

# WFTDA TRACK LAYOUT GUIDE

Updated March 2015

For use with *Appendix A: WFTDA Track Design and Specifications*

## MATERIALS REQUIRED:

- Tape measure (at least 100 feet or 30.48 meters)
- Marking tape, chalk, or some other method of making marks
- At least 385 feet (117.35 meters) of rope, rope light, or some sort of raised boundary-making material. *The Rules of Flat Track Roller Derby* also specify that the material must be between 0.25 (0.64 centimeters) and 2 inches (5 centimeters) in diameter (See *Section 1.2.3*).
- Enough tape to cover all the rope, plus to create markings for the Pivot and Jammer Lines, 10-foot (3.05-meter) markers, areas such as the Penalty Box and outside Referee/safety lanes, and any other markings as necessary. Also include spare tape to allow for track repair should the track become damaged. It is advisable to overestimate how much you will need.
- *The Rules of Flat Track Roller Derby* indicate the width of tape for boundaries and Pivot/Jammer Lines must be between 1 and 3 inches (*Section 1.2.3.1*). The tape and skating surface must have a "high contrast" to the satisfaction of the Head Referee (*Section 1.2.2.1*). Please consult *The Rules of Flat Track Roller Derby* for more detail.

## CREATE THE BOUNDARIES OF THE WFTDA ROLLER DERBY TRACK

Space needed for the track (assuming center line is parallel with the venue walls):

Length (including 10-foot/3.05-meter safety lane outside the track): 108 feet (or 32.92 meters)  
(minimum 5-foot/1.52-meter safety lane outside the track): 98 feet (or 29.87 meters)  
(excluding outside lane): 88 feet (or 26.82 meters)

Width (including 10-foot/3.05-meter safety lane outside the track): 75 feet (or 22.86 meters)  
(minimum 5-foot/1.52-meter safety lane outside the track): 65 feet (or 19.81 meters)  
(excluding outside lane): 55 feet (or 16.76 meters)

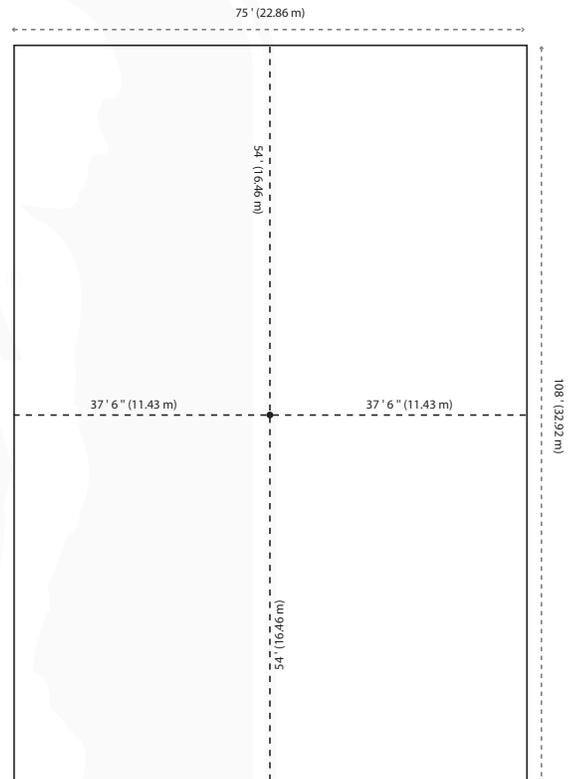
For Regulation or Sanctioned play that adheres to the current WFTDA Safety Protocol, the minimum 5-foot (or 1.52-meter) safety buffer on the outside can only be used if there is a rail, wall, or barrier between the track and the audience that completely prevents contact between spectators and contestants; otherwise, the lane must measure 10 feet (or 3.05 meters). Please note that there also must be space for the Penalty Box Area outside of these margins. The exact location of the Penalty Box is not fixed and can be positioned wherever is most convenient within the dimensions of the venue's skating area. If team benches are located outside of the track, they must also be taken into account when positioning the track within the skating area.

