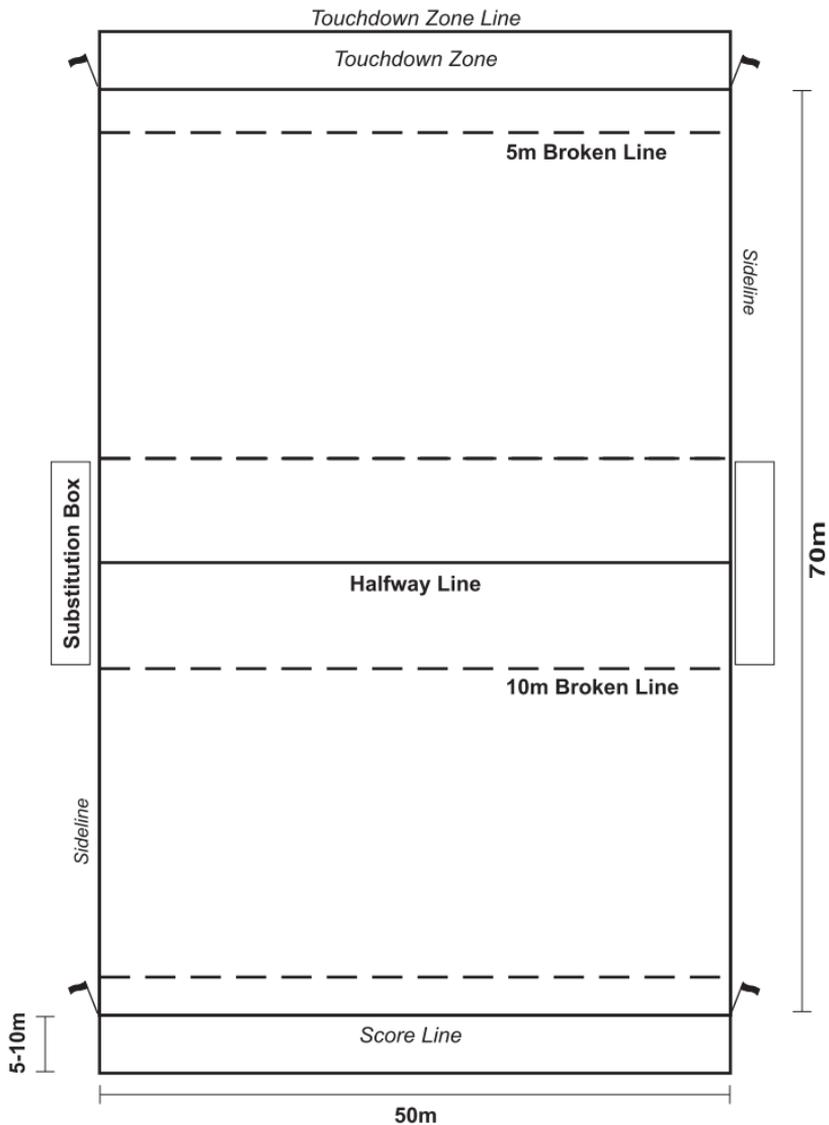
Dead Ball Line: 5M (5.46yds) minimum to 10M (10.93yds) Maximum behind the touchdown line on either end of the field.

Line Width: 5cm (1.97in) wide

Colour: Typically white



MANAGERS GUIDE
Pedestrian: 20min
Fastliner: 7min



Ultimate Frisbee

Ultimate is a non-contact, self-refereed team sport played with a flying disc (or Frisbee™).

Two teams of seven players compete on a playing field about the same length as a football field, but narrower. At each end of the playing field there is an end zone. Each team defends one end zone. They score a goal if one of their players catches the disc in the opposite end zone.

Ultimate relies upon a Spirit of the Game that places the responsibility for fair play on every player. There are no referees; the players are solely responsible for following and enforcing the rules, even at World Championship. Competitive play is encouraged, but never at the expense of respect between players, adherence to the rules, and the basic joy of play.

