



MOTORCYCLIST WOULDN'T HAVE CRASHED IF HE HADN'T BEEN SPEEDING

Contrary to the motorcyclist's testimony, reconstruction of the crash showed that the motorcycle was traveling 20-29 mph over the posted speed limit when the crash occurred. Further analysis found that the motorcyclist could have been traveling up to 7 mph over the speed limit and still avoided the crash by braking alone.

SITUATION

A motorcyclist was riding on a service road past a number of businesses when a pickup truck pulled out of an adjacent driveway, allegedly causing the motorcyclist to brake hard and "lay down" his motorcycle to avoid hitting the truck. The motorcyclist was injured and his motorcycle was significantly damaged.

Practice: Automotive

ESi Consultant

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Services Utilized

- Motorcycle crash analysis and reconstruction
- Photographic analysis and interpretation
- Computer-Aided Drawing (CAD)

About ESI

For over 30 years, ESI has leveraged its multidisciplinary team of engineers, scientists, and professional technical staff to investigate many major accidents and disasters. Our technical expertise, hands-on experience and state-of-the-art facilities, combined with diagnostic, analytical and physical testing capabilities create an ideal environment for quickly identifying and interpreting the facts of a case.

Contact ESI

For more information visit our website or call us toll free at 866.596.3994

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SCOPE OF WORK

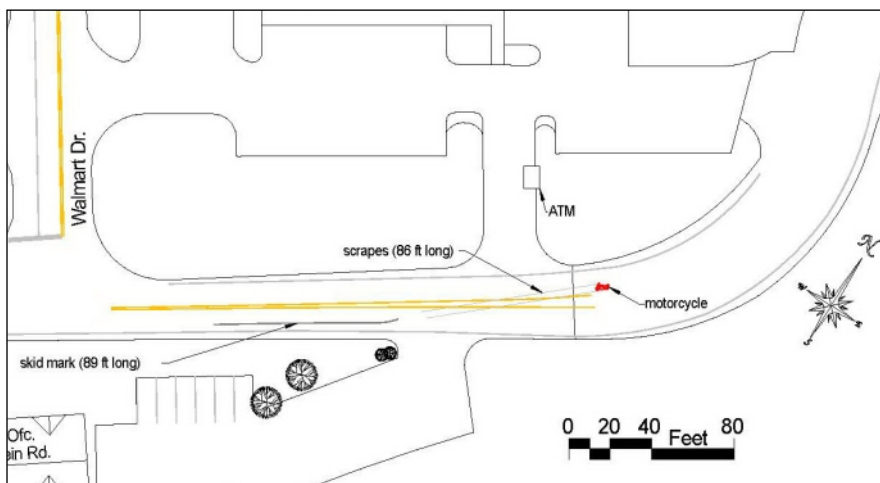
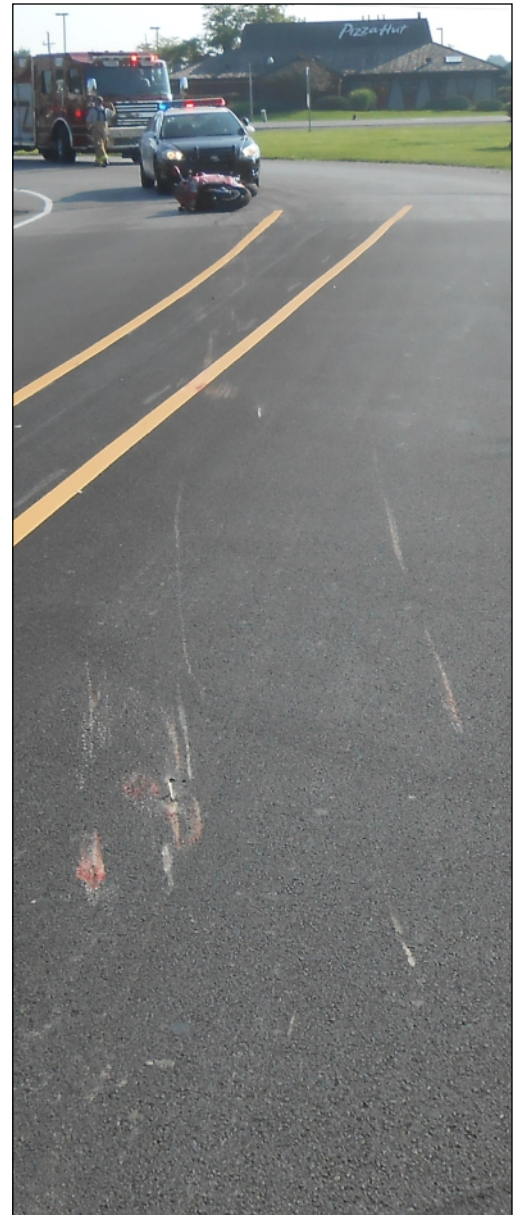
ESi was retained to reconstruct the pre-crash speed of the motorcycle by analyzing tire and scrape marks from the motorcycle that were visible in the police crash scene photographs. The marks were no longer present at the site when ESi was retained, approximately 13 months after the crash.

RESULTS

Reconstruction of the crash determined that the motorcyclist was 180-220 ft away when the pickup truck pulled out of the driveway. Tire marks showed the motorcyclist started braking heavily with both front and rear brakes while still 89 ft from the driveway, and after falling over onto its right side, the motorcycle continued sliding for another 86 ft before coming to rest in the roadway, without hitting the pickup truck.

Calculations based on the distance the motorcycle traveled while braking and sliding on its side showed the motorcycle was traveling at least 50 mph, and depending on the braking ability of the motorcyclist, up to 59 mph before the crash. The posted speed limit was 30 mph. The motorcyclist testified under oath that he had been traveling 25-35 mph at the time of the crash. Additional calculations showed that if the motorcyclist had been traveling at the speed limit he could have braked his motorcycle to a complete stop with at least 67 ft to spare between him and the driveway where the pickup truck pulled out.

Alternatively, the motorcyclist could have been traveling up to 37 mph, started braking where he did, and still braked to a complete stop by the time he reached the driveway where the pickup truck pulled out. By the time the motorcycle would have reached the driveway, the pickup truck would have already been at least 25 feet away. No lawsuit was filed and the matter was subsequently resolved without further involvement by ESi.



Engineering Consulting
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WHY ESi.

Our consultants and technical personnel have significant and unique experience in the analysis of technical issues related to motorcycles, watercraft, ATVs, Side-by-Sides, golf carts, Specialty Purpose Vehicles, as well as other recreational products and activities. This expertise is the result of design experience with major manufacturers, primary roles on standard committees, and research and investigation associated with regulatory activity in the United States and abroad.