For the rest of this document, it will be assumed that the optimum 10-foot outside lanes are in use. All metric measurements are rounded to the nearest centimeter.

# 1. LOCATING THE CENTER LINE AND CENTER POINT OF THE TRACK

This is the initial point of reference from which all other dimensions will be determined, so it is crucial to ensure there is enough space. This line runs the length of the track down the center; it is often easiest to make this line parallel with the walls of the hall, assuming that your venue is rectangular. There must be at least 37 feet 6 inches (or 11.43 meters) of space on either side of the center line.

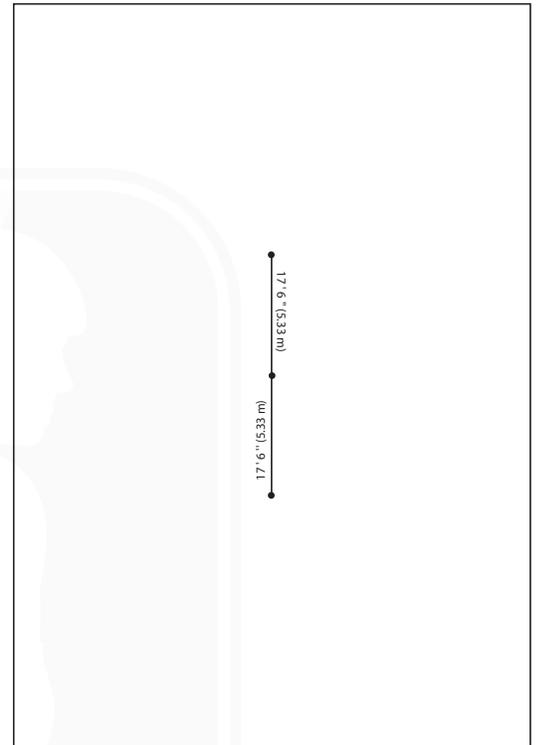
Once you have found a suitable position for your center line, with 37 feet 6 inches (or 11.43 meters) on either side, lay down the tape measure to measure out 108 feet (or 32.92 meters) along the center line. The center point is exactly halfway along this measurement (54 feet [or 16.46 meters] from each end).



*Fig. 1 - playing area indicated by a basic rectangle measuring 108 feet by 75 feet (or 32.92 meters by 22.86 meters), with the center line plotted along the length of the rectangle and 54 feet (or 16.46 meters) indicated on either side of it.*

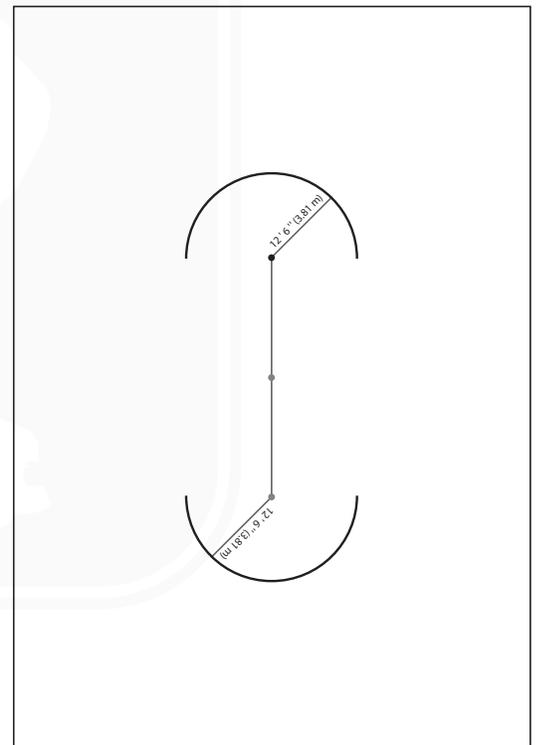
## 2. MARKING THE INSIDE ARCS

From the center point, measure 17 feet 6 inches (or 5.33 meters) along the center line in both directions and mark these inside arc points. They are the points used to measure the inside arcs. This can be done with a piece of rope or chain measuring 12 feet 6 inches (or 3.81 meters), or the tape measure.



