



National Transportation Safety Board
Washington, DC 20594

Highway Accident Brief

**Fatal Pedestrian Collision with Sport Utility Vehicle
Town of Geneva, Wisconsin, August 16, 2016**

Accident Number:	HWY16SH022
Accident Type:	Fatal pedestrian collision with sport utility vehicle
Location:	State Highway 50 near Chapin Road, Town of Geneva, Wisconsin
Date and Time:	August 16, 2016, about 11:25 p.m. central daylight time
Vehicle:	2001 Ford Expedition
Driver:	44-year-old male
Pedestrian:	54-year-old female
Fatalities:	1

Crash Description

On Tuesday, August 16, 2016, about 11:25 p.m., a 2001 Ford Expedition sport utility vehicle (SUV) was traveling east on State Highway 50 in the Town of Geneva, Walworth County, Wisconsin (figure 1).¹ The SUV was in the right eastbound lane and, according to the 44-year-old male driver, was traveling at the posted speed of 55 mph. At the same time, a 54-year-old female was walking east in the right eastbound lane of the highway, just past Chapin Road. Shortly after passing through the intersection with Chapin Road, the SUV struck the pedestrian. The pedestrian rode onto the vehicle's hood and collided with the right leading edge of the roof, just above the windshield. She also struck the right side of the SUV's roof-mounted luggage rack before falling to the ground behind the moving vehicle. The pedestrian then traveled along the pavement about 175 feet before coming to rest on the solid white line ("fog line") separating the right traffic lane from the right shoulder. The SUV driver applied his brakes, and the vehicle came to rest on the right shoulder of the highway about 350 feet east of the impact area. The pedestrian was fatally injured. The SUV driver was not injured.

¹ The Town of Geneva is in the southeast corner of Wisconsin, near the resort area of Lake Geneva and about 10 miles from the Illinois border.

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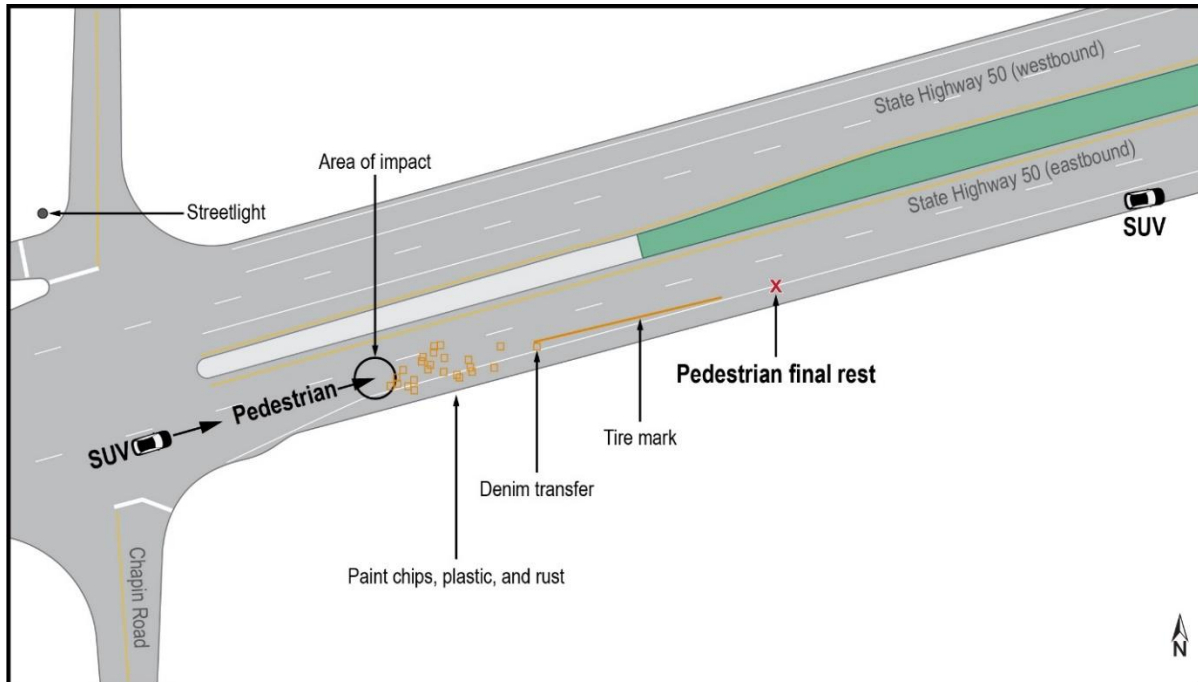


Figure 1. Diagram of crash scene showing path of pedestrian and SUV, area of impact, roadway debris, pedestrian’s final rest position, and final location of SUV.

