

Courtroom Battle

The following story is a true account of one crash reconstructionist's battle in court putting his integrity and The Crash Zone diagram program on trial. Read the story as written in his own words.

Letter to The CAD Zone:

Last week was the IMPEACHMENT of Bob trial. The case was focused on an auto accident and my integrity was challenged to the hilt. LTI and The Cad Zone (The Crash Zone) were both presented in the record as part of the defense proceedings. It was suggested that neither LTI or The Crash Zone were accurate. The opposing attorney took an aerial photograph from a local aerial survey company. They had the aerial photograph blown up to a 1" = 20' scale. They took some of my diagrams and tried to reduce and enlarge them until they came up with a scale transparency of about 1" to 20'. Of course my original was not printed to 1" = 20', it was about 1" = 17.654' or some odd number like that, thus requiring the other side to manipulate my original to get a 1" = 20' scale.

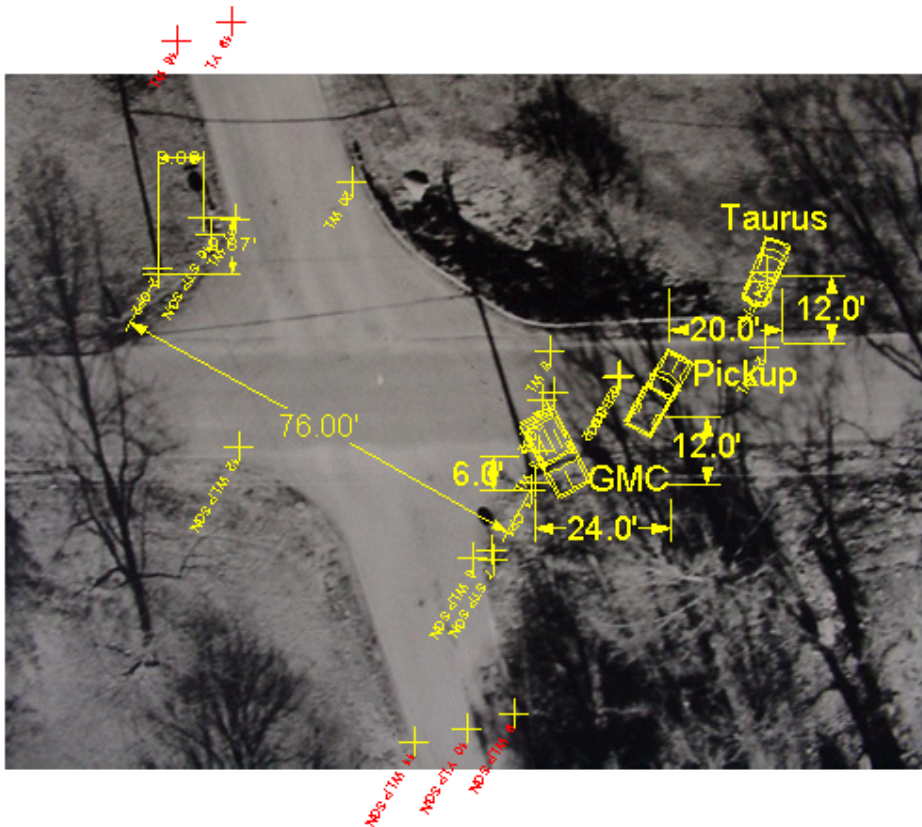
I usually print the current view so that I can demonstrate my point and still have everything I want show on the page. In addition I print to odd scales so the other side will have to do their own measuring. As you might have already guessed, the transparency of my diagram that they came up would not match the aerial photograph. So they had plans of trying to overlay the transparency on the scaled photograph but I stopped that by doing just a bit of homework. I took a photo of the scaled photo and imported it into Crash Zone. Next I used the known points to match the photograph's scale to the original. Next I merged the points from my original LTI file (saved in Crash Zone). The result is attached. It is not perfect, but I isn't too far off. In addition, I printed two diagrams showing the points and the control points to a scale of 1" = 20' directly from the Crash Zone.