*Fig. 2 - as Fig. 1 but with the center line plotted and the 17 feet 6 inches (or 5.33 meters) measurements along the center line from the center point indicated.*

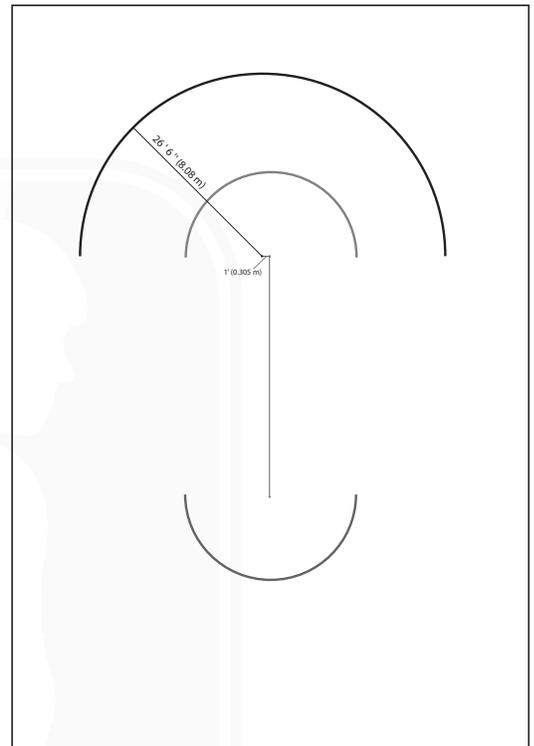
Holding one end of the measuring rope at the inside arc point, use a piece of chalk (or some other means of marking a line) held at the other end of the rope to draw a semicircle, and repeat at the other inside arc point.



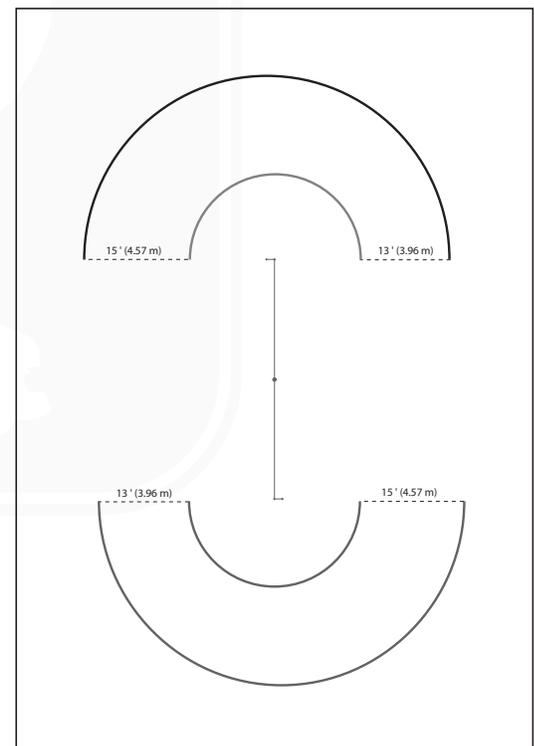
*Fig. 3 - as Fig. 2, but with the inside arc points plotted, and the inside arcs drawn in, with the inside arc measurement of 12 feet 6 inches (or 3.81 meters) indicated.*

### 3. MARKING THE OUTSIDE ARCS

The outside arcs are offset from the inside arcs so that when skating in a counterclockwise direction, the track is wider at the exit of the turns than at the entrance of the turns. The arc point for the outside arcs, therefore, must be offset from the inside ones. These outside arc points are located 1 foot (or 0.30 meter) from each inside arc point, perpendicular to the center line, to the left of the inside arc point as seen from the center point. Once these outside arc points have been plotted, you will need another piece of measuring rope that measures 26 feet 6 inches (or 8.08 meters). One end of this outside arc rope is held at the outside arc point; use a piece of chalk held at the other end of the rope to draw a semicircle. Repeat at the other outside arc point.



