

# Fastest Possible Right Turn on Public Streets

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Some people wonder why slow-speed parking lot practice exercises are meaningful given that they usually travel at much faster speeds when they are riding their bikes.

Let me share with you an example that might shed some light on this question.

A young man who was relatively inexperienced with motorcycle riding decided to make a 90 degree right turn from one street onto another. He was traveling at a speed substantially in excess of 35 MPH, but he claimed that he was certain that he could 'make it' if he just slowed down to 35 MPH before he gave it a try. Needless to say, he didn't.

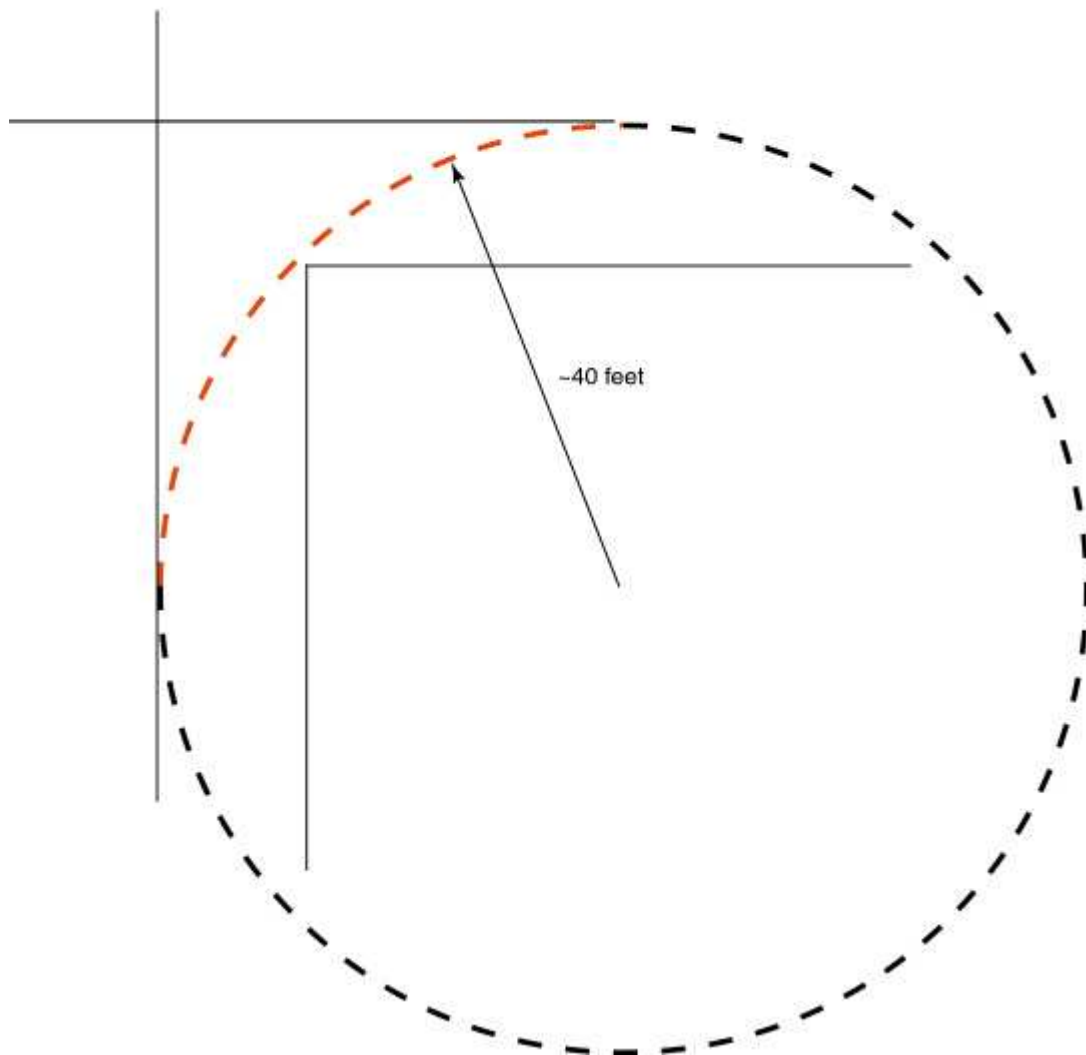
So why not? Was it just a matter of skill?

Well, consider these facts:

- The width of a standard lane in the United States is approximately 12 feet.
- In order to make the fastest turn you must select a path that provides the largest turn radius.
- Thus, you will want to carve a path from the outer edge of the approach lane, into as close as possible to the curb as your apex, then out to the outer edge of the new lane.
- The largest radius possible is approximately 40 feet in this scenario.
- If you don't drag any hard parts of the motorcycle along the way then your limit is determined by the amount of traction available. (on good streets with good tires that could be upwards of .9G's of centrifugal force.)

Here is a diagram to put it all in perspective:

Lane width = 12 feet  
90 degree turn has maximum radius of 40 feet  
At 23 MPH that's 0.9 g's (lean angle of 41 degrees)



Observe that the fastest possible speed through that turn is about 23 MPH. That is about as fast as you ever go while doing parking lot practice.

In order to make a tighter turn than that you **MUST** go slower. When you are practicing making U-turns you usually do it at about 10 MPH, no? 35 MPH is **FAST!** Making that turn at 35 MPH is an **impossible** task for the most experienced motorcyclist in the world, let alone a newbie.

For those of you who would like to check out other scenarios, here is a model that will do the calculations for you: <http://www.msgroup.org/images/bike.xls>

The author has given me permission to use these tips and techniques in our newsletters.

Just to add a note to this article we practice tight turns at lower than 10mph!!