Mediating the contested liability wrongful death case: Inform and persuade

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The decedent was walking in a marked crosswalk near her home to catch a bus to a nearby community pool. Even at 79 years old, she continued to swim nearly every day and remained active in mind and body.

When she had almost gotten to the adjacent curb, she was struck and killed instantly by a commercial truck. She was survived by her 84-year-old husband and two adult daughters, ages 55 and 44.

In an unusual departure from the typical contested liability case, the defendant expressed a willingness to engage in an early pre-litigation settlement effort. Their counsel was completely forthcoming in providing requested documents and vehicle data. The defendant's approach seemed motivated in part by a sincere desire to minimize the emotional toll of litigation on the family members.

The case presented a number of challenges.

First, the police report concluded that the pedestrian was completely at fault and there was nothing the truck driver could have done to prevent the incident.

This was supported by a truck mounted video with a split screen showing the approaching pedestrian and the driver's reaction. It also recorded speed and braking data. While this was a significant piece of evidence in the case, the video failed to convey the various "what if" scenarios that were critical to determine if this was a preventable incident.

The street is a major arterial with a posted 40 mph speed limit and significant truck traffic. In the video, Ms. Roe can be seen entering the crosswalk at 5 seconds before impact. Walking quickly, she crossed two of the three southbound lanes when she was hit in the middle of lane three, just before reaching a point of safety. Wearing a rain jacket with the hood pulled up, it is not clear whether she looked for oncoming traffic after entering the crosswalk. The GPS data showed the truck driver's speed was approximately 35 mph as he approached the intersection, i.e., *below* the posted speed limit.

Notwithstanding the defendant's interest in early mediation, we knew there would have to be a credible response to the investigating officer's opinions so we hired an accident reconstruction expert to review the evidence and determine if the driver could have avoided this accident.

ACCIDENT RECONSTRUCTIONIST PERSPECTIVE

In this accident, the first piece of evidence we received was video footage from two cameras mounted on the truck. One of the cameras looked forward onto the roadway, and the other looked into the occupant compartment and showed the driver. The video footage also contained data including the truck's longitudinal (i.e., forward-backward) acceleration and lateral (i.e., side-to-side) acceleration, both of which were updated every quarter second, and GPS-determined speed, which was updated every second. A total of 12 seconds of data (9 seconds before impact, and 3 seconds after impact) were captured and provided.

Vehicle speed

The first step of the reconstruction was to analyze the information in the video footage and to put that information into a quantitative form that could be understood in terms of vehicle speed, perception-reaction time, braking rate and stopping distance. This was done even before the police report had been released.

To analyze the acceleration data, the truck position at rest was taken as a

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reference point. From this zero-velocity point, the longitudinal and lateral accelerations were time-integrated to obtain an estimate of vehicle speed every quarter-second in the seconds leading up to the truck coming to a stop. As soon as this analysis was completed it was apparent that there was conflicting data: The speed calculated using the acceleration data did not match and was significantly higher than the GPS-determined speed on the video.

To determine which speed value was correct, a site inspection was performed to obtain dimensional information, i.e., distances between landmarks visible on the video footage and aerial photographs of the accident location. The video footage was used in conjunction with aerial photographs of the scene, and dimensional data from the site inspection to identify specific locations that the truck was passing at various points in time on the video. By analyzing the time-speed-distance relationships for the truck on the video, estimates of truck speed were obtained which clearly demonstrated that the GPS estimates of truck speed were more correct, and that the acceleration data was not quantitatively accurate. In other words, the truck was accelerating and decelerating at the times shown on the video, but not at the levels that the video was indicating. Subsequent review of the Engine Control Module (ECM) or "black box" data further confirmed the GPS speed of 35 mph was accurate.

The vehicle speed obtained from the ECM in conjunction with the video analysis and GPS data was sufficient to identify the time of impact to within a sub-second accuracy (i.e., the time of impact was known to within less than one second).