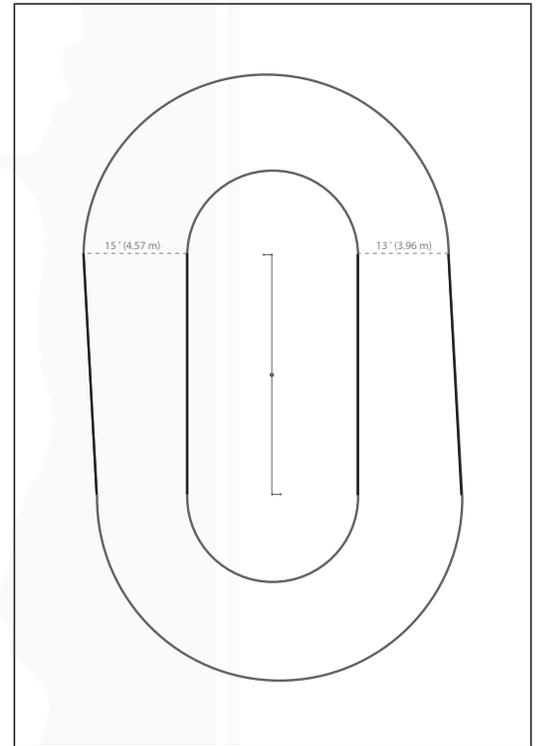
*Fig. 4 - as Fig. 3, but with the outside arc points plotted and the 1-foot (or 0.30-meter) distance from the center line/inside arc points indicated, and the outside arcs drawn in, with the outside arc measurement of 26 feet 6 inches (or 8.08 meters) indicated.*



*Fig. 4a - as Fig. 4, but with both sets of arcs drawn in, and the track width measurements of 13 feet (or 3.96 meters) across the entrance to the turns, and 15 feet (or 4.57 meters) across the exit of the turns.*

## 4. DRAWING IN THE STRAIGHTAWAYS

Draw straight lines from the ends of one inside arc to the opposite ends of the other inside arc, and the same with the outside arcs. This will give you the straightaways and the shape of the track should be complete. Before moving on, check that the offset is correct: From the perspective of a person skating round the track in a counterclockwise direction, the turns should be wider at the exit than at the entrance. The track should be 13 feet (or 3.96 meters) wide at the entrance to the turns, and 15 feet (or 4.57 meters) wide at the exit of the turns.



*Fig. 5 - as Fig. 4, but with the straightaways connected and the offset indicated.*

These steps will have drawn the outline of the track; on top of these lines, rope should be laid directly over the lines and securely covered with tape.

# MARKING PIVOT AND JAMMER LINES, AND PLOTTING 10-FOOT (3.05-METER) MARKERS ON THE TRACK

As a guide for game play elements such as pack definition and determining the Engagement Zone, you may put small markers – usually short lines of tape of roughly 1–2 feet (or 0.30–0.60 meter) – spaced 10 feet (or 3.05 meters) apart, located in the middle of the track. This stage begins with mandatory Pivot and Jammer Line marking; use tape stretching from the inside boundary to the outside boundary.

There are several alternative methods for plotting these 10-foot (or 3.05-meter) markings, but the method described below is the simplest and most widely used means of doing so.

## 1. MARKING THE PIVOT AND JAMMER LINES

On one straightaway, place tape from the inside boundary to the outside boundary in a line perpendicular to the center line at the point from which the inside arc was measured (at the narrowest point of the straightaway just before it enters the turn). This is the Pivot Line.