The temperature at the time of the crash was 66.2°F, winds were coming from the west-southwest at 3.5 mph, and the sky was cloudy. The sun had set at 7:52 p.m., civil twilight had ended at 8:22 p.m., and the moon was 96 percent illuminated.²

Crash Location

The crash occurred on eastbound State Highway 50 about 130 feet east of Chapin Road. In that area, the roadway is an east/west four-lane divided highway, classified as an urban principal arterial (figure 2). The highway has two asphalt travel lanes in each direction, with unrestricted access.³ A median separates the eastbound and westbound lanes. Each eastbound lane is about 12 feet wide, with the lanes separated by 4-inch-wide broken white lines. The paved shoulder beside the right side of the eastbound travel lanes is about 9 feet wide and is separated from the travel lanes by a 4-inch-wide solid white line. There are stop signs for cross-traffic on Chapin Road but no controls in either direction on State Highway 50. The highway’s posted speed limit is 55 mph.

² Weather data from <https://www.wunderground.com/history/>.

³ Unrestricted highway access means that cross-streets can be used to access the roadway, and access is not controlled by ramps or other means. Pedestrians and other nonmotorized traffic are not prohibited from using appropriate portions of the roadway or highway right-of-way.

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Figure 2. Aerial view of State Highway 50 where pedestrian, walking east on roadway, was struck by SUV. Intersection with Chapin Road is shown west of crash site. (Base photo by Google Earth)

The highway has no sidewalks. A single streetlight stands at the northwest corner of the intersection, about 180 feet from the area of impact. A National Transportation Safety Board (NTSB) investigator visited the crash location a week after the crash, at 1:25 a.m. on August 23, 2016, to observe the area under ambient lighting alone. The skies were dark and the moon was 31.1° above the horizon, as on the night of the crash. Less of the moon's surface was illuminated (71 percent), meaning that the surroundings were darker. Nevertheless, the investigator could clearly discern the grass shoulder, paved shoulder, travel lanes, and median.

The Wisconsin Department of Transportation provided fatal crash history data for the 5 years preceding the crash for 0.5 mile on State Highway 50 in each direction from Chapin Road. Between August 16, 2011, and August 16, 2016, three collisions were reported, not counting the crash that is the focus of this investigation. All three of the collisions were single-vehicle crashes that were attributed either to inclement weather or to a collision with wildlife. None of the collisions had any reported injuries, and none involved pedestrians.

Crash Scene

At 10:52 on the night of the crash, officers from the Town of Geneva Police Department were dispatched to a hotel and golf resort on State Highway 50, where a husband and wife were arguing in the parking lot. Witnesses reported that before the officers arrived, the woman left and walked east, barefoot, across the hotel's front lawn. While one officer talked to the hotel staff and the husband involved in the argument, two other officers searched the surrounding area, on foot and in their squad cars. Unable to locate the pedestrian, they returned to the road in front of the hotel.

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Shortly afterward, a witness arrived to tell the officers that a person had been struck by a car and was lying in the roadway east of the hotel. Officers followed the witness to the crash scene, which was about 0.8 mile from the hotel. The officers found a female pedestrian, who was later identified as the wife involved in the argument at the hotel, lying across the fog line on eastbound State Highway 50.⁴ The officers reported that a maroon SUV with extensive front-end damage was stopped east of the pedestrian. The officers requested that the Wisconsin State Patrol's Technical Reconstruction Unit (WSP-TRU) respond to the scene to assist with the investigation.

At the scene, WSP-TRU troopers observed numerous small pieces of maroon vehicle paint on the roadway that appeared to match the color of the striking vehicle, as well as a few pieces of gray plastic and flakes of rust. The location of the debris and tire markings was consistent with the impact occurring in the right travel lane. The debris was concentrated in the right eastbound lane of the highway, and troopers found a single tire mark in the right travel lane at the east end of the debris field. Near the beginning of the tire mark, they found a short area of dark blue denim fabric on the pavement. The troopers mapped the location of each piece of debris using total station survey equipment.⁵ They also mapped the final rest positions of the pedestrian and the striking vehicle and the location of other evidence on the roadway.

