Collision Analysis & Reconstruction Report



Incident Report Number: 131640069 DOT Document Number: QQJG3V2 Crash Date: Thursday, June 13, 2013, 11:47 a.m.

> Location: 4975 N. Teutonia Ave. City of Milwaukee Milwaukee County, Wisconsin

> > Prepared by:

Officer Christopher Bruns Officer Richard Schnier Milwaukee Police Department Neighborhood Task Force Crash Reconstruction Unit

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This crash occurred on Thursday, June 13, 2013, at approximately 11:47 a.m., at the intersection of North Teutonia Avenue and West Cameron Avenue, in the City and County of Milwaukee. The investigation revealed that a 2006 Dodge Charger operated by Jasmine D. BEETS was traveling northbound on North Teutonia Avenue, approaching the intersection of West Cameron Avenue, when a 2002 Dodge Intrepid, driven by Lee GREEN, entered the intersection traveling westbound and was struck by the northbound Dodge Charger.

GREEN died from the injuries he sustained in this collision event.



Figure 1 - Bing Maps Image of Collision Area

OBJECTIVE OF ANALYSIS

The objective of this report is to establish the speed and positioning of the vehicles through the collision sequence using the available physical evidence collected during the crash investigation. Human factors and environmental factors will also be reviewed. Should additional information come forward after this report is completed, it would need to be reviewed to determine its effects on the findings.

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The scene of the traffic crash was located at an intersection where three roads converge: North Teutonia Avenue, North 28th Street and West Cameron Avenue.

North Teutonia Avenue is a four-lane roadway that runs nominally northwest to southeast and is primarily constructed of concrete. There are two southbound travel lanes that are separated by a dashed white lane line and two northbound travel lanes that are separated by a dashed white lane line. A dashed yellow lane line separates the northbound and southbound travel lanes. Raised concrete curbing defines the roadway edges and is approximately 48 feet wide, curb to curb. There is no traffic control (stop sign/traffic signal) for traffic on North Teutonia Avenue at this intersection. The posted speed limit on N. Teutonia Ave. is 30 mph.

North 28th Street is a two-lane roadway that runs nominally north and south and is primarily constructed of concrete. There is one travel lane in each direction with a parking lane on either side of the road. Raised concrete curbing defines the roadway edges and is approximately 34 feet wide, curb to curb. The speed limit for North 28th Street is 25 mph. A stop sign is posted for southbound traffic on North 28th Street at North Teutonia Avenue.

West Cameron Avenue is a two-lane roadway that runs nominally east and west and is primarily constructed of concrete. There is one travel lane in each direction with a parking lane on either side of the road. Raised concrete curbing defines the roadway edges and is approximately 37.5 feet wide, curb to curb. The speed limit for West Cameron Avenue is 30 mph. A stop sign is posted for eastbound traffic on West Cameron Avenue at North Teutonia Avenue. West Cameron Avenue extends to the west of North Teutonia Avenue with no travel east of North Teutonia Avenue.

At the time of the crash the roadway was dry and clear of any debris or defect. The roadway is flat with no observable roadway features or stationary obstructions that would have contributed to this crash.



Figure 2 – This photograph obtained from Google Maps illustrates the general design and setting of the crash scene. The photograph was not taken on the day of the crash and is not intended to depict the conditions at that time.

Following the collision, investigating officers observed two vehicles involved in the crash. One vehicle was identified as a maroon 2002 Dodge Intrepid, four-door, bearing WI disabled registration 97871D, VIN: 2B3HD56G42H265447, which listed to Lee GREEN (B/M 09/16/39 of 4924 N. 22nd St., Milwaukee, WI 53209). This vehicle was located facing southbound in the south travel lane of North Teutonia Avenue, approximately 95 feet north of West Cameron Avenue. The vehicle had severe damage to the left fender and driver's door. Figure 3 depicts the orientation and damage of the Dodge Intrepid at final rest.



Figure 3 - Dodge Intrepid final rest position.

The second vehicle was identified as a black 2006 Dodge Charger, four-door, bearing WI registration PVANN, VIN: 2B3KA53H46H443567, which listed to Prentise D. VAN BEETS (B/M 05/13/79 of 923 Tower Lane, West Bend, WI 53090). The Dodge Charger was located in the parking lot on the northwest corner of the intersection, with the front end of the vehicle resting against the building at 4957 North Teutonia Avenue. The vehicle sustained severe front-end damage. Figure 4 depicts the orientation and damage of the Dodge Charger at final rest.