From the Pivot Line, measure along the inside boundary of the straightaway and place markers in the middle of the track at 10 feet (3.05 meters) and 20 feet (6.1 meters). At 30 feet (9.15 meters) from the Pivot Line, another line is marked with tape from the inside boundary to the outside boundary, perpendicular to the center line. This is the Jammer Line.

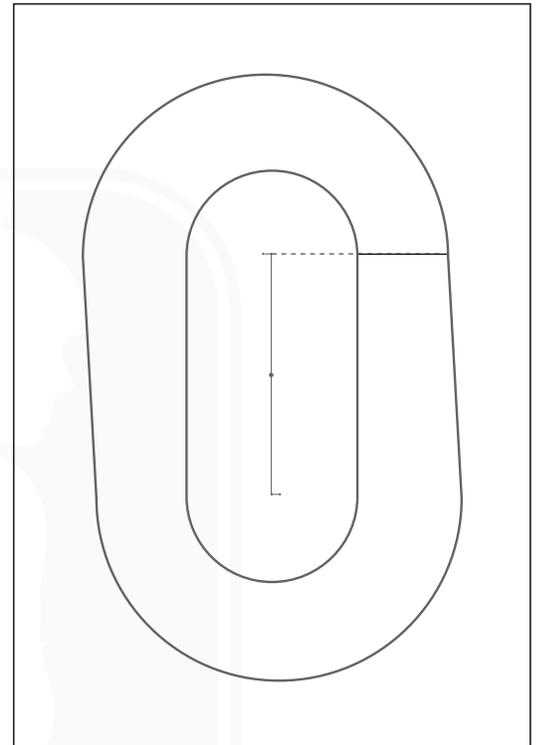


Fig. 6 - track outline, with the center line and inside arc points illustrated, and the Pivot Line drawn in.

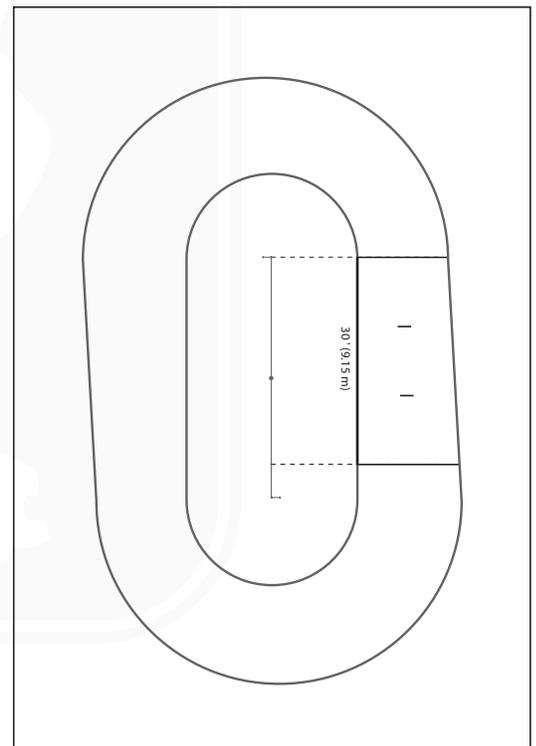


Fig. 7 - as Fig. 6, but with the relevant 10-foot/3.05-meter markers drawn in the middle of the track along the straightaway and the Jammer Line drawn in.

## 2. PLACING 10-FOOT (3.05-METER) MARKERS ON THE OPPOSITE STRAIGHTAWAY

The next stage is to put the 10-foot markings on the opposite straightaway. Plot the first mark (labelled A on Figure 8) perpendicular to the center line at the other inside arc point so it is at the narrowest point of the straightaway opposite the one with the Pivot and Jammer Lines. Measure along the inside boundary of the straightaway and place markers in the middle of the track at 10 feet (or 3.05 meters), 20 feet (or 6.1 meters), and 30 feet (or 9.15 meters) along the straightaway from the first marker (A).