Playing Surface Measurement:

The playing field is a rectangle area with dimensions as shown in figure 1

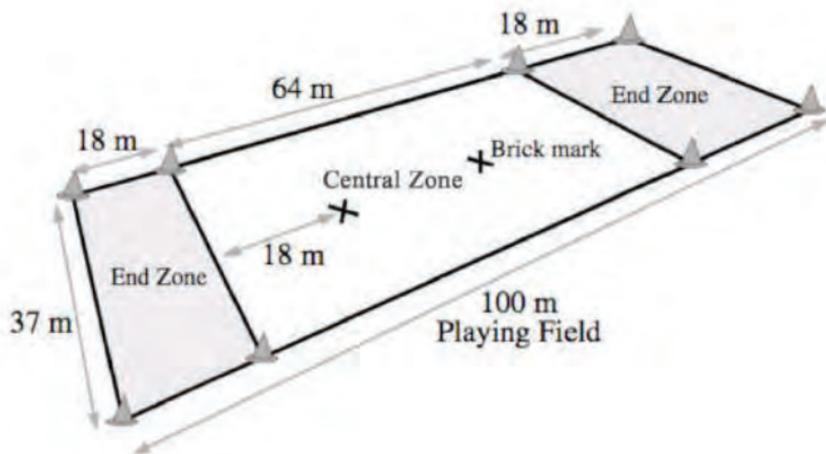
The perimeter lines surround the playing field and consist of 2 sidelines along the length and 2 endlines along the width.

The perimeter lines are not part of the playing field.

The brick mark is the intersection of 2 crossed 1 metre lines in the central zone set 18 metres from each goal line, midway between the sidelines.

8 brightly-coloured , flexible objects (such as plastic cones) mark the corners of the central zone and the end zones





WOMEN'S LACROSSE PITCH

La Crosse is the Canadian national game and was originally played as training for warfare in North America by Native Americans. Women's La Crosse is played by two teams of 12 players. The object of the game is to score the ball in the opposing team's goal post by using the crosse, which is a special netted stick with which the ball is caught.

COURT MEASUREMENT: Suggested – 107m (117yds) long by 60m (70yds) wide, with two lines, each marked 27m (29.5yds) from each goal line.

CENTRE CIRCLE: Radius of 9m (9.8yds). A line is marked 3m (3.28yds) long and parallel to the goals, in the centre circle.

GOAL LINES: No more than 92m (95.3yds) and no less than 82m (89.9yds) apart. They measure 1.83m (2yds) in length and run parallel to the width of the field. There should be 9m playing space behind each goal line, running the width of the field.

GOAL CIRCLE: Radius of 3m (3.28yds) from the centre of the goal line to the outer edge of the goal circle.

15M FAN: Radius of 15m (13.9yds) a semi-circle is marked from the centre of the goal circle. A line is marked from each end of the semi-circle to the goal circle and level with the goal line.

11M AREA: (fig b) On the goal circle mark ABDB, using D as the centre, lightly draw a semi-circle of radius 11m (12yds). Mark G. Connect A to B and extend to semi-circle marking C on each side. Mark hash marks 31cm (0.03yds) long at G and mark 3 hash marks where semi-circle intersects goal line extended. Mark a solid curve from C to C. Mark a solid line from B to C.