Figure 4 - Dodge Charger final rest position.

EVIDENCE COLLECTION AND SCENE DOCUMENTATION

Officer Christopher BRUNS of the Crash Reconstruction Unit responded to the scene of the crash and proceeded with the task of recording and documenting measurements. The area was profiled and surveyed by using a Topcon GPT-3000 Total Station. This device is an electronic instrument that is composed of a theodolite (angle measuring system), an EDM (electronic distance measuring system), an external data collector and a prism. This is a two-person operation involving one individual operating the total station and a second person holding the prism over a particular evidentiary point. The theodolite and the EDM then record the angle and the distance to the prism. The recorded data is stored electronically and later downloaded for transfer and creation of scaled drawings. Officer Matthew KRONSCHNABEL held the prism pole while Officer BRUNS operated the total station. A scaled drawing of the scene was created by using the Crash Zone professional software program and is included in this report.

During the scene survey, numerous items of evidentiary value were documented, including scene evidence and roadway features.

VEHICLE EXAMINATION

2006 Dodge Charger

This vehicle was originally towed from the scene of the crash and stored at the City of Milwaukee Department of Public Works Tow Lot, located at 3811 W. Lincoln Ave., where it was stored in the Z building, indoor storage. The vehicle was towed as evidence tow #1579793.

On Tuesday, July 9, 2013, Officers Richard SCHNIER and Christopher BRUNS of the Crash Reconstruction Unit examined the 2006 Dodge Charger at the City of Milwaukee Tow Lot. The Dodge Charger was located in substantially the same condition as it was on the day it was towed. At the time of the examination the right rear tire was disabled and the left front wheel had a broken ball joint. The right front wheel was disabled and locked due to damage. The left rear wheel was intact and unremarkable. Located on the front right corner of the hood in the damaged area, was an imprint of a chrome side air vent that was on the left fender of the Dodge Intrepid involved in this crash. This imprint was documented by measurements and photos. Damage was noted to the right side of the vehicle, where Intrepid the "slapped" the Charger during the after impact rotation.

This Dodge Charger is a four-door passenger car powered by a 5.7L, V8 gasoline engine. The engine's power is delivered to the road through a five-speed automatic transmission coupled with rear-wheel drive. The vehicle is equipped with four-wheel antilock disc brakes. The listed curb weight of this vehicle is reported at 3900 lbs. The vehicle was weighed post-crash on a certified scale with the recorded total weight of the vehicle at 4110 lbs.

The entire front end of the Dodge Charger sustained severe rearward displacement as a result of the collision with the Dodge Intrepid, along with an undetermined amount of damage due to the collision with the building.

On Thursday, November 14, 2013, a search warrant was obtained to conduct a mechanical inspection on the 2006 Dodge Charger involved in the fatal motor vehicle crash that occurred on June 13, 2013 at 4975 N. Teutonia Avenue.

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On Friday, November 15, 2013, City of Milwaukee Police Officer John Plank of the Neighborhood Task Force, who has training and experience as a qualified mechanic, conducted the mechanical inspection on the 2006 Dodge Charger, MPD evidence tow #1579793. The mechanical inspection was conducted at the City of Milwaukee Tow Lot, Z building, located at 3811 West Lincoln Avenue.

It was the opinion of Officer Plank that the brakes on this vehicle were adequately functional prior to this crash and can be ruled out as causal components.

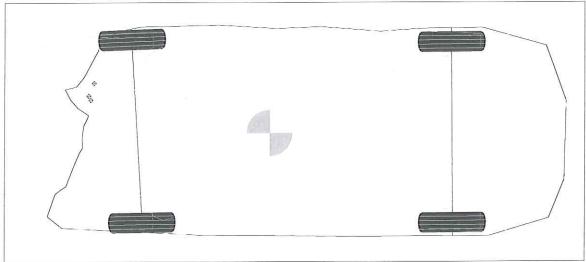


Figure 5. The above drawing depicts the depth of crush sustained by the Dodge Charger as a result of this collision. The measurements were taken at bumper height with the Topcon Total Station.

2002 Dodge Intrepid

This vehicle was originally towed from the scene of the crash and stored at the City of Milwaukee Department of Public Works Tow Lot, located at 3811 W. Lincoln Ave., where it was stored in the Z building, indoor storage. The vehicle was towed as evidence tow #1579792.