## 3. PLACING 10-FOOT (3.05-METER) MARKERS ON THE FIRST CURVE

From the initial point (labelled B in Fig 9) where the Pivot Line meets the inside boundary, measure a straight line in a counterclockwise direction that intersects the inside boundary 7 feet ½ inch (or 84.5 inches; or 2.15 meters) from point B. This measurement is direct from one point to another, and should not be measured following the curve of the inside boundary. Make a small mark on the inside boundary at this intersection point (labelled C in Fig 9) — this will be a guide for later. Then, from point C, measure counterclockwise another 7 feet ½ inch (or 84.5 inches; or 2.15 meters) in a direct line to where it intersects the inside boundary. Make another mark by the inside boundary at this point (D). Repeat this measurement three times more to give you points E, F, and G. The final segment from G to the markers on the straightaway will measure slightly more than 7 feet ½ inch (or 84.5 inches; or 2.15 meters) — this is absolutely fine.

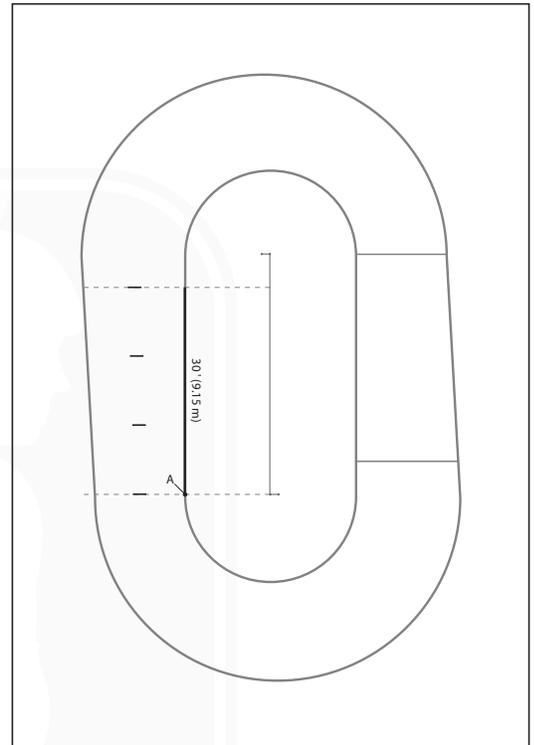


Fig. 8 - as Fig. 7, but with the opposite straightaway's markers drawn in, and an 'A' label attached to the marker perpendicular to the inside arc point opposite to the one from which the Pivot Line was drawn.

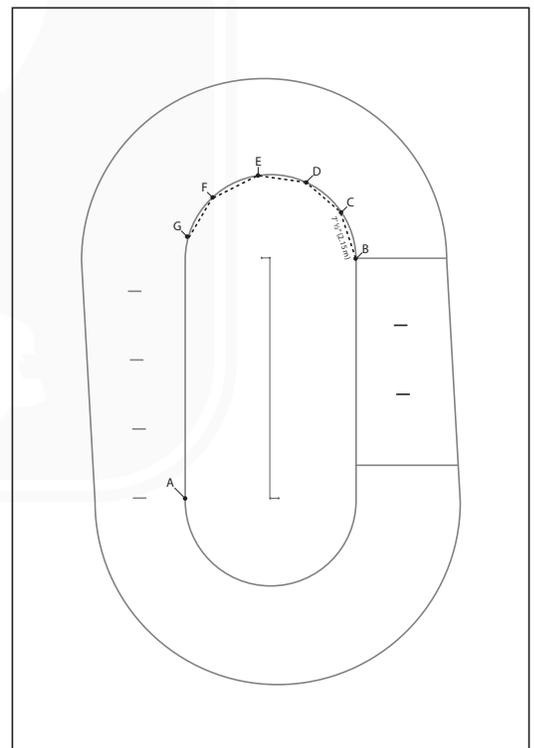


Fig. 9 - as Fig. 8, but with the point where the Pivot Line meets the inside boundary labelled as B, then a straight-line measurement of 7 feet ½ inch (or 84.5 inches; or 2.15 meters) across the inside boundary to point C, then the same measurement from C to D, D to E, E to F, and F to G in a counterclockwise direction along the curve of the inside boundary.

