



Ohio Bureau of Criminal Identification & Investigation
INVESTIGATIVE REPORT



12/4/2012 SHOOTING INCIDENT RECONSTRUCTION: CHEVROLET MALIBU

Summary

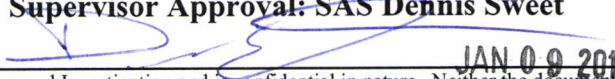
On Tuesday, December 4, 2012, BCI Special Agents Daniel Winterich, Gary Wilgus, George Staley, and Brenda McNeely conducted a shooting incident reconstruction on the Chevrolet Malibu that was related to the officer involved shooting on November 29, 2012 in East Cleveland. The vehicle was photographed, mapped, and firearms related evidence was collected. The examination lasted three days.

Details

From December 4 until December 6, 2012, BCI Special Agent Daniel Winterich conducted a shooting incident reconstruction on the Chevrolet Malibu that was related to the officer involved shooting on November 29, 2012 in East Cleveland. Assisting him were Agents Gary Wilgus, George Staley, and Brenda McNeely. This examination took place at the vehicle investigation garage at the BCI office in Richfield. The vehicle had been towed from the Cuyahoga County Medical Examiner's Office. Personnel from the Medical Examiner's Office had already searched the interior for any firearms or cartridge cases and they did not find any.

The vehicle was a light blue 1979 Chevrolet Malibu bearing Ohio license plates of FSA-3495 and a VIN of 1W19J91485352. Agent Winterich photographed the vehicle as he found it and Agents Staley and McNeely were assigned to map the vehicle utilizing the total station.

Examination of the exterior revealed body damage to the passenger's front end and both rear quarter panels (see Figures 1, 2, 3, and 4). Within the damage to the front fender was white and blue transfer material that was consistent with the decals found on the CPD cruisers. A sample was collected. Rubber transfer material was also found on the driver's side rear bumper near the quarter panel damage.

File Number: CS-18-12-82-1488	File Title: Timothy R. Russell (S) & Malissa A. Williams (S)
Case Agent: Daniel Winterich	Authoring Agent: Daniel Winterich DRW
Date of Report: 12/17/12	Exhibit #: 2
Investigative Activity: Officer Involved Shooting	Supervisor Approval: SAS Dennis Sweet 

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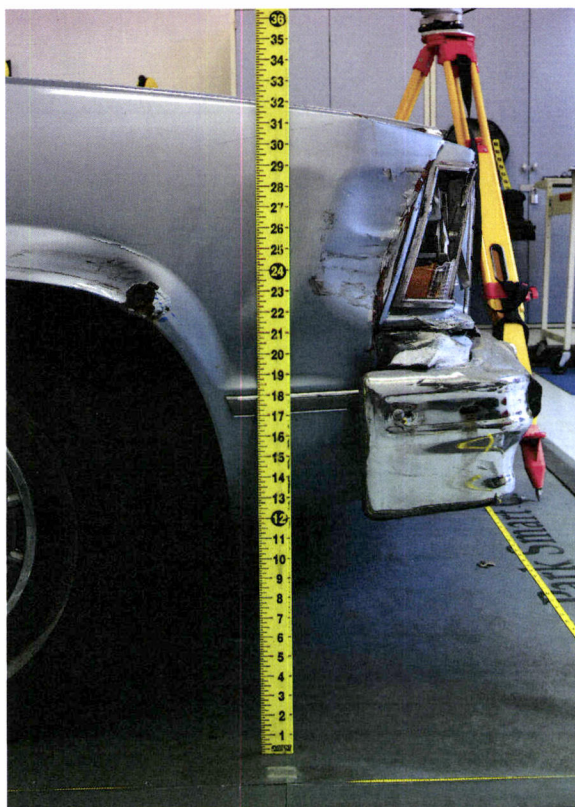


Figure 1 (pass. front fender damage)

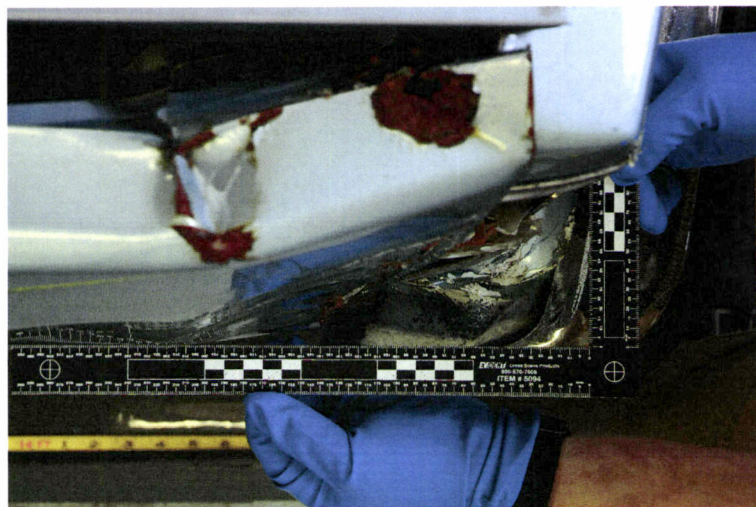


Figure 2 (pass. front fender damage)



Figure 3 (driver's side quarter panel damage)



Figure 4 (pass. side quarter panel damage)

The driver's side front tire was flat. It was eventually filled with air (this occurred after all the trajectories were documented) and this revealed a hole on the sidewall and in the tread. These holes were tested for the presence of copper using Dithiooxamide (DTO) and the results were negative. These holes could still be consistent with bullet holes if the copper jacketing had come off after ricocheting on the ground.

The conditions of the windows were as follows:

- The rear window was partially shattered and had been protectively taped by the Medical Examiner's Office.
- The passenger's side front window was broken out and glass shards were still visible in the periphery of the window frame. Shards were visible in the B-pillar 11" up from the bottom frame of the window. This would indicate that this window was partially raised during the shooting to at least 11" up. The window regulator shelf was located approximately 6" down from the top of the opening. The c-clamp that had been in place on this door at the scene was not attached when it arrived and it was determined that it had been removed by the Medical Examiner's Office. The c-clamp would have prevented the window from being fully closed at the time of the pursuit.
- The passenger's side rear window was partially shattered and had been protectively taped by the Medical Examiner's Office. The glass shards were still intact around the top portion of the window frame which indicates it was fully raised during the shooting. The passenger's side quarter window was still intact.
- The driver's side front window appears to have been open during the shooting. No broken glass was found in the periphery of the window frame and the window regulator shelf was located approximately 12" down from the top of the opening. The window was shattered inside the door by one of the bullets that entered the door panel.
- The driver's side rear window was broken out and glass shards were still intact around the top portion of the window frame which indicates it was fully raised during the shooting. The driver's side quarter window was broken out.