During the trial, I let the attorney go through his spill to demonstrate that his transparency didn't fit the aerial photograph. I responded "The transparency you have was manipulated by a reproduction machine of which we have no specifications and no way of knowing exactly how it is changing the diagram. What exact percentage was used to enlarge or reduce and more importantly were the aspect ratios the same as the original. You have no way of knowing what my original measurements were because I never gave them to you. In addition, you used the diagram that shows the utility poles with very large circles and not the exact points that are clearly demonstrated on exhibit 5 to my February 14, 2000 deposition. So you have no way of knowing if the transparency you have is at 1" = 20' or not. In preparation for this trial I have taken the liberty of preparing an exact 1" = 20' scale transparency. The transparency was created with the Crash Zone software and printed from the Crash Zone at a 1" = 20' scale and I have since been back to the accident site to confirm the measurement of the two control points to confirm the diagrams accuracy. As you can clearly see, the transparency prepared by your expert is not to scale. In fact it is much too small, more like a 1" = 25 or 30'. Therefore your scale transparency is not accurate. By laying my transparency over your scaled photograph, you can see that my control points match and the general area of the post accident information is reasonably

close. In addition to the problems associated with your experts scaling of my diagram, there are some other issues that need to be addressed. One of the issues has to do with the aerial photograph itself. Your aerial photograph is not to exact scale due to human limitations which includes, but is not limited to, altitude, pitch and roll of the plane and the accuracy of the measurement between the control points on the ground, plus the accuracy of the reproduction of the photograph itself using the possible eroded measurements of the control points which control the accuracy of the photo enlargement. The control of the accuracy can be off by a foot or so since the width of a pencil lead can represent up to 1' on a 1" = 20' scale photograph. Additionally, the person enlarging the photograph has to be able to define the control points. Since the machine is projecting a negative onto a black board for adjustment, human error is introduced because the control points are at best blurred images due to the enlargement.

Basically all I have told you is that you don't use the photograph to check the accuracy of the diagram, you use the precision measurements made by the laser light source (the accepted method of measurement by the nuclear regulatory commission) and duplicated with extreme mathematical precision by the Cad Zone's diagraming software, to check the accuracy of the photograph and it appears that your photograph is reasonably close as to its scale, maybe off by as much as +/- 1 foot".

After that, the defense council did not discuss the topic further, in fact he strayed as far from the subject as possible.



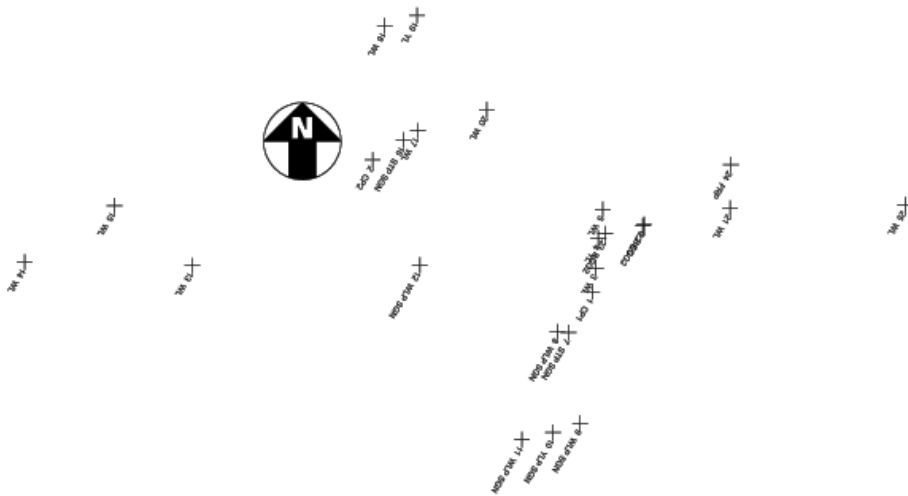
The attorney I was working for took full advantage of the slip by the defense and absolutely just spanked the opposing expert.

I don't know that I will ever have another day in court as great as this one. We won the case and I was not impeached.