On Tuesday, July 9, 2013, Officers Richard SCHNIER and Christopher BRUNS of the Crash Reconstruction Unit examined the 2002 Dodge Intrepid at the City of Milwaukee Tow Lot. The Dodge Intrepid was located in substantially the same condition as it was on the day it was towed. At the time of the examination the right rear tire was in good condition with no damage. The left rear tire and left front tire were disabled and flat. The right front tire was also flat. Located on the left fender, in the damaged area, was a decorative plastic chrome side air vent. A corresponding imprint was located on the hood of the Dodge Charger involved in this crash. This plastic chrome air vent was documented by measurements and photos. Along with the contact damage from the initial impact, damage was observed to the entire left side of the vehicle, where the Charger "slapped" the Intrepid during the after impact rotation.

The Dodge Intrepid is a four-door passenger car powered by a 3.5L, V6 24V SOHC gasoline engine. The engine's power is delivered to the road through a four-speed automatic transmission coupled with front-wheel drive. The vehicle is equipped with four-wheel antilock disc brakes. The listed curb weight of this vehicle is reported at 3310 lbs. The vehicle was weighed post-crash on a certified scale with the recorded total weight of the vehicle at 3800 lbs.

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On Thursday, November 14, 2013, a search warrant was obtained to conduct a mechanical inspection on the 2002 Dodge Intrepid involved in the fatal motor vehicle crash that occurred on June 13, 2013 at 4975 N. Teutonia Avenue.

On Friday, November 15, 2013, City of Milwaukee Police Officer John Plank of the Neighborhood Task Force, who has training and experience as a qualified mechanic, conducted the mechanical inspection on the 2002 Dodge Intrepid, MPD evidence tow #1579792. The mechanical inspection was conducted at the City of Milwaukee Tow Lot, Z building, located at 3811 West Lincoln Avenue.

It was the opinion of Officer Plank that this vehicle appeared to have been in relatively good mechanical condition prior to this incident. Officer Plank stated that he could not find any mechanical discrepancies that would have contributed to this crash incident.

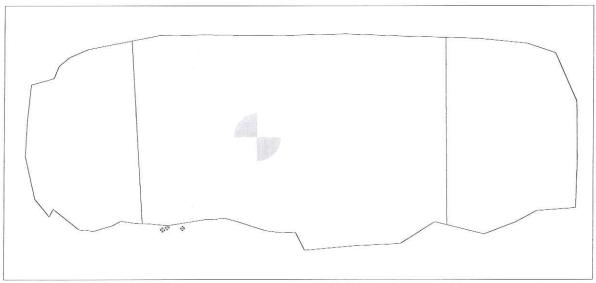


Figure 6. The above drawing depicts the depth of crush sustained by the Dodge Intrepid as a result of this collision. The measurements were taken at bumper height with the Topcon Total Station.

CDR ANALYSIS: ACM Download – 2006 Dodge Charger

The Dodge Charger had a Crash Data Retrieval (CDR) accessible EDR contained in the Airbag Control Module (ACM). The ACM is an electronic instrument that "senses" a crash and makes the "decision" as to whether or not the airbags should be deployed. The module, which utilizes an internal accelerometer to analyze and interpret sudden speed changes, may also record data surrounding a collision event. This data may include pre-collision data such as vehicle speed; throttle position, engine rpm's and brake position, post-collision longitudinal velocity change information, as well as seat belt use and general airbag deployment command parameters.

The driver and front passenger airbags did deploy in this collision event.

The data obtained from the Airbag Control Module is not intended to stand alone, or in place of a complete collision reconstruction and causation analysis. Recovered information should be utilized in conjunction with professional analytical techniques and procedures. It is strongly recommended that all information downloaded from the vehicle on-board recording devices be analyzed and interpreted by properly trained personnel.

On Monday, June 17, 2013, a search warrant was issued by Judicial Court Commissioner Rosa Barillas to access the data stored in the 2006 Dodge Charger, VIN: 2B3KA53H46H443567, registered to Prentise D. VAN BEETS, involved in this fatal crash.

On Monday, June 17, 2013, at 6:22:18, Police Officer William Hanney of the Crash Reconstruction Unit accessed the ACM via the vehicle's OBD II port (Diagnostic Link Connector), using the Bosch Crash Data Retrieval System, version 3.5. The recovered data was saved to a compact disc in a CDRx and PDF format and placed on MPD evidence inventory #13018404.