Two overlapping footwear impressions were located on the hood near the passenger's side front end. They were the same tread pattern and were oriented with the toe pointing towards the driver's side windshield. They were photographed and collected utilizing a gelatin lifter.

Two gunshot residue (GSR) kits were used to collect potential GSR from within the interior of the vehicle. Two stubs were collected from the front headliner and two stubs were collected from the rear headliner. An LG cell phone was collected from the driver's side front seat so that it could be forensically analyzed by BCI's Cyber Crimes Unit.

After the exterior was examined, the bullet holes were labeled and mapped. All bullet holes were photographed via macro photography. Each bullet hole or bullet strike was labeled with "BH" followed by a number (e.g. "BH1"). These numbers do not indicate shot sequence but were arbitrarily selected with numbering beginning at the passenger's side front end and proceeding counter-clockwise around the vehicle. A minimum of ninety-two bullet holes were found on the exterior of the vehicle (see Figure 5). An additional five bullet holes were found

within the interior of the vehicle that could be classified as entry holes and these were bullets that most likely traveled through open windows and struck a surface within the interior. Not every bullet hole had two impact points therefore the trajectory could not be accurately determined for every bullet hole using trajectory rods. The trajectory was determined for thirty of the bullet holes. All the holes that were examined except one (BH78E) were fired from outside the vehicle inward. BH78E which was located on the rear window was most likely a shot exiting the interior from a bullet that entered through the windshield.

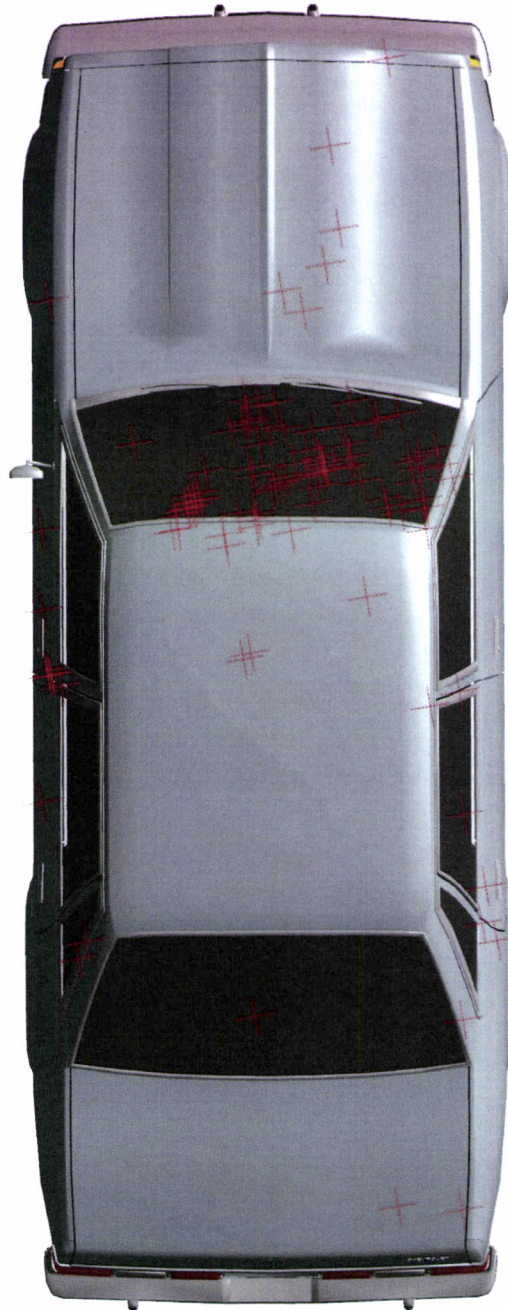


Figure 5 (bullet holes mapped with total station)

Passenger's side front end and hood:

There were eight bullet holes found on the passenger's side front end, hood, and passenger's side A-pillar (see Figure 6). The following data was collected from these holes:

Bullet Hole #	Location	Vertical Impact Angle	Horizontal Impact Angle*	Direction of Travel**
BH1	Passenger's side front end near fog lamp	-15°	106°	Downward, from 1 o'clock to 7, penetrated into engine compartment.
BH2	Passenger's side hood	-3°	112°	Downward, from 1 o'clock to 7, ricochet.
BH3	Passenger's side hood	-10°	114°	Downward, from 1 o'clock to 7, ricochet.
BH4	Passenger's side hood	-9°	115°	Downward, from 1 o'clock to 7, penetrated into engine compartment.
BH5	Passenger's side hood	-10°	117°	Downward, from 1 o'clock to 7, penetrated into engine compartment.
BH6	Passenger's side hood	-10°	114°	Downward, from 1 o'clock to 7, penetrated into engine compartment.
BH7	Passenger's side A-pillar	-21°	115°	Downward, from 2 o'clock to 8, perforated A-pillar into passenger compartment.
BH8	Passenger's side A-pillar	-22°	119°	Downward, from 2 o'clock to 8, penetrates into A-pillar.

*0° is driver's side front end, 180° is passenger's side front end.