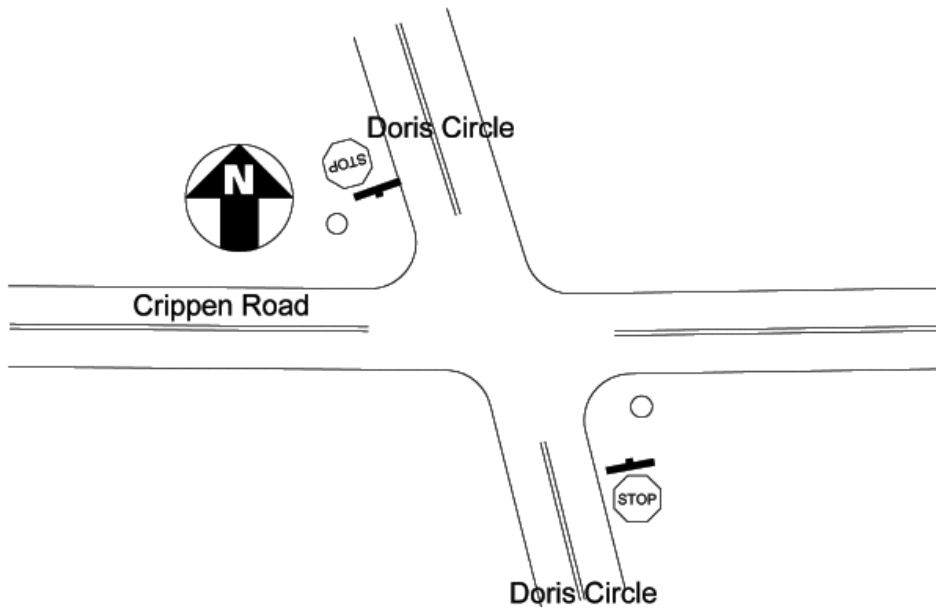
Sorry to ramble, just thought you might enjoy hearing about how your software was used in my defense.

The following diagrams are samples from the 70 page presentation of Crash Zone diagrams and formula sheets that were presented at this trial.

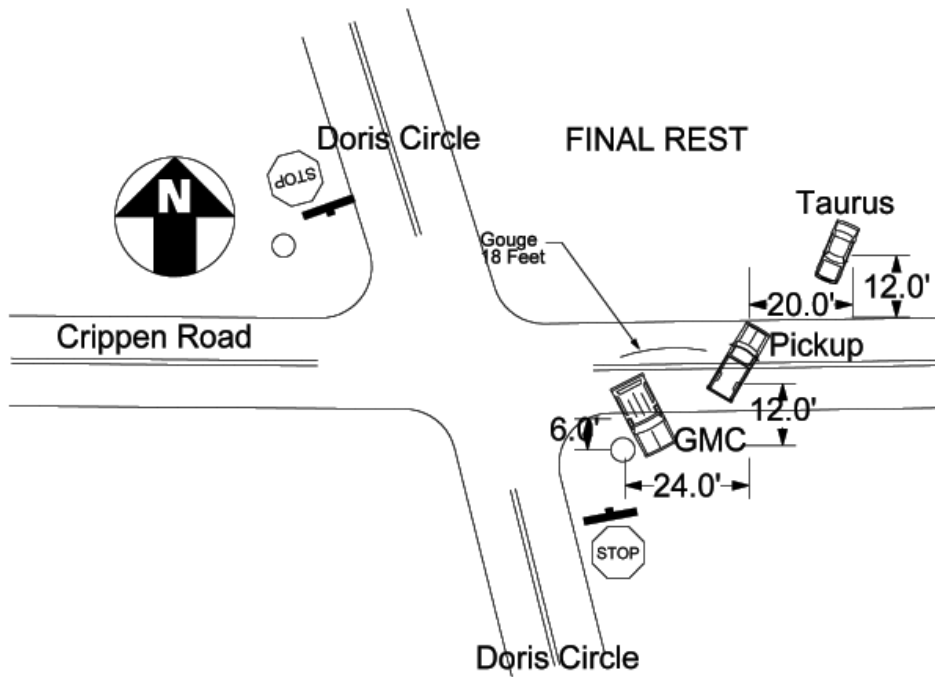
Example 1 - points imported from the LTI system.



Example 2 - the completed intersection based on imported points.