Perception Reaction Time
The investigating officer had contacted the trucking company and obtained additional and clearer video footage than the original video file showing the pedestrian was visible even earlier than previously thought. Despite noting that the pedestrian may have been visible to the truck driver for a full five seconds, the officer concluded that the pedestrian had violated the truck's right of way because the truck driver did not have enough time to come *to a complete stop* before reaching the intersection. This rationale was overly
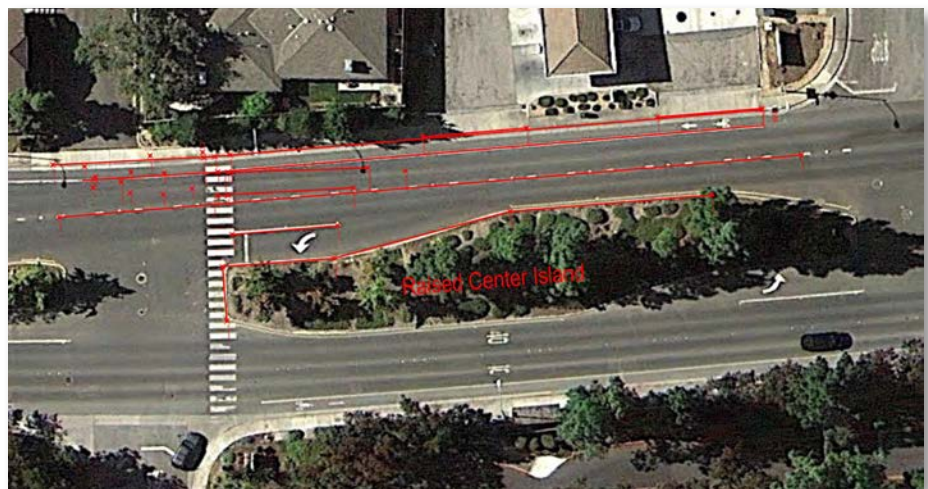
Aerial view of the accident location
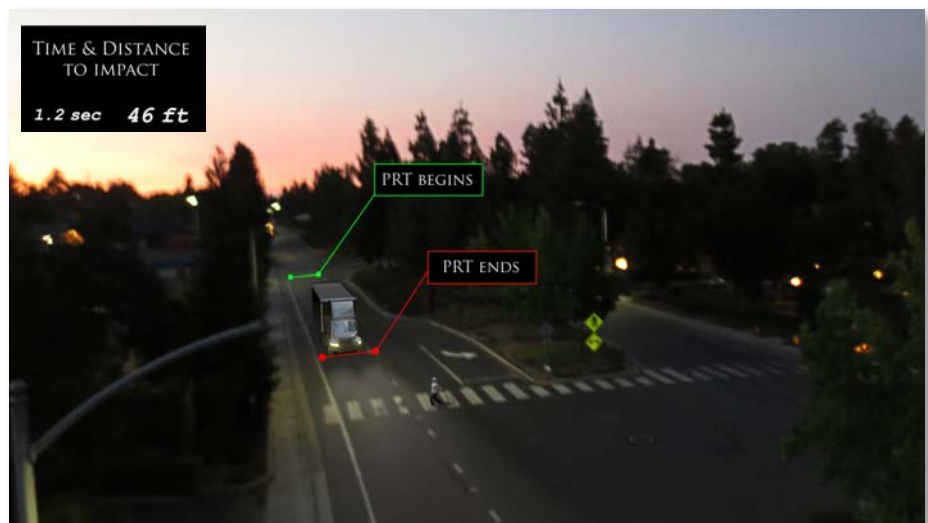
Street view of the accident location

simplistic as many everyday driving situations require drivers to make speed adjustments to avoid accidents, and the very large majority of these adjustments do not require the vehicle to come to a stop but instead make small changes in speed or heading (by steering).

All of the data was then compiled to demonstrate how the driver did not need to come to a complete stop to avoid the accident but could have easily avoided the accident with a typical or even a delayed perception-reaction time for an alert driver.

Braking and Stopping Analysis
Calculations were then done to determine braking rates for the truck which revealed that the truck was braking at the lowest end of the typical range of emergency braking levels for heavy trucks; significantly lower than the deceleration shown in the video

footage and the level used by the police officer in his analysis. The truck's braking rate was at a level lower than what the police officer and the truck company had separately defined as "normal" for emergency braking. From this data and skid mark analysis, accurate stopping distances were determined.

The video footage, the GPS data, the ECM data, the dimensions obtained from site inspections, and theoretical calculations were all used to create scaled scene diagrams placing the truck and pedestrian at various points in time leading up to the impact and points of rest. The results from the analysis for when braking started, for where the impact occurred on the roadway, and where the truck came to a stop were completely consistent with the physical evidence of skid marks, and photographs of the truck's point of rest.