**12 o'clock is front of vehicle, 6 o'clock is rear of vehicle.

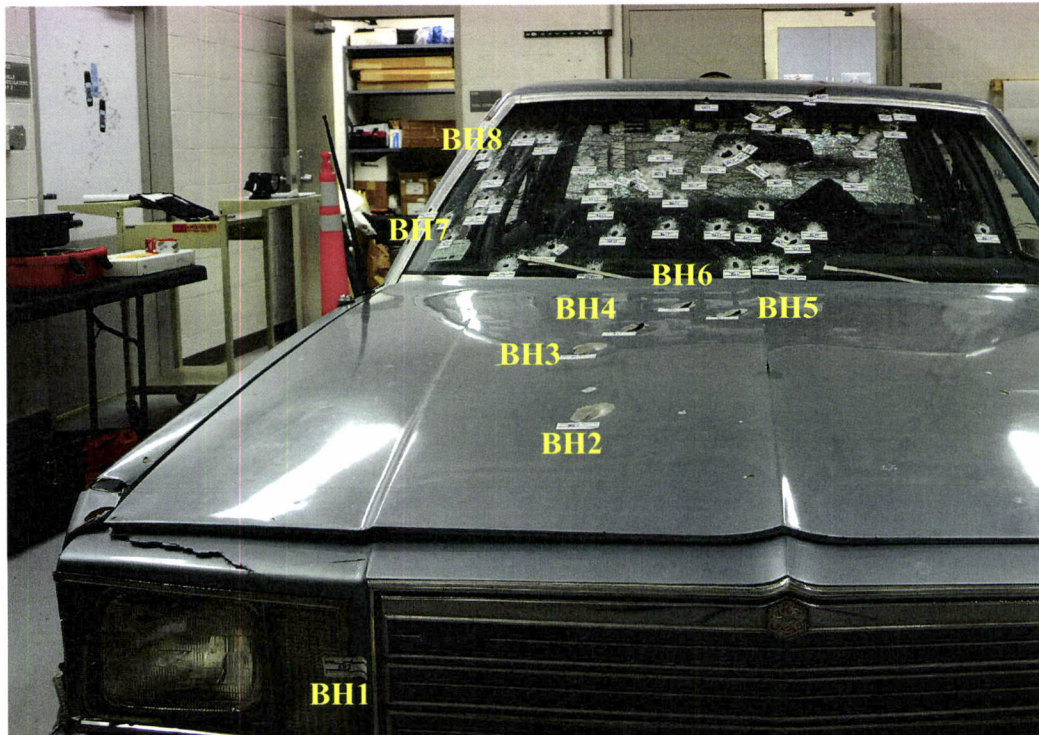


Figure 6 (BHs 1-8)

Windshield:

There were fifty-eight bullet holes in the windshield (see Figure 7). The cone fractures of these holes indicated that they were all fired from the exterior of the vehicle inward. Most of the holes were concentrated on the passenger's side of the windshield. The following data was collected from these holes:

Bullet Hole #	Location	Vertical Impact Angle	Horizontal Impact Angle*	Direction of Travel**
BH9	Passenger's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.
BH10	Passenger's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.
BH11	Passenger's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.
BH12	Passenger's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.
BH13	Passenger's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.
BH14	Passenger's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.

BH15	Passenger's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.
BH16	Passenger's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.
BH17	Passenger's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.
BH18	Passenger's side windshield	-29°	120°	Downward, 1 o'clock to 7, penetrated dashboard.
BH19	Passenger's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.
BH20	Passenger's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.
BH21	Passenger's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.
BH22	Passenger's side windshield	-19°	130°	Downward, 2 o'clock to 8 into passenger compartment.
BH23	Passenger's side windshield	N/A	N/A	12 o'clock to 6 into passenger compartment.
BH24	Passenger's side windshield	-6°	106°	Downward, 1 o'clock to 7, perforated dashboard and then into passenger compartment.
BH25	Passenger's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.
BH26	Passenger's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.
BH27	Passenger's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.
BH28	Passenger's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.
BH29	Passenger's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.
BH30	Passenger's side windshield	N/A	N/A	2 o'clock to 8 into passenger compartment.
BH31	Passenger's side windshield	N/A	N/A	2 o'clock to 8 into passenger compartment.
BH32	Passenger's side windshield	N/A	N/A	2 o'clock to 8 into passenger compartment.
BH33	Passenger's side windshield	N/A	N/A	2 o'clock to 8 into passenger compartment.
BH34	Passenger's side windshield	N/A	N/A	2 o'clock to 8 into passenger compartment.
BH35	Passenger's side windshield	N/A	N/A	2 o'clock to 8 into passenger compartment.
BH36	Passenger's side windshield	N/A	N/A	2 o'clock to 8 into passenger compartment.

BH37	Passenger's side windshield	N/A	N/A	2 o'clock to 8 into passenger compartment.
BH38	Passenger's side windshield	N/A	N/A	2 o'clock to 8 into passenger compartment.
BH39	Passenger's side windshield	-14°	123°	Downward, 2 o'clock to 8, perforated rearview mirror and into passenger compartment.
BH40	Passenger's side windshield	N/A	N/A	12 o'clock to 6 into headliner.
BH41	Passenger's side windshield	-1°	74°	Downward, from 11 o'clock to 5, perforated dashboard and into passenger compartment.
BH42	Passenger's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.
BH43	Passenger's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.
BH44	Passenger's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.
BH45	Passenger's side windshield	N/A	N/A	11 o'clock to 5 into passenger compartment.
BH46	Passenger's side windshield	N/A	N/A	11 o'clock to 5 into passenger compartment.
BH47	Passenger's side windshield	N/A	N/A	11 o'clock to 5 into passenger compartment.
BH48	Driver's side windshield	-4°	120°	Downward, 2 o'clock to 8, penetrated dashboard into instrument panel.
BH49	Driver's side windshield	-14°	112°	Downward, 1 o'clock to 7, penetrated into dashboard.
BH50	Driver's side windshield	N/A	N/A	1 o'clock to 7 into passenger compartment.
BH51	Driver's side windshield	N/A	N/A	11 o'clock to 5 into passenger compartment.
BH52	Driver's side windshield	N/A	N/A	Ricochet off of glass.
BH53	Driver's side windshield	N/A	N/A	11 o'clock to 5 into passenger compartment.
BH54	Driver's side windshield	N/A	N/A	11 o'clock to 5 into passenger compartment.
BH55	Driver's side windshield	N/A	N/A	11 o'clock to 5 into passenger compartment.
BH56	Driver's side windshield	N/A	N/A	Ricochet off of glass.

BH57	Driver's side windshield	N/A	N/A	11 o'clock to 5 into passenger compartment
BH58	Driver's side windshield	N/A	N/A	Ricochet off of glass.
BH59	Driver's side windshield	N/A	N/A	Ricochet off of glass, partial perforation of windshield.
BH60	Driver's side windshield	N/A	N/A	Ricochet off of glass.
BH61	Driver's side windshield	N/A	N/A	12 o'clock to 6 into passenger compartment.
BH62	Driver's side windshield	N/A	N/A	Ricochet off of glass.
BH63	Driver's side windshield	N/A	N/A	Ricochet off of glass.
BH64	Driver's side windshield	0°	85°	12 o'clock to 6, perforated driver's side visor into seat.
BH65	Driver's side windshield	N/A	N/A	12 o'clock to 6 into passenger compartment.
BH66	Driver's side windshield	N/A	N/A	12 o'clock to 6 into passenger compartment.

