COGENT LEGAL

How to Effectively Use Surveillance Video in Tort Cases

by Morgan C. Smith
Owner of Cogent Legal
(Originally published January 23, 2013 on Cogent Legal's blog)

One of the things that has changed the most since I started practicing law two decades ago is the prevalence of surveillance video in tort cases. Twenty years ago, surveillance was still primarily captured on videotape and was expensive and difficult to use and store as evidence. It was unusual for our litigation team to obtain any surveillance video for cases, and on the rare occasion we did get it, it never showed anything useful because it tended to be shot from a single camera pointed at an unhelpful angle.

However, with the growth of digital recording equipment and affordable disk space on computers, surveillance video and its use in court has skyrocketed. Now, not only is it common to have surveillance video available for a lawsuit, it's also very likely to have the incident shown from more than one view. Videos from taxis, buses, buildings and street intersections often all combine to give multiple views of an incident.

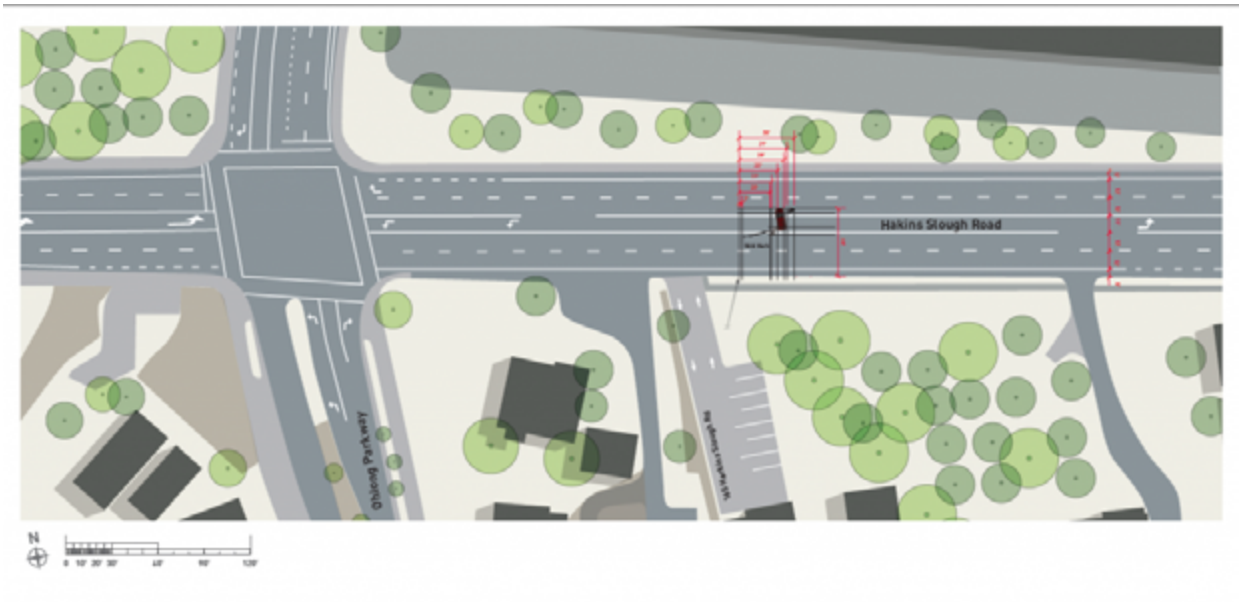
Given the prevalence of surveillance video and its influence on litigation, it's important for both plaintiffs and defendants to understand its limitations and how it can lead to misunderstanding rather than illumination of the incident. There is no question that surveillance video can be absolutely key evidence used by both sides to try to prove their case. It cannot be ignored by either side, and what the jury believes the video shows can determine how they decide the case.

One potential problem with using surveillance video as evidence is the simple fact that it generally does not capture "normal" time views. For surveillance video to be as efficient in file size as possible, it often takes a picture only 8 times per second, or sometimes as low as 1 time per sec. If you play a video taken at 8 frames per second at normal video speed, it appears as if everything happened much faster than it actually did. This can and should be fixed in export to make the video play at 24 frames per sec by making each frame from the original last for 3 frames (since 8×3 is 24, you then end up with 24 frames per second and "normal" speed). However, even "fixed" this way, it will appear quite jumpy, but at least at regular speed.

Another problem is the quality of the video is usually very low resolution, so it can be hard to make out the images. While a professional can increase the contrast and sharpen the image, there is always a risk of creating images that are not there and making the video entirely inadmissible.

In a recent case, we were hired by the plaintiff attorney who represented a family who lost the husband in a traffic accident while he was driving his motorcycle. The defendant's employer produced a surveillance video that showed the vehicles right before the incident, but the viewer could not see the impact itself. The plaintiff attorney asked us to create a 3D animation to show the impact.

Knowing that this video would be the key piece of evidence for the case, we started by creating a diagram from Google Earth of the scene that displayed the police data. The diagram was entirely to scale and accurate. We then used this diagram to create a 3D model environment for an animation showing the impact.



By placing the vehicles in the precise location where they were shown in the actual surveillance video, we could duplicate the speed and movement immediately prior to the incident. We also knew from the police report both vehicles' resting points. With this information, we could then "fill in" the gap of the video to show the movement and impact of the vehicles.

Ultimately we created a video with a four-panel view to allow the viewers to compare the actual surveillance with our 3D animations. When you watch the video below, you'll see how we showed the actual surveillance video in the top left-hand corner, and the precisely timed

3D animations in the other three panels.

Building on the information above, we also put a virtual camera on the 3D model of the motorcycle to show what the incident would have looked like from that vantage point. This viewpoint demonstrates that the motorcycle driver had no time to react and avoid the collision.

These animations are a good example of a cross between the "real evidence" of surveillance video, and demonstrative evidence that helps fill in the gaps. If you'd like more information about anything you have seen in this post, please feel free to contact me.

Morgan Smith is the owner of Cogent Legal, a litigation graphics and trial strategy firm based in the San Francisco Bay Area that develops clear and compelling visual presentations for attorneys to use in mediation or trial. Services include animations, 2D and 3D graphics, medical illustrations, PowerPoint or Keynote presentations, interactive timelines, videos, strategic consulting and trial support. Cogent Legal integrates the legal expertise of a successful trial attorney with the creative and technical talent of a design firm.