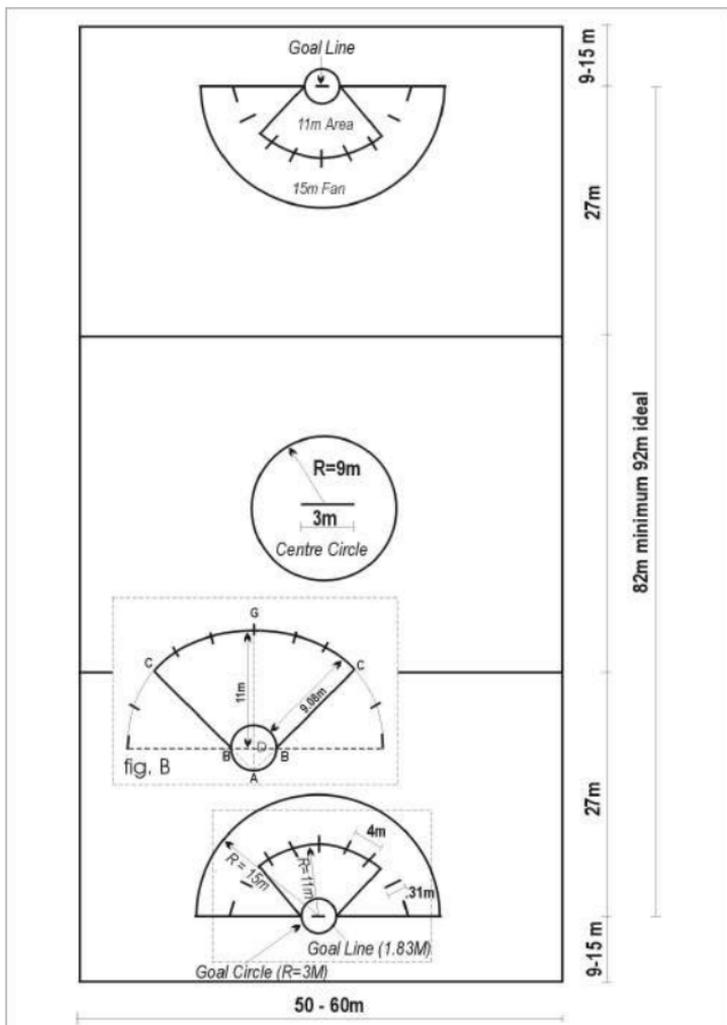
GOALS: 92m (100yds) apart (inside measurements) and are made up of two white 1.83m (1.97yds) poles with white 1.83m (1.97yds) crossbar at the top.

NET: The net is attached to the poles and crossbar and fastened to the ground 1.83m (2-3yds) behind the goal line.

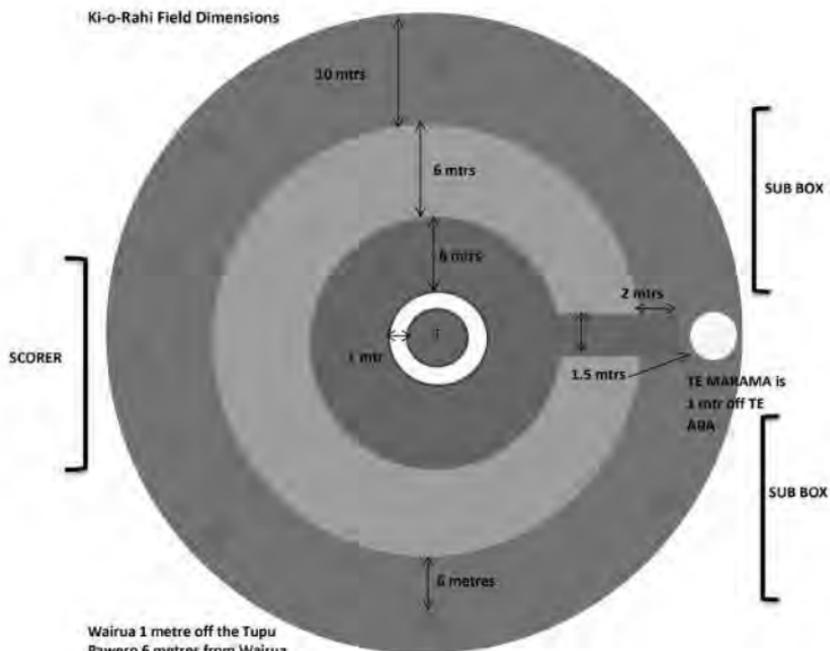
LINE WIDTH: 5cm (1.97 in).