**0° is driver's side front end, 180° is passenger's side front end.*

***12 o'clock is front of vehicle, 6 o'clock is rear of vehicle.*



Figure 7 (BHs 9-66)

Driver's side:

There were eleven bullet holes along the driver's side of the vehicle (see Figure 8). The following data was collected from these holes:

Bullet Hole #	Location	Vertical Impact Angle	Horizontal Impact Angle*	Direction of Travel**
BH67	Driver's side front fender	N/A	N/A	Ricochet, 12 o'clock to 6.
BH68	Driver's side front door	-7°	16°	11 o'clock to 5, penetrated door frame.
BH69	Driver's side front door	N/A	N/A	11 o'clock to 5, penetrated door frame.
BH70	Driver's side front door	N/A	N/A	11 o'clock to 5, penetrated door frame.
BH71	Driver's side front door	N/A	N/A	11 o'clock to 5, penetrated door frame.
BH72	Driver's side front door	N/A	N/A	11 o'clock to 5, penetrated door frame.
BH73	Driver's side front door	N/A	N/A	Ricochet, 12 o'clock to 6.
BH74	Driver's side B-pillar	N/A	N/A	11 o'clock to 5, perforated B-pillar into passenger compartment.
BH75	Driver's rear door	-3°	155°	Downward, 7 o'clock to 1, penetrated door frame.
BH76	Driver's side C-pillar	N/A	N/A	Ricochet.
BH77	Driver's side C-pillar	N/A	N/A	11 o'clock to 5, penetrated C-pillar.

*0° is driver's side front fender, 180° is driver's side rear fender.

**12 o'clock is front of vehicle, 6 o'clock is rear of vehicle.



Figure 8 (BHs 67-77)

Rear window and trunk:

There were three bullet holes found on the rear window and trunk (see Figure 9). The one bullet hole in the rear window (BH78E) was only partially intact. The cone fractures indicated that this shot traveled from the interior out through the window. This shot most likely came from through the front windshield. The following data was collected from these holes:

Bullet Hole #	Location	Vertical Impact Angle	Horizontal Impact Angle*	Direction of Travel**
BH78E	Rear window	N/A	N/A	Cone fracture located on exterior side of window.
BH79	Passenger's side trunk	-10°	126°	Downward, 5 o'clock to 11, penetrated trunk.
BH80	Passenger's side trunk	-4°	129°	Ricochet, 5 o'clock to 11.

*0° is driver's side rear fender, 180° is passenger's side rear fender.

**12 o'clock is front of vehicle, 6 o'clock is rear of vehicle.

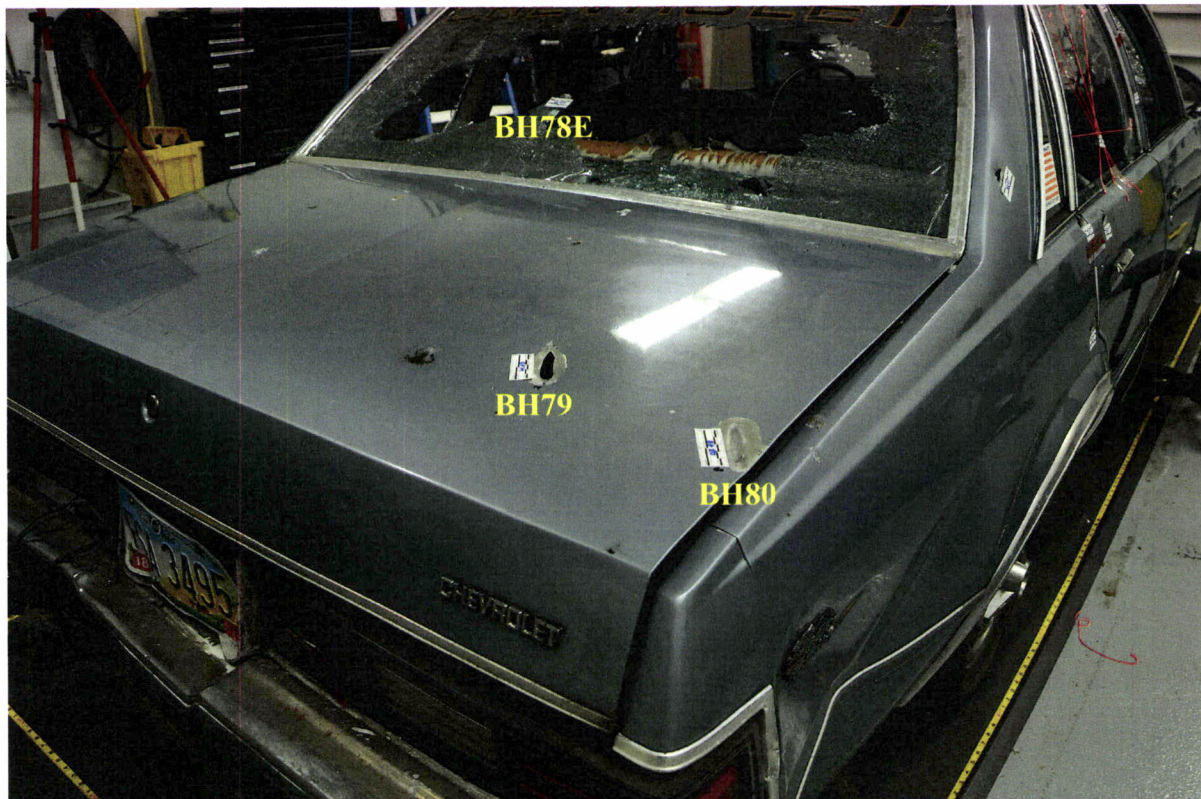


Figure 9 (BHs 78E-80)

Passenger's side:

There were seven bullet holes found on the passenger's side (see Figure 10). The following data was collected from these holes:

Bullet Hole #	Location	Vertical Impact Angle	Horizontal Impact Angle*	Direction of Travel**
BH81	Passenger's side C-pillar	-7°	126°	Downward, 4 o'clock to 10 into passenger compartment.
BH82	Passenger's rear quarter panel	-14°	134°	Downward, 4 o'clock to 10 into tire well.
BH83	Passenger's rear quarter panel	0°	132°	Downward, 4 o'clock to 10, penetrated quarter panel.
BH84	Passenger's rear door	-15°	133°	Downward, 4 o'clock to 10, penetrated door.
BH85	Window of passenger's rear door	N/A	N/A	Into passenger rear compartment.
BH86	Passenger's side B-pillar	-20°	95°	Downward, 3 o'clock to 9, perforated B-pillar into passenger compartment.

BH87	Passenger's side B-pillar	-20°	78°	Downward, 3 o'clock to 9, perforated passenger's B-pillar and seatbelt into passenger compartment.
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*0° is passenger's side front fender, 180° is passenger's side rear fender.