One person should stand on the inside arc point, holding a piece of string (rope, chain, or measuring tape would also work), with another person on the outside boundary holding the other end of the string taut. This string is used as a radius to indicate where the 10-foot (or 3.05-meter) markers are located in the middle of the track. The person on the outside boundary moves so the string lines up with the small marks on the inside boundary; then, a 1-2 foot (or 0.30-0.60 meter) tape marker can be placed along the line of the string in the middle of the track, and these tape markers will measure 10 feet (or 3.05 meters) from each other along the track.

#### 4. PLACING 10-FOOT (OR 3.05-METER) MARKERS ON THE SECOND CURVE

Repeat step 3 starting from point A.

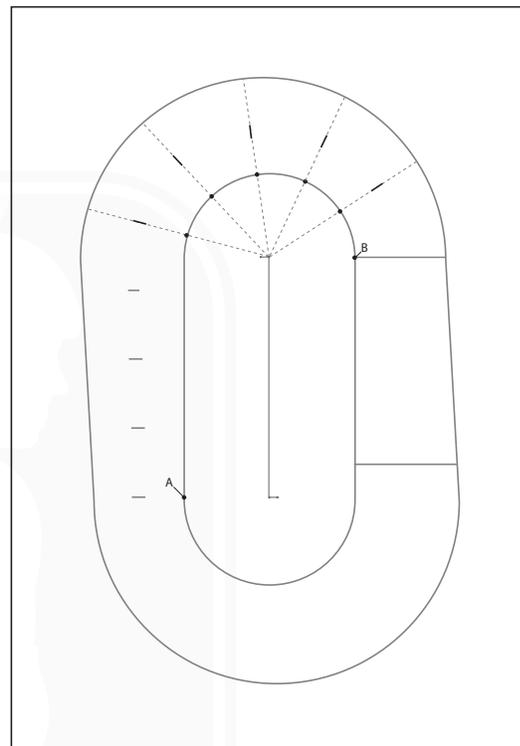
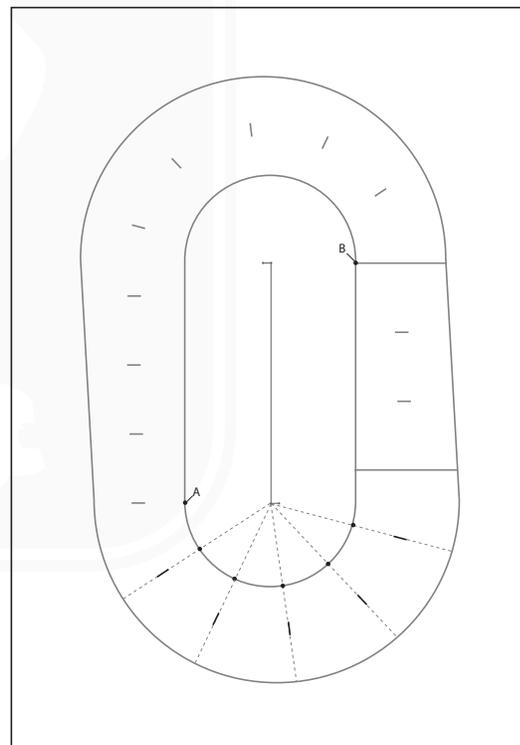


Fig. 10 - as Fig. 9, but with dotted radial lines stretching from the inside arc point to the outside boundary through the various lettered points B to G, and markers plotted along those lines in the middle of the track.