Pedestrian

The pedestrian lived in Chicago. According to an interview with her family, she and her husband had traveled to the Wisconsin resort for an annual golf outing. They arrived between 6 and 7 p.m. on August 16. They ate dinner at a restaurant near the hotel, where the pedestrian's drinking was described by her husband as "social." He told the police that she had consumed "three drinks and a shot" at the restaurant. Her husband described his wife as "being happy" but not intoxicated. He said they had a nonphysical argument about unspecified things on her smartphone, during which he broke the phone. The husband then packed the car to go back to Chicago, but the pedestrian was not willing to get in the car.

When the pedestrian left the hotel and walked along the highway at night, she was wearing a white-and-black patterned blouse and dark blue jeans. According to family members, the pedestrian was in good health, had no significant medical history, and was not taking any medication. Her family also said that she was not suicidal and had never mentioned or attempted harming herself in the past. Family members commented that she was expecting her first grandchild soon, and that she was looking forward to that event.

The pedestrian was pronounced dead at the scene by the Walworth County medical examiner's office. The pedestrian's height was recorded as 5 feet 2 inches and her weight as

⁴ After she left the hotel, which was north of the highway, the pedestrian would have had to cross all lanes of the highway to reach the right eastbound lane.

⁵ *Total stations* are electronic/optical instruments used in surveying and building construction.

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151 pounds.⁶ The autopsy report stated that the pedestrian's injuries included bilateral posterior rib fractures, a complete transection of the spinal cord, and other fractures, lacerations, and abrasions. The report listed the cause of death as multiple injuries. Toxicological results showed that the pedestrian had a blood alcohol concentration (BAC) of 0.232.⁷ She tested negative for other drugs.

Driver

The driver of the striking vehicle held a class D (noncommercial) driver's license issued by Wisconsin. The driver worked as a second-shift (3 p.m. to 11 p.m.) machinist in Delavan, Wisconsin (about 13 miles west of the crash site). The driver stated in an interview that he had been prescribed hydrocodone for severe back pain, and that he took one pill before bed the evening of August 15 and one pill the morning of August 16 before work.⁸ The driver stated that he also used marijuana to manage back pain. He stated that he took "two or three hits" from his "one-hitter" the morning of August 16 before work. The driver said he was not sure if he had taken another hydrocodone pill during his shift but that there was a good chance that he had. He stated that he was alert and had two to three cups of coffee during his shift and had smoked cigarettes on his breaks. The driver also stated that hydrocodone does not make him drowsy, but rather has the opposite effect on him, which he described as being similar to that of coffee.

The driver stated that he left work shortly after 11 p.m. and that he was traveling in the right lane at approximately the speed limit of 55 mph using his low-beam headlights. He stated that he probably had one cigarette after work but finished it before the crash. The driver stated that he saw movement to his right and that the pedestrian seemed to "just appear." He said that just before the impact he saw only the pedestrian's hair, not her face. The driver stated that the impact happened quickly, and that he saw a person on the hood who then went up and over the top of his vehicle. The driver stated that he stopped his vehicle, got out, and ran back to the pedestrian lying on the roadway.

A WSP-TRU trooper examined the driver's cell phone (call log and message history) after the crash and noted no activity. The driver stated that his phone was inside the zipped front pocket of his backpack, which was on the front passenger seat of the SUV at the time of the collision.

⁶ Pedestrian characteristics, such as height and weight, were documented to aid crash reconstruction and evaluate pedestrian injuries.

⁷ Research has shown that even low levels of alcohol can affect cognitive performance. At BACs above 0.10, individuals suffer impaired motor coordination, vision, hearing, and balance. Their reaction times are slower, and judgment and perception are impaired (Linda Dultz and Spiros Frangos, "The Impact of Alcohol in Pedestrian Trauma," *Journal of Injury, Infection, Trauma and Critical Care* [2012]: 1252–1257).

⁸ Hydrocodone, a schedule II drug, is an opioid analgesic synthesized from codeine.