**12 o'clock is front of vehicle, 6 o'clock is rear of vehicle.

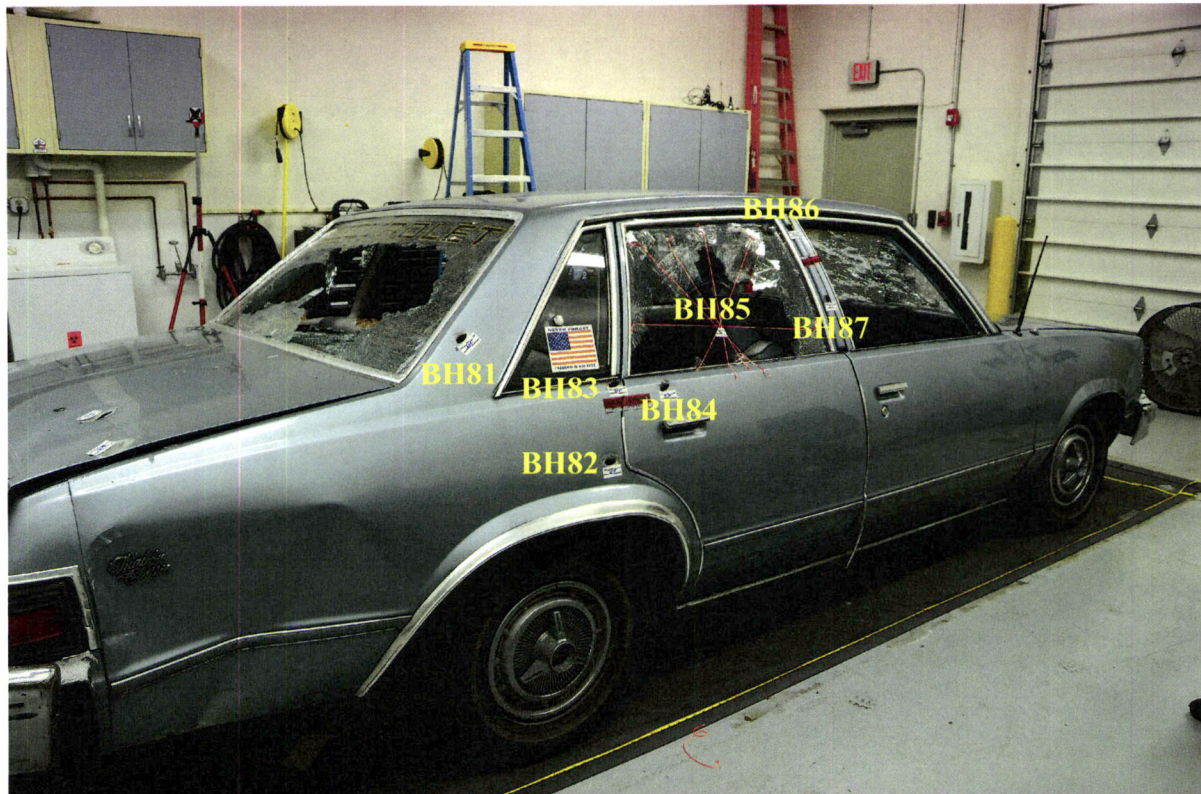


Figure 10 (BHs 81-87)

Roof:

There were five bullet holes on the roof (see Figure 11). The following data was collected from these holes:

Bullet Hole #	Location	Vertical Impact Angle	Horizontal Impact Angle*	Direction of Travel**
BH88	Passenger's side roof	-10°	82°	Downward, 3 o'clock to 9, perforated roof into passenger compartment.
BH89	Driver's side roof	-7°	78°	Ricochet, 2 o'clock to 8.

BH90	Driver's side roof	-1°	59°	Ricochet, 11 o'clock to 5.
BH91	Driver's side roof near top edge of windshield	-10°	102°	Downward, 12 o'clock to 6, penetrated roof into headliner.
BH92	Driver's side roof near top edge of windshield	N/A	N/A	1 o'clock to 7, penetrated roof into headliner.

**0° is driver's side front end, 180° is passenger's side front end.*

***12 o'clock is front of vehicle, 6 o'clock is rear of vehicle.*

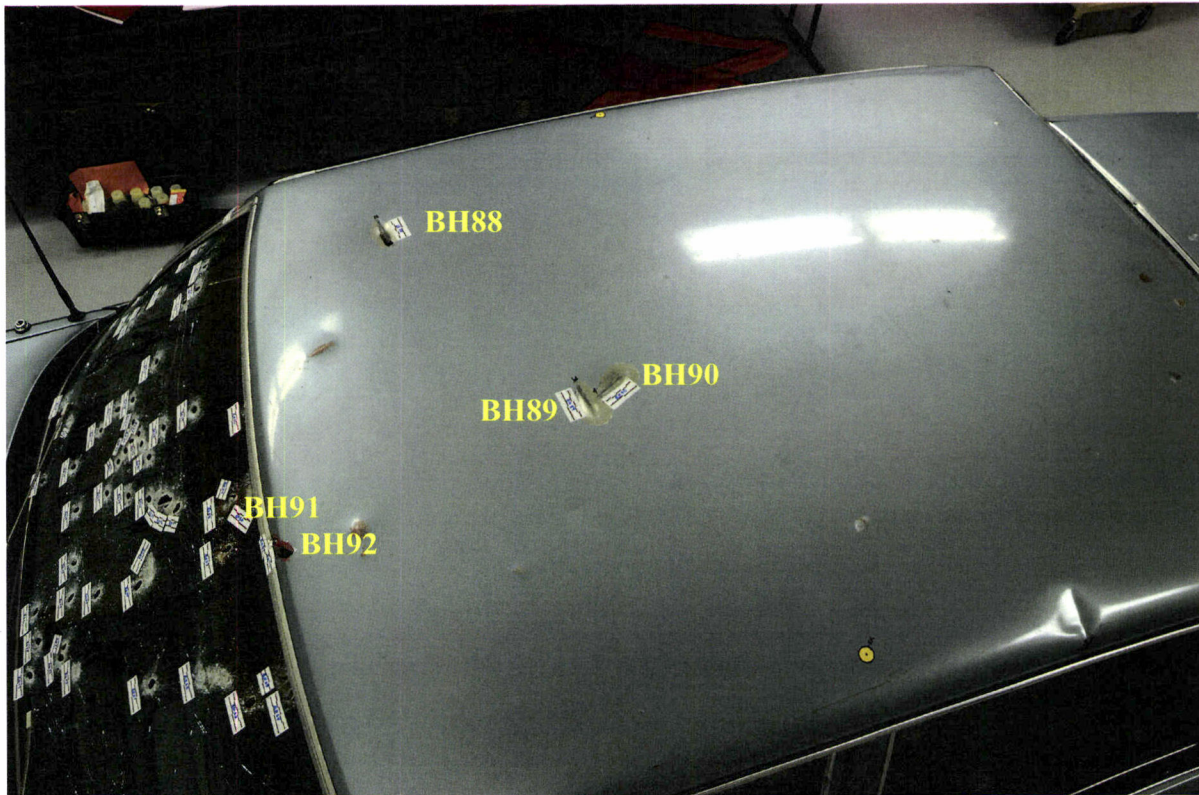


Figure 11 (BHs 88-92)