3 Dimensional Presentation

The final step was to present these results using three-dimensional animation. The time-speed-distance information for both the truck and the pedestrian were provided to the animator. In this way, the movement of both the truck and pedestrian in the animation were completely consistent with the mathematical calculations and analyses that had been performed. The analyses and animations were presented at the mediation to the defense counsel and company representatives.

Attorney's Comment

In this case, it was very helpful to have the accident reconstructionist personally present his findings at the mediation, incorporating the three-dimensional animated "what if" scenarios prepared by the forensic animator into his presentation.

FORENSIC ANIMATOR'S PERSPECTIVE

Advancements in video technology have enabled consumers to have access to cheap, reliable video cameras, making it more and more common to have accidents captured on video. At first glance, it may seem that video of the incident would make need of a computer animation of the event superfluous. However when you examine the role of computer animation in mediation or trial, it becomes clear that video evidence only tells a small portion of the

> In preparing a wrongful death case for early mediation, there is no substitute for presenting a fully worked up case.

story. While video footage of the incident, in effect, turns the jury into witnesses, it doesn't necessarily educate the jury on the case facts as you see them. Computer animation allows you to not only show the incident from better vantage points than the captured video, but also educates the jury to the true science behind why the incident occurred, and if necessary, illustrate how the incident could have been avoided.

The first step in any successful forensic animation is to work backwards from the finish line to the starting line. To do that,

we first determine what facts are important for the trier of fact to understand at the end of the presentation, then create an action plan that successfully achieves these goals. In this case, the facts that were discovered by the accident reconstructionist that needed to be illustrated were as follows:

1. The crosswalk, where the incident occurred, was well labeled and properly lit by overhead street lights.
2. The driver was familiar with the crosswalk location and the locations of the senior citizen living center next door where the decedent lived.
3. The pedestrian was visible for 5 seconds before the impact occurred with the delivery truck.
4. The driver took 3.75 seconds to perceive and react to the pedestrian in the crosswalk, longer than the standard 1.5 seconds taken by the typical adult driver.
5. The driver could have taken up to 3.15 seconds to perceive and react to the pedestrian and still have prevented the accident.
6. The facial reactions of the driver in the video suggested that Smith system safety protocols had not been observed.

Working backwards from these facts we realized that three separate presentations would be required: Location, Incident, and "What If"? The Location presentation used aerial images coupled with ground photographs to illustrate that street signs, as well as signs painted on the road itself, warned traffic of the upcoming crosswalk. Using basic 2D graphics, we also demonstrated that the driver was aware of the proximity of the senior citizen complex which was a regular stop on his delivery route.

For the Incident presentation, we created a computer animation of the incident from the driver and pedestrian perspectives. With the access to drone technology, we took photos of the incident area from the air and ground which formed the background of the computer animation. Measurements collected by law enforcement at the scene gave us the data needed to create an accurate 3D model of the delivery truck while the pedestrian was modeled from basic information from the police report. Working closely with the accident reconstructionist, we animated the movement of the delivery truck traveling down the street and pedestrian walking across the crosswalk, ensuring that the

end result was an accurate representation of the reconstructionist's opinion.

Animating the event in and of itself doesn't educate the audience as to why the incident occurred, so we created a dynamic presentation that encompassed animation, captured video, photographs and highlighted text to tell the complete story of why this event occurred.

The final presentation, the "What If" is often the most important educational tool we have to demonstrate the true case facts to the audience. Although the capture video may illustrate what happened, it can't demonstrate what could have happened if some of the case facts were different. In this case, we were able to use the computer model to demonstrate that this incident could have been prevented if the driver had simply followed his safety protocols to perceive and react to pedestrians in a timely manner.

These three presentations together create an effective, dynamic and educational tool to allow the audience to understand the case facts in a manner that simply showing the captured video would not have achieved.

Attorney Comment

In addition to addressing the liability issues in the case, we were also faced with the challenge of telling a compelling story about Ms. Roe and her family that would resonate with an audience of trucking company representatives.

This also meant conveying the significance of her loss to her 84-year-old husband, who was hearing impaired and spoke limited English.

Getting to know the family, it became clear that Ms. Roe was an extraordinary person. She had grown up in communist China and attended university where she met her husband in the 1950s. She taught classical Western music at a prestigious middle school in China and her husband was a respected linguistics professor.

During the cultural revolution, Western music was banned and the decedent risked persecution when she reintroduced her Western music curriculum before it was considered safe to do so.