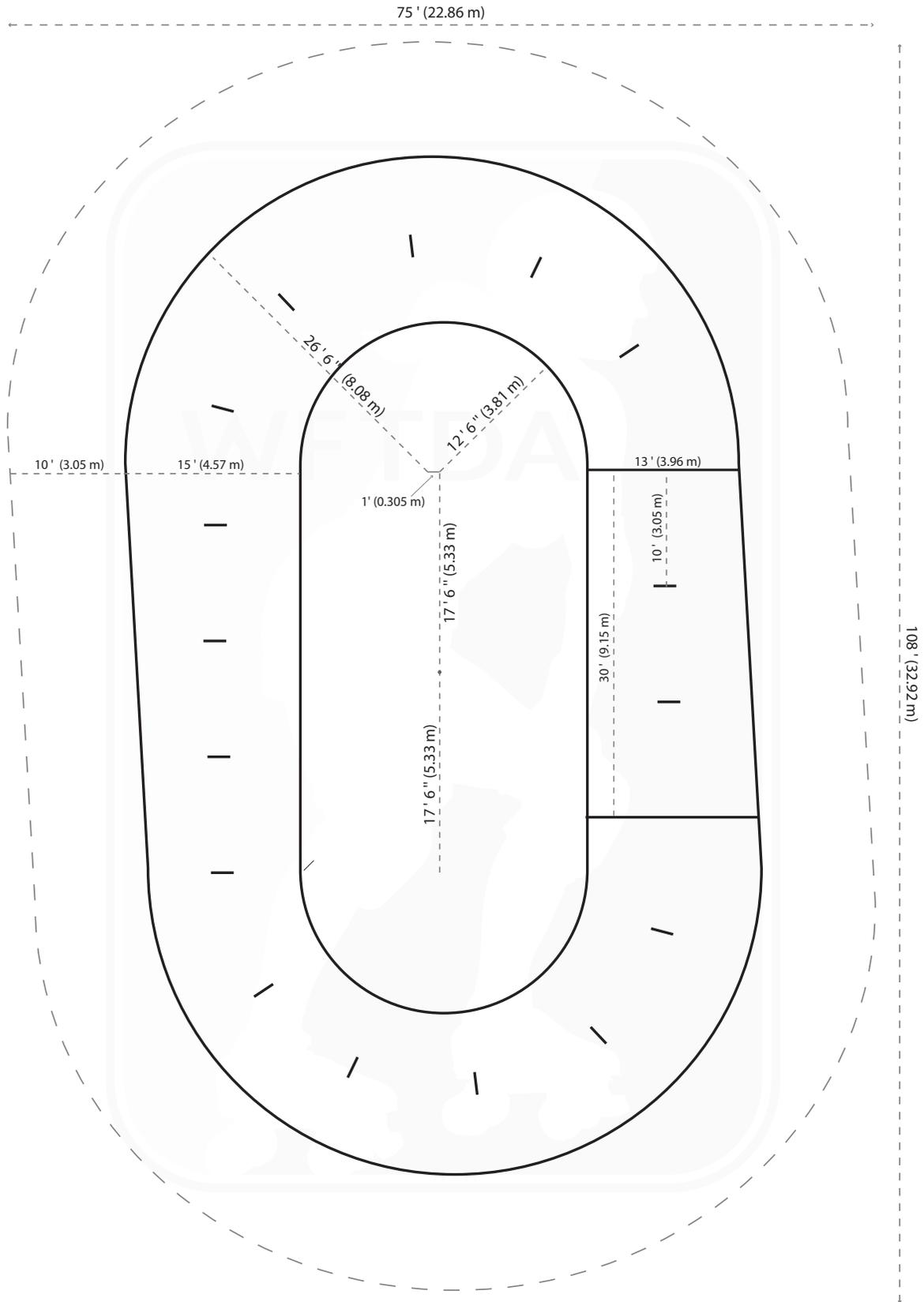


Fig. 12 - WFTDA Track Specifications