Interior:

There were five bullet holes found within the interior that could not be matched up with any of the above-mentioned bullet holes so they were treated as entry holes. These most likely entered the interior through an open window. The following data was collected from these holes:

Bullet Hole #	Location	Vertical Impact Angle	Horizontal Impact Angle*	Direction of Travel**
BH93	Passenger's side B-pillar	N/A	N/A	Ricochet off B-pillar.
BH94	Driver's side front door	-15°	84°	Downward, 3 o'clock to 9, perforated door.
BH95	Driver's side front door	N/A	N/A	Lodged in window ledge (collected at scene, placard #88)
BH96	Driver's side rear door	N/A	N/A	4 o'clock to 11, penetrated door.
BH97	Driver's side rear seat backrest	-5°	72°***	Downward, 11 o'clock to 5, penetrated seat.

*0° is driver's side front fender, 180° is driver's side rear fender.

**12 o'clock is front of vehicle, 6 o'clock is rear of vehicle.

*** 0° is driver's side front fender, 180° is passenger's side front fender.

Figures 12, 13, 14, and 15 depict the trajectories that were determined during this analysis:

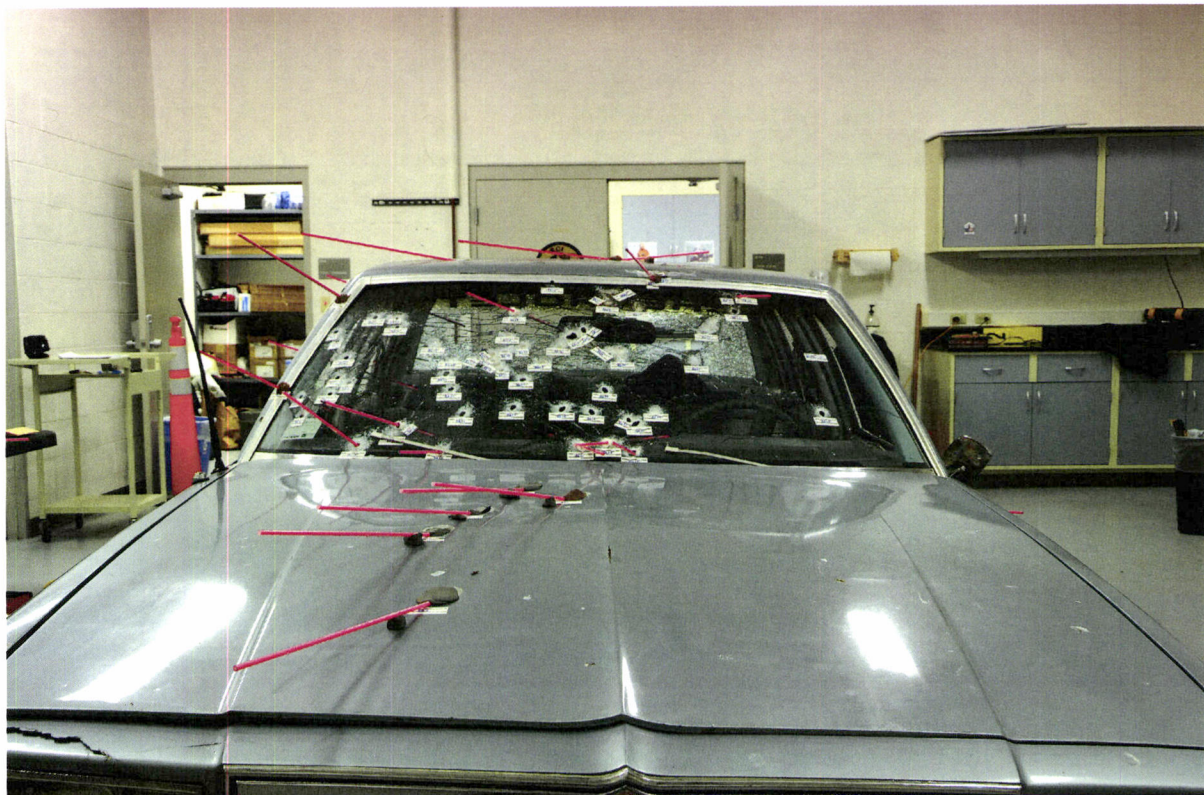


Figure 12 (bullet trajectories)