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Police toxicology results from the driver's voluntary blood test showed evidence of recent marijuana use as well as the presence of hydrocodone in his system.⁹ The driver tested negative for alcohol. Evidence marks and information from witness interviews support that the driver had control of his vehicle and was operating inside the traffic lane at the time of impact. Police analyzed average perception–response time based on parameters specific to this nighttime highway collision for a nonimpaired driver.¹⁰ Given the time needed to perceive and respond to the pedestrian being directly in front of the vehicle, the analysis did not indicate an opportunity for evasive maneuvering, such as braking or steering, to avoid striking the pedestrian. NTSB investigators reviewed the analysis of the reaction time available to the driver and agreed that he had no opportunity to avoid the pedestrian.

Vehicle

The 2001 Ford Expedition four-door SUV was examined at the Town of Geneva Police Department's impound facility. The SUV's air bags for the driver and front passenger did not deploy in the collision. Contact damage to the front of the SUV was concentrated in an area slightly offset toward the passenger side from the vehicle's centerline (figure 3). Contact damage was noted on the vehicle's front bumper, grille, hood, and roof. The most significant damage was to the hood. The driver stated that the vehicle had no mechanical problems before the crash.



Figure 3. Front of SUV showing contact damage to hood, grille, and bumper.

⁹ The toxicology results showed the presence of three metabolites of marijuana—19 nanograms per milliliter (ng/ml) of delta-9-tetrahydrocannabinol (THC), 8.2 ng/ml of 11-hydroxy-THC, 180 ng/ml of carboxy-THC—and 24 ng/ml of hydrocodone. Hydrocodone can cause a variety of potentially impairing effects, such as slowed reaction time, drowsiness, and poor performance. Marijuana can cause impairment to short-term memory, judgment, and motor skills. Impairment levels for both drugs, separately or in combination, have not been established because they vary by individual, dosage, and history of use.

¹⁰ See the police reconstruction report for this crash, available in the public docket, as explained below.

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Applicable Traffic Laws

Wisconsin regulates the movement of pedestrians walking on or along public roadways. According to chapter 346 (“Rules of the Road”) of the Wisconsin statutes:

Any pedestrian traveling along and upon a highway other than upon a sidewalk shall travel on and along the left side of the highway and upon meeting a vehicle shall, if practicable, move to the extreme outer limit of the traveled portion of the highway (346.28[1]).

Wisconsin statute 346.63(1)(am) prohibits anyone from driving or operating a motor vehicle while “the person has a detectable amount of a restricted controlled substance in his or her blood.” The Town of Geneva police determined that the driver was violating that statute and issued a citation to him.

Witness

Investigators interviewed a witness who was driving behind the striking vehicle at the time of the collision. The witness stated he was a coworker of the SUV driver and had been behind him since they both left work at 11:05 p.m. The witness stated that shortly before the crash, he and the SUV passed two squad cars parked on the westbound side of State Highway 50 near a hotel, with their emergency lights on.

The witness stated that just before the crash, the SUV driver was traveling eastbound in the right lane of State Highway 50 at approximately 55 mph. The witness said that at the time of the crash, he was about 300 feet behind the SUV, in the left lane. The witness stated that he saw the SUV’s brakelights turn on and wondered if it had hit a deer. The witness said that he then saw something fall from the roof of the SUV and hit the ground behind the vehicle. After stopping and learning that a pedestrian had been struck, the witness then turned around and traveled back to the hotel where he had seen the squad cars and reported the crash to one of the officers.

Probable Cause

The National Transportation Safety Board determines that the probable cause of the crash in the Town of Geneva, Wisconsin, was the pedestrian’s decision to walk in the travel lane with her back to traffic. Contributing to her poor decision-making was impairment from the effects of alcohol intoxication.

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BY THE NATIONAL TRANSPORTATION SAFETY BOARD

ROBERT L. SUMWALT, III
Chairman

EARL F. WEENER
Member

T. BELLA DINH-ZARR
Member

Adopted: August 6, 2018

For more details about this accident, visit the [NTSB public docket](#) and search for NTSB accident ID HWY16SH022. The accident dockets include such information as police reports, photographs, driver and witness statements, data on previous crashes, highway engineering reports, and timing of traffic signals.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties . . . and are not conducted for the purpose of determining the rights or liabilities of any person.” 49 *Code of Federal Regulations*, Section 831.4. Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report. 49 *United States Code*, Section 1154(b).