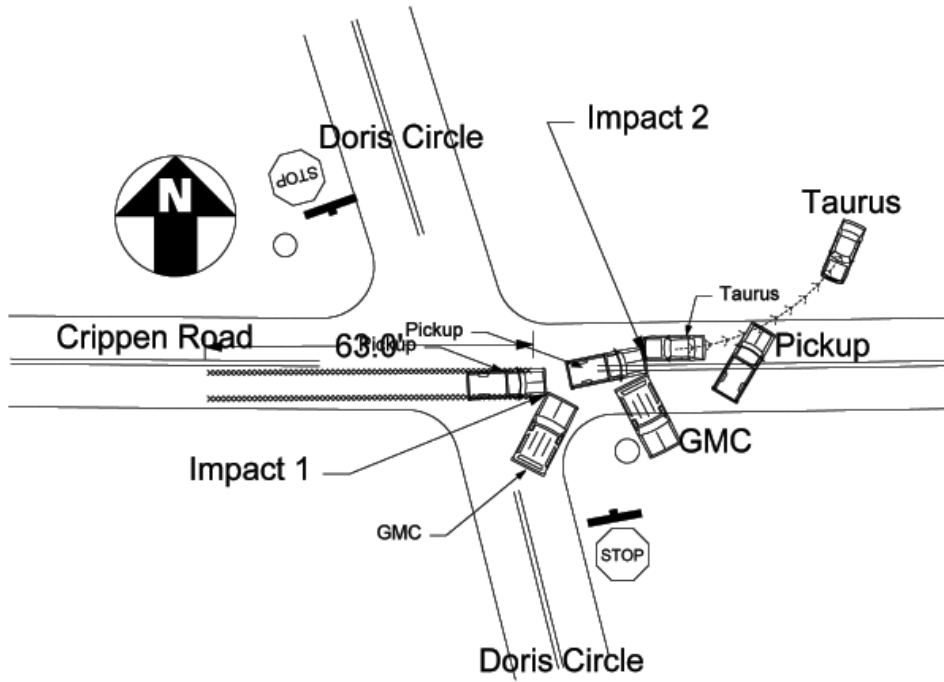


Example 3 - the final rest of the vehicles.

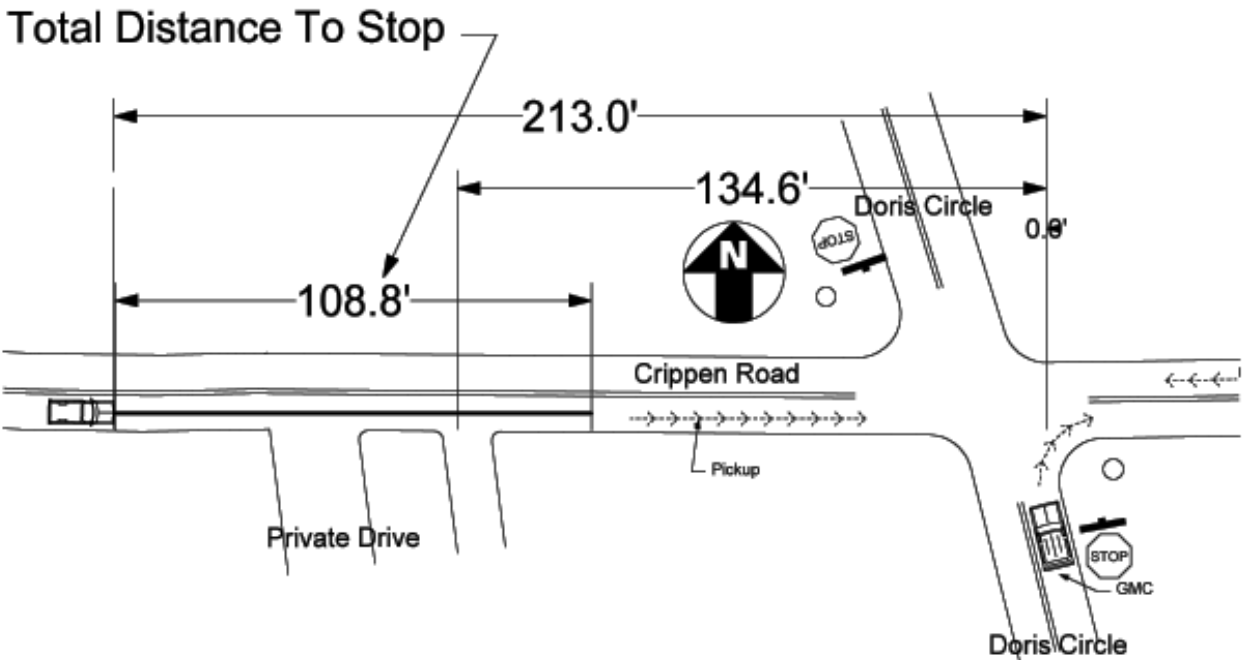


The Crash Zone includes everything needed to produce a professional and complete diagram.

Example 4 - impact points shown.



Example 5 - showing data derived by reconstructionist.



Creating your diagram using real world scale enables you to diagram with complete accuracy and

allows you to take measurements off your diagram off site. An accident reconstructionist can use the data derived from standard formulas to re-create the incident.