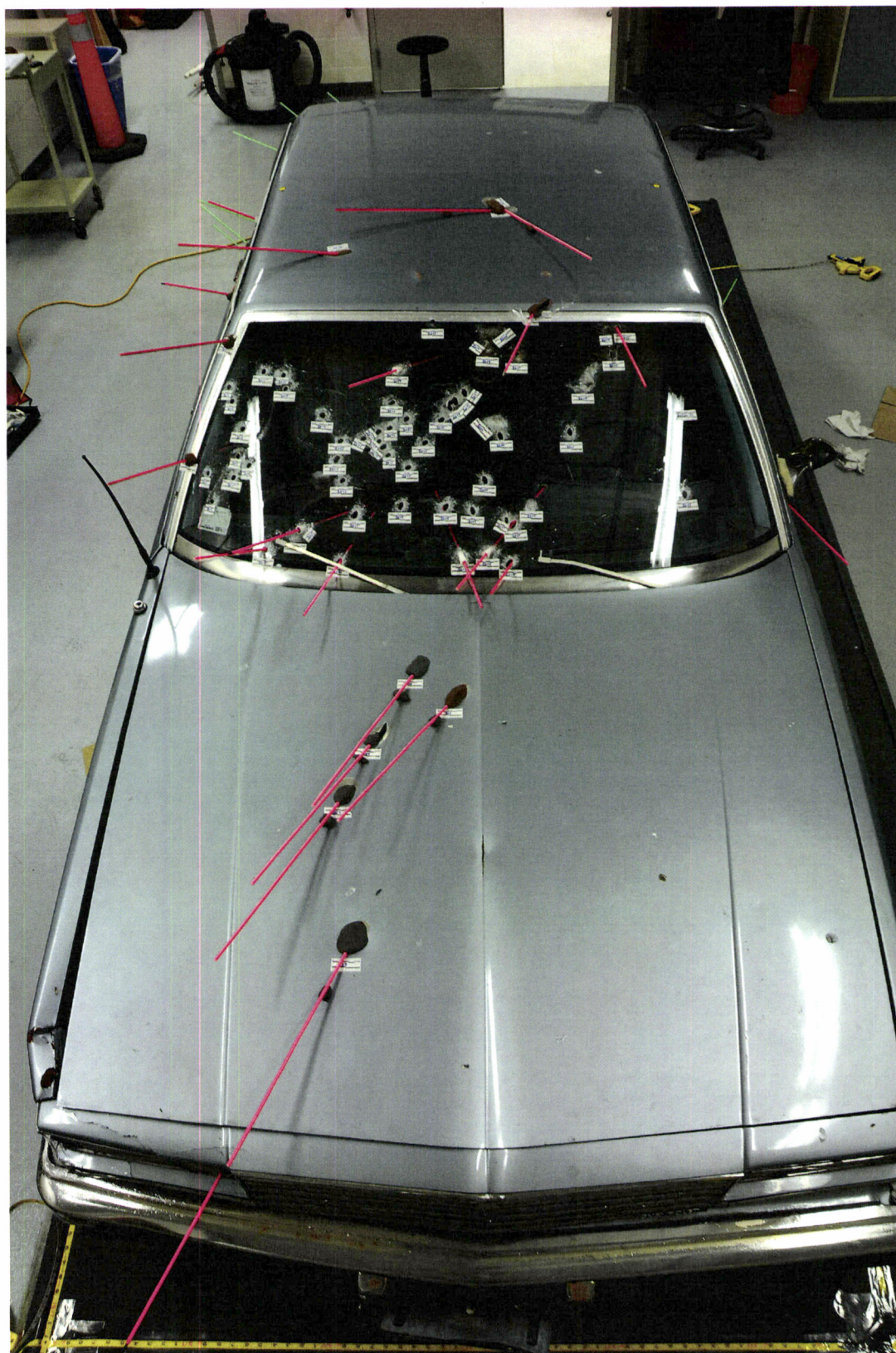


Figure 13 (bullet trajectories)

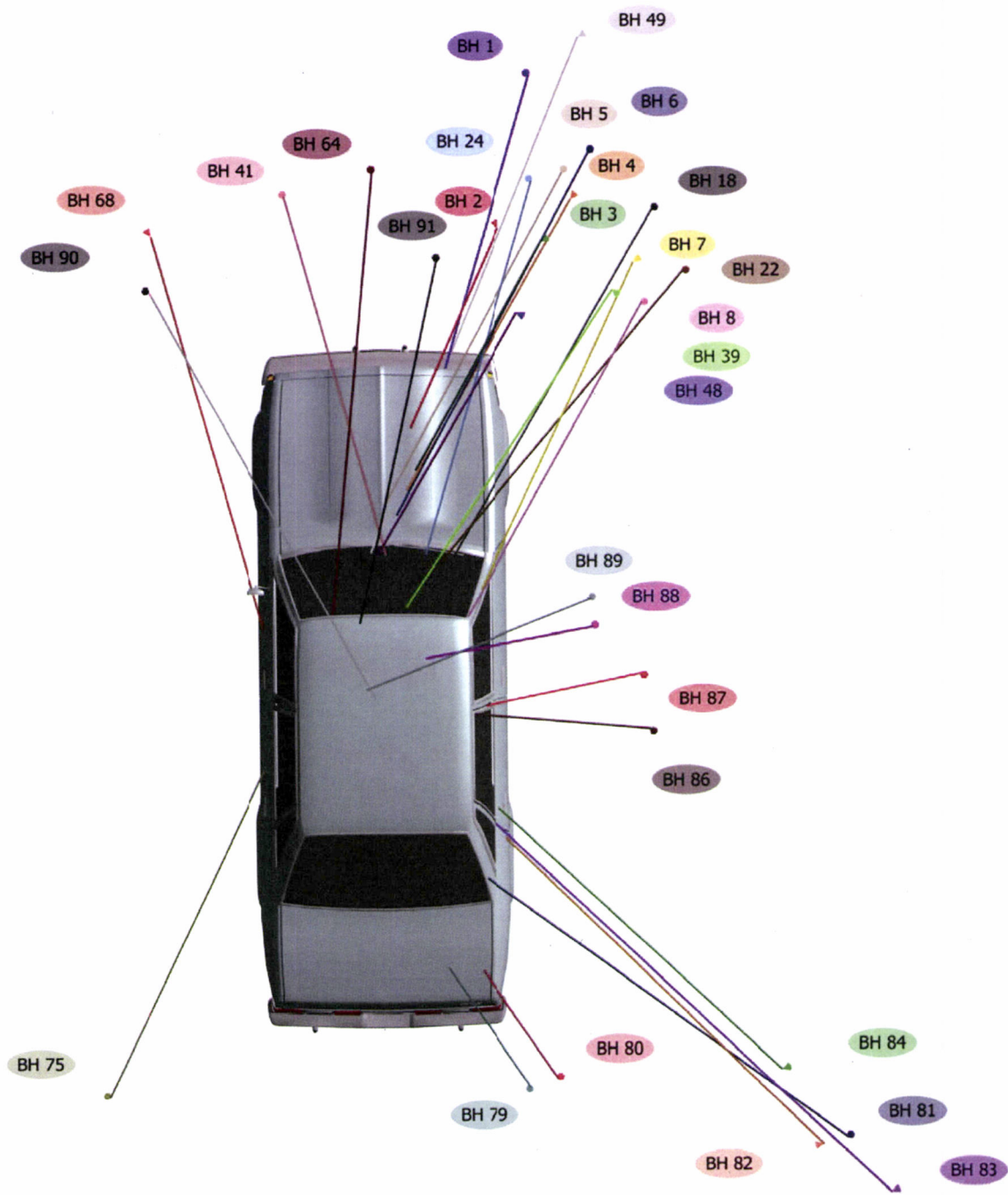


Figure 14 (bullet trajectories, horizontal impact angles depicted)

