

JUSTICE BUSINESS PARTNER REPORT

An Unwitnessed Bicycle Accident



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A phantom vehicle can present unique challenges to the accident reconstructionist.

Typically, the only pieces of evidence available to the reconstructionist are medical records, forensic findings on the bicycle and clothes, evidence from the site, and the cyclist's testimony, which often times is very limited at best due to the potential for severe head injury.

The following case presents an example of an unwitnessed bicycle accident where the objective evidence supported the hypothesis of a phantom vehicle, or hit and run.

The case involved an adult female cyclist who was involved in a bicycle mishap on a lightly traveled rural road with soft shoulders. The cyclist was found semi-conscious and had a memory of going on a ride, but no memory of the incident. Based on this evidence, the police indicated a loss of control as the sole causative factor. However, a com-

prehensive accident reconstruction assessing the injury pattern, forensic evidence on the bicycle and clothes, and the evidence from the site supported the presence of motor vehicle interaction or, in other words, a phantom vehicle or hit-and-run.

Medical records indicate that the cyclist sustained a cervical fracture and numerous abrasions and lacerations to her head, face, and other parts of her body. She also sustained a contusion to her right lower buttock.

The bicycle was in good operating condition. The only significant forensic evidence on the bicycle was found on the seat. The right side of the seat was deformed upwards about the longitudinal axis and there were scuff marks on the right rear of the seat. The cyclist's clothing was absent of any major damage, such as ripping or road abrasions. However, the cycling shorts showed evidence of scuffing and brush marks in the right buttock area.

In accordance with proper scientific inquiry, the reconstructionist considered loss of



consistent with impact from a blunt object. Logically, the side mirror of a motor vehicle was theorized as the plausible blunt object, and a survey of side mirror heights on various vehicles, in conjunction with documented accident dynamics of a cyclist interacting with a side mirror, supported the hypothesis that the cyclist was contacted on the right buttock with a driver's side mirror. This causative factor was further verified by considering that the cyclist would have been more likely to be riding in the smoother center of the roadway as opposed to the rougher edges, and there would then be enough room for a motor vehicle to pass on the right. ■

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control as a causative factor, such as the bicycle being suddenly decelerated by the interaction of the front wheel with an obstacle or pothole, or from excessive front wheel braking. These types of accidents were ruled out, however, based on the absence of any evidence supporting them. Alternatively, a motor vehicle interaction was considered.

The forensic evidence, which entailed the upward deformed seat, abrasions to the right side of the seat, scuff marks on the cycling shorts in the right buttock area, and contusion to the right buttock, is collectively