The daughters had photographs of their parents as young university students in Shanghai, the family growing up in China as well as pictures of her parents traveling after they moved to the United States in

the 1990s. There were also pictures and even video taken of their mother dancing and teaching piano right up until her death.

The daughters began to receive condolences from around the world from former middle school students who were now middle aged and in many cases highly successful in their chosen fields. Letters and video tributes from these former students began to pour in, praising their "beloved teacher" whose music classes had given them a life-long appreciation for Western music and opened their minds to the wider world.

By choosing pre litigation mediation, the defendants would not be in a position to access the plaintiffs' credibility and demeanor, so we decided that a video documentary was the best way to capture their loss. The finished product was a 15-minute documentary-style narrated video prepared for mediation.

PRODUCER'S PERSPECTIVE

As producers of video documentaries, we begin by gathering information for a story which is then scripted. Next, the actual production takes place which includes a video shoot of family members. In post production, the video is edited for use at the mediation.

In this case, the video had to tell a story that spanned 79 years capturing the life of a remarkable woman, whose loss was felt not only by her immediate family but by a wider community of friends and former students. It had to go into detail about the day of the accident and the aftermath – and all this had to be compressed into a 15 minute documentary. But with video, it is possible to communicate all of these things in a short amount of time as each image seen and each word heard conveys far more information and persuasive impact than words on paper or through pictures alone.

A central theme of the video was Ms. Roe's love of music and the opening scene shows her grandson playing the piano, as the narrator begins to describe her life.

Her life revolved around teaching, first to students at a music academy in China following the cultural revolution when Western classical music was banned, all the way to her last year of life teaching children free of charge in a community center. It was clear that she had inspired

Family photos tell the story of her love of music and active lifestyle

and instilled an appreciation of music not only in her own family but in literally hundreds of students over the years. These students were now successful business people, lawyers and other professionals throughout the world. The stories they told on videos posted on a web page dedicated to their former teacher were incorporated in the documentary.

When we began to interview the family, they all spoke of her zest for life and excellent health. Her daughters thought they would celebrate many more holidays together and her grandchildren thought she would be at their graduations, weddings, and even meet her great-grandchildren.

We realized that these sentiments could easily be discounted as wishful thinking by a grieving family. After all, she was 79 years old. But then we were provided with home movies showing a spirited woman in her 70s dancing, singing and teaching piano to her friends. We saw the silver medal she had recently won in a swimming competition and learned she was going for the gold this year. Her friend recounted their last telephone conversation, when

Ms. Roe had to rush off the phone because she was late for a party. It was clear that this was not a 79-year-old woman nearing the end of her life, but a lively, loving grandmother and music teacher who had many years stolen from her.

Using this material in the video allowed us to show that another 20 years of life was not just a grieving family's desire but a reality.

When the family speaks on camera, you can hear the loss in their voices and see it in their eyes. Ms. Roe was no longer a statistic or case number – you now knew her as a person. You could feel this family's loss.

There was also footage of the accident. A camera in the truck captured the moment Ms. Roe was hit and killed. On its own, this footage was very powerful, but it became even more so when her family narrated the events that led up to the accident and the events that followed. A story began to unfold. Although news footage from the incident was incorporated into the documentary, it was not just an accident you heard about on the 5 o'clock news. The

viewer learned that Ms. Roe was on her way to swim at the YMCA, something she did every morning. That she left a note for her husband saying she'd be back by 9:00 to go to the dentist with him. You hear her daughter's disbelief when the coroner's office called and the pain the family went through when they had to tell their father his beloved wife was gone.

The decedent's family thought she had another 20 years to live. We will never know for sure. But what the documentary does show is that a life was taken too soon. That life had a name, had a family, and had a future that was cut short. Our job as storytellers is to create a compelling life story so that all parties involved can not only see but also feel the impact of this loss of life.

CONCLUSION

The use of early mediation, where there is cooperation and transparency on both sides, can do a great deal to alleviate the emotional pain inherent in wrongful death cases. My clients were grateful that the trucking company took this approach.

That said, in preparing a wrongful death case for early mediation, there is no substitute for presenting a fully worked up case. This includes the use of a documentary style video that can present the family members in a positive light, allowing them to truly be known to the viewer without going through the ordeal of deposition.

When there are serious liability issues, having an accident reconstruction expert present at the mediation with an absolute command of the case, can also be helpful in addressing the issues and concerns of the defendant in real time.

The expert's presentation can be significantly enhanced using the type of animated scenarios described above. ■