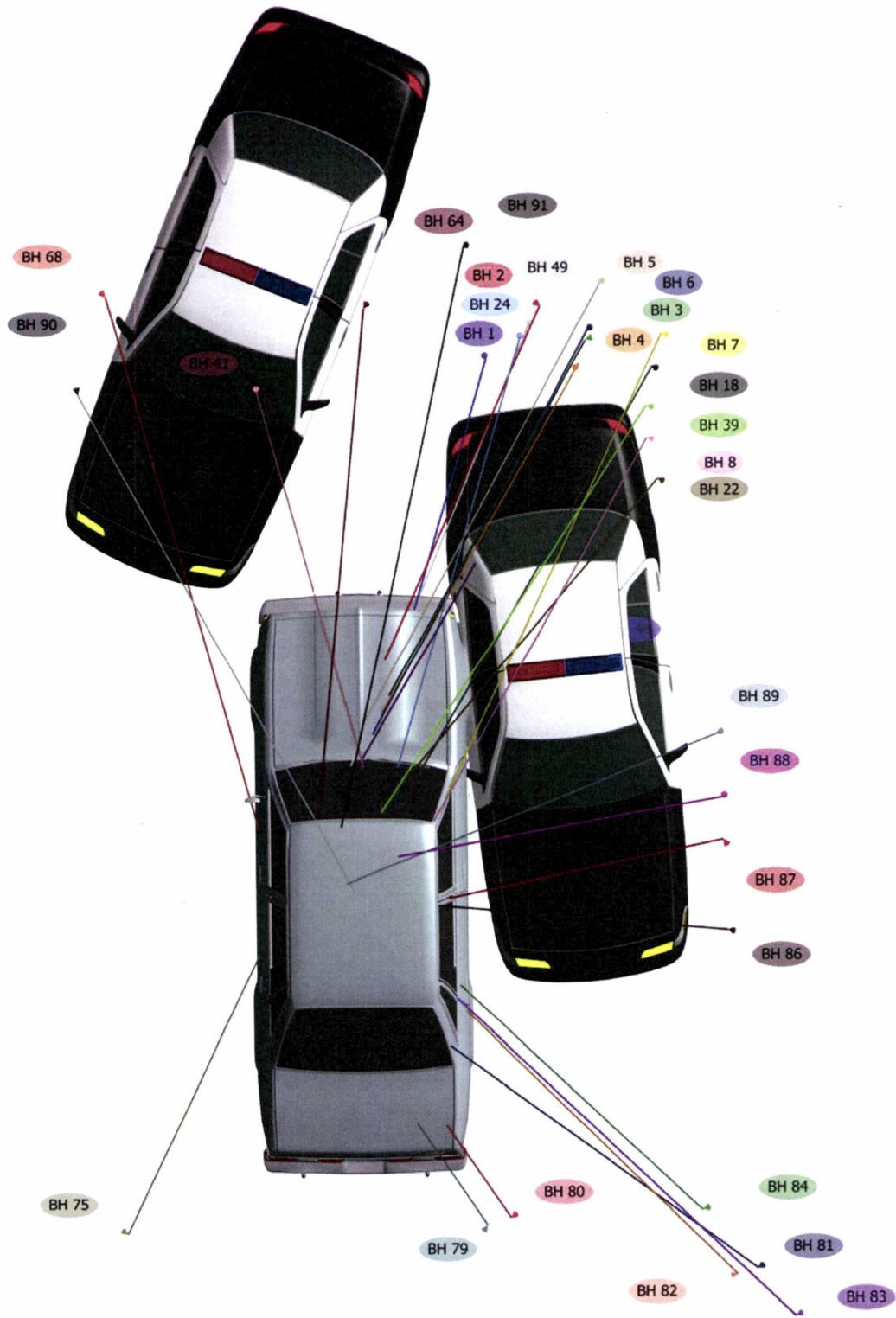


Figure 15 (trajectories with all three vehicles in place)

A total of twenty-five bullets and bullet fragments were collected from the Malibu:

- Three bullets from the driver's rear door panel (one associated with BH69).
- One bullet from the tire in the rear seat.
- One bullet from the pocket of the suitcase in the rear seat.
- One fragment from the passenger's side front floorboard.
- One bullet from the passenger's rear seat.
- One bullet from the passenger's rear door frame.
- One bullet from the driver's side front door frame.
- One bullet from the passenger's front seat.
- One bullet from the driver's C-pillar (BH77).
- One bullet from the center of the front seat.
- One fragment from the driver's rear window ledge.
- One bullet from the passenger's front seatback.
- One bullet from the passenger's rear window ledge.
- One bullet from the driver's rear window ledge.
- One bullet from the driver's front floorboard.
- One bullet from the passenger's side rear window ledge.
- One bullet from the driver's front seatback.
- One bullet from the back seat panel.
- One bullet from the driver's rear seatback (BH97).
- One bullet from the passenger's rear floorboard.
- One bullet and two fragments from the driver's rear floorboard.

The contents of the suitcase from the rear seat and the trunk were examined and nothing of evidentiary value was found. An empty red colored Coca-Cola can was found on the passenger's side front floorboard and it was collected. A Garmin Nuvi GPS unit and a cell phone manual with handwritten telephone numbers on the cover were found on the front seat and collected. Also collected from the front seat were two lighters and a charred glass pipe believed to be a crack pipe. Collected from the glove box was one Chore Boy scouring pad.

The rear seat was removed and firefighters from the Richfield Fire Department were called in to remove the front seat to complete the search of the vehicle. Using a hydraulic rescue tool they pried off the front seat. Once the seats were removed, the interior was searched one final time. Nothing else was found.

The hood was searched and nothing of evidentiary value was found. After searching the hood, a Speer 9mm cartridge case was found on the garage floor near the passenger's side front fender. It is believed that this cartridge case was dislodged from the wiper cowl during the search of the trunk and fell to the ground. A subsequent laboratory reported dated December 11, 2012 by BCI Forensic Scientist Michael Roberts reported that this cartridge case was matched to CPD Officer Michael Brelo's firearm. Three cartridge cases (placard #s 70-73) had been collected off of the hood at the scene near this area and those all were matched to Brelo's firearm.

The examination of the Malibu concluded at 1445 hours on December 6, 2012.

Officer Involved Shooting

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A copy of this report is to be sent to:

**Det. Sgt. Scott Gardner
East Cleveland Police Department
14340 Euclid Ave.
East Cleveland, OH 44112**