The Bosch CDR system is an electronic interface that allows investigators to extract the stored data from the airbag module. The system converts the stored hexadecimal data into a discernable format and displays it in a report-type format. The download showed two (2) events recovered from the ACM that included a *Most Recent Event* and a 1st *Prior Event*. According to the Data Limitations in the CDR File Information, no previous events were stored in the ACM. Analysis of the data revealed that in the two seconds prior to impact, the Dodge Charger reached speeds of up to 65 miles per hour before applying its brakes in the last ½ second prior to airbag deployment. The data recorded a speed of 60 miles per hour at -0.1 second prior to airbag deployment. (Figure 7)

Time Stamp (sec)	Vehicle Event Recorder Status	Engine RPM	Speed, Vehicle Indicated (MPH [km/h])	Engine Throttle, % Full	Accelerator Pedal, % Full	Raw Manifold Pressure (kPa)	Service Brake	Brake Switch #2 Status
-2.0	Complete	3,296	62 [100]	37.4	40.6	94	Off	Open
-1.9	Complete	3,328	62 [100]	37.4	40.9	94	Off	Open
-1.8	Complete	3,328	63 [101]	37.4	40.6	93	Off	Open
-1.7	Complete	3,360	63 [101]	36.2	38.2	93	Off	Open
-1.6	Complete	3,360	63 [102]	35.0	37.8	93	Off	Open
-1.5	Complete	3,360	63 [102]	34.3	36.6	90	Off	Open
-1.4	Complete	3,392	64 [103]	31.9	35.0	91	Off	Open
-1.3	Complete	3,392	64 [103]	31.1	35.0	89	Off	Open
-1.2	Complete	3,392	65 [104]	28.7	33.9	88	Off	Open
-1.1	Complete	3,360	65 [104]	23.6	26.8	81	Off	Open
-1.0	Complete	3,168	65 [104]	10.6	10.2	58	Off	Open
-0.9	Complete	3,200	65 [105]	9.8	13.0	38	Off	Open
-0.8	Complete	3,296	65 [105]	12.2	17.3	39	Off	Open
-0.7	Complete	3,200	65 [105]	10.6	0.0	38	Off	Open
-0.6	Complete	3,072	65 [105]	5.9	0.0	22	Off	Open
-0.5	Complete	3,072	65 [104]	5.5	0.0	17	On	Closed
-0.4	Complete	3,040	64 [103]	5.5	0.0	14	On	Closed
-0.3	Complete	3,008	63 [102]	5.5	0.0	14	On	Closed
-0.2	Complete	2,944	62 [100]	5.5	0.0	14	On	Closed
-0.1	Complete	2,816	60 [96]	5.1	0.0	14	On	Closed

Figure 7

The download of the ACM from the 2006 Dodge Charger generated a 16-page CDR report. The System Status at Time of Retrieval showed the Recording Status as Complete. It reported NO Diagnostic Trouble Codes Existed. The time stamp of the recovered information was recorded every 1/10 second.

COLLISION SEQUENCE Based on the physical evidence collected at the scene, vehicle examinations and witness statements, the following collision sequence is offered.

The 2006 Dodge Charger was traveling northbound at a high rate of speed on North Teutonia Avenue, approaching the intersection of West Cameron Avenue, when a 2002 Dodge Intrepid entered the intersection traveling westbound and was struck by the

northbound Dodge Charger. Following the impact, the Dodge Intrepid rotated in a clockwise rotation as it was forced primarily towards the north, and came to rest facing southbound in the southbound travel lanes of North Teutonia Avenue, approximately 100 feet north of the intersection of West Cameron Avenue. The vehicle's path of travel was evident by curved tire marks left on the roadway as it moved to final rest.

The Dodge Charger departed the collision primarily in a northwesterly direction. After reaching the northwest corner of the intersection, the Charger mounted the raised concrete curb and traveled across the parking lot at 4957 North Teutonia Avenue. The Dodge Charger impacted a metal donation box located on the corner of the parking lot and continued across the lot and collided into the brick building, causing damage. The Dodge Charger traveled approximately 140 feet before coming to rest against the building. The vehicle's post-impact movement was evident by scrape marks, tire marks, and a fluid trail.