COLOUR: White.





Ki O Rahi



Wairua 1 metre off the Tupu
 Pawero 6 metres from Wairua
 Te Roto 6 metres from Pawero
 Nga Pou 6 metres from Te Roto
 Outside boundary line 4 metres from Nga Pou
 Ti Ara 8 metres long and 1.5 metres wide
 Te Marama has a 1.5 metre radius



Weights & Measures

Length

1 millimetre (mm)		= 0.0394in
1 centimetre (cm)	= 10mm	= 0.3937in
1 metre (m)	= 100cm	= 1.0936 yd
1 kilometre (km)	= 1000m	= 0.6214miles
1 inch (in)	= 2.54cm	= 25.4mm
1 foot (ft)	= 12in	= 0.3048m
1 yard (yd)	= 3ft	= 0.9144m
1 mile	= 1760yd	= 1.6093km

Area

1 sq cm (cm)	= 100mm	= 0.1550in
1 sq metre (m)	= 1000cm	= 1.1960yd
1 hectare (ha)	= 10000m	= 2.4711 acres
1 sq km (km)	= 100ha	= 0.3861mile
1 sq inch (in)	= 6.4516cm	= 645.16mm
1 sq yard (yd)	= 9ft	= 0.8361m
1 acre	= 4.840yd	= 4046.865m
1 sq mile (mile)	= 640acres	= 2.59km

Volume/Capacity

1 cu metre (m)	= 1000dm	= 1.3080yd
1 litre (l)		= 0.2642 US gal
1 litre		= 0.2200 Imp gal
1 cu foot (ft)		= 0.0283
1 cu yard (yd)		= 0.7646

Mass Weight

1 gram (g)	= 1000mg	= 0.0353oz
1 kilogram (kg)	= 1000g	= 2.2046lb
1 ounce (oz)		= 28.350g
1 pound (lb)	= 16oz	= 0.4536

SPRAY MARKING PAINTS

Bright white, rain resistant and long lasting – who could ask for more?

Fleet's Market Leading range of field marking paints for spray machines offer the ultimate in performance and reliability. Designed with the ground's staff and sports turf manager in mind, the Fleet product disperses directly in water removing the unnecessary downtime of mixing.

The products have been developed not to fall out of suspension preventing the liquid from going hard in the bottom of the machine or drum. Instead, the products only offer 'soft settle'; therefore allowing the product to be easily re-mixed back into the water.

From ready-to-use to dilution rates as high as 15 parts water to 1 part paint Fleet offer a product to suit every groundsman's needs.

The product is supplied in 1000 or 200 litre tanks or in 10, 15, 20 litre eco friendly containers and is also available in a wide range of colours.

PITCHMARKER C

Pitchmarker C is the most ecologically friendly line marking liquid currently on the market, this marking liquid is 'Elite' in its 4:1 dilution range with high brightness and amazing dilution and settlement properties. Available in White.



FASTLINE

Ideal for spray machines (can be used for wheel to wheel machines) High Brightness, rain resistant and very long lasting line. Supplied in 10 / 20 litre buckets, 200 litre drums or 1000 litre multifills. Dilute between 2:1 and 8:1. Available in White and Black.



COLOUR XS

Ideal for all spray machines. Supplied in 15 / 20 litre buckets, 200 litre drum or 1000 litre multifill. Dilute between 2:1 and 4:1 for optimum performance. Bright, rain resistant and long lasting line. Available in Black, Blue, Green, Red, Yellow. (Colour matching facility available).



BLINDER

When high impact white lines are a must look no further than our Blinder marking liquid, Blinder is the most extreme concentrate of our marking liquid Range, Blinder's properties include extremely bright lines in its lower dilution range. Ideal for spray machines and wheel-to-wheel machines. Supplied in: 10 / 20 litre buckets or 200 litre drums. Dilute between 5:1 and 14:1 for optimum performance Extremely bright, very rain resistant and very long lasting line. Available in White.



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