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## Forced To Run The Red?

← Say's it all! Entrapment for \$\$.

Elaine Murphy, KOIN 6 News

BEAVERTON, Ore., 6:36 p.m. PDT May 16, 2001 -- Is the yellow light so short, it forces you to run the red?

After timing a light in Beaverton where the red-light running camera is located, KOIN 6 News' Elaine Murphy turned to an expert for answers.



The City of Beaverton says the red light running cameras here have been a huge success, nabbing 12 red light runners a day. But a traffic expert says the The Beaverton-Hillsdale Highway and Griffith Drive intersection's design makes it so you many can't stop in time.

Last February, we timed the lights and discovered the yellow is shorter at this intersection than it is at the next four intersections to the east along Beaverton-Hillsdale Highway.

There's a three-and-a-half second yellow light at any intersection in Beaverton with a 30 mile per hour speed.

But is that enough time to let you stop safely?

Dr. Kent Lall of Portland State University has won national awards, and written a book on transportation engineering. We went to him with the problem, and he showed us the mind-numbing equations engineers use to set the yellow time. As we approach a yellow light, if we are far enough back we know we can't go through the light in time. If we are too close to the light as it turns yellow, we know we can't stop -- we have to gun it through.

What happens if the yellow light is too short? The point at which you can't go, and can't stop overlap. That's what engineers call the dilemma zone.

We carefully measured the intersection according to Lall's instructions. From the stop bar at the back of the crosswalk to the front line of the opposing crosswalk measures 100 feet.

As he works the equation, he plugs in the posted speed at 30 miles per hour, the average car length of 20 feet. For reaction time we used one second, although it can be as high as six seconds. The rate of deceleration is figured in and it turns out that the yellow should be six seconds long.

The city says this intersection is set according to the state standard for a road with a posted speed of 30. But the next intersection has a longer yellow.



The Virginia Department of Transportation found when it increased the yellow time at one of the state's red light camera intersections, red light running dropped to almost nothing.