SPEED ANALYSIS

The Principle of the Conservation of Momentum was used to solve for the impact speeds of the Dodge Charger and the Dodge Intrepid. This method is dependant upon approach and departure angles, weights, and post impact speeds of the involved vehicles. The approach and departure angles are determined from the damage profiles of the vehicles and the physical evidence left at the scene of the crash. The physical evidence often consists of such things as tire marks, scrapes, gouges, and fluid trails. A vehicle's post impact speed is dependant upon the distance the vehicle traveled from impact to final rest, and the drag factor assigned to the vehicle for the particular surface type and vehicle tires that are locked or disabled due to damage.

Using the *Conservation of Momentum*, the impact speed of the Dodge Charger was estimated to be approximately **55-59 MPH**. The Dodge Intrepid was estimated to be traveling approximately **11 MPH** at impact. There was no physical evidence of pre-impact braking found on the roadway for either vehicle.

TIME/DISTANCE ANALYSIS

A time/distance analysis was conducted using the calculated impact speeds for the vehicles. In doing so, several calculations were made placing the Intrepid prior to impact. The analysis showed:

- The Intrepid needed approximately 5.9 seconds to 6.6 seconds to have cleared the area of impact.
- Using the lower end calculation of 55 mph, the closest the Charger would have been from impact is approximately 352 feet when the Intrepid entered the intersection.
- Using the distance of 352 feet, it would have taken the Charger eight seconds to reach the point of impact, thus the Intrepid would have had at least 1.4 seconds to clear the area of impact.
- Conversely, at 59 mph, the farthest the Charger would have been from impact was 534 feet when the Intrepid entered the intersection.
- Using the distance of 534 feet, it would have taken the Charger twelve seconds to reach the point of impact, thus the Intrepid would have had at least 5.4 seconds to clear the area of impact.
- Had the Charger been traveling at the posted speed limit of 30 mph, this crash would not have occurred.

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In an effort to thoroughly examine any possible contributing factors to this collision, the National Highway Traffic Safety Administration's Office of Defects Investigation (ODI) database on vehicle recalls and campaigns was researched in regards to the 2006 Dodge Charger and the 2002 Dodge Intrepid.

It was found that three (3) recalls and/or campaigns existed that related to the 2006 Dodge Charger line of vehicles:

- 1. (NHTSA Campaign Number: 08V583000) Police package gearshift cable steering column. As stated, "The gearshift cable may become disengaged from the steering column mounting bracket and cause an incorrect transmission gearshift position display. This could allow the vehicle to move in an unexpected direction startling the driver and cause a crash without warning." This vehicle was not equipped with the police package, thus this recall did not contribute to this crash event.
- 2. (NHTSA Campaign Number: 06V149000) attributed to rear brake tubes. As stated, "...braking systems may exhibit inadequate clearance between the rear brake tubes and the exhaust gas recirculation tube. This contact may cause the brake tubes to wear through and cause a brake fluid leak, which can result in a decrease of braking force and the potential for an engine compartment fire." This recall did not contribute to this crash event.
- 3. (NHTSA Campaign Number: 05V460000) Automatic transmission cup plug. As stated, "...the cup plug that retains the park pawl anchor shaft may be improperly installed. If the shaft moves out of position the vehicle may not be able to achieve 'park' position. If this occurs and the parking brake is not applied, the vehicle may roll away and cause a crash without warning." This crash is not attributed to a parking maneuver, thus this recall did not contribute to this crash event.

A subsequent search with www.carfax.com and a vehicle history report on the vehicle identification number (2B3KA53H46H443567) for the 2006 Dodge Charger R/T involved in this crash revealed that this vehicle had two previous owners, with a clean Title History. This vehicle reported Accident Damage on 06/13/2013, with Airbag Deployment and a Total Loss. There were no Structural Damage issues reported and the Odometer Check revealed no indication of an odometer rollback. The Manufacturer Recall check reported no open recalls on this vehicle.

It was found that three (3) recalls and/or campaigns existed that related to the 2002 Dodge Intrepid line of vehicles:

- 1. (NHTSA Campaign Number: (09E025000) FMVSS 108/Replacement Headlamps/Amber Reflector. Manufacturer: Dope, Inc. As stated, "These lamps do not contain the required amber side reflectors. Decreased lighting visibility may result in a vehicle crash." This crash incident occurred during daylight hours, thus this recall did not contribute to this crash event.
- (NHTSA Campaign Number: 09E012000) FMVSS 108/Aftermarket Combination Lamps. Manufacturer: Sabersport. As stated, "These lamps do not contain the required amber side reflectors. Decreased lighting visibility may result in a vehicle crash." This crash incident occurred during daylight hours, thus this recall did not contribute to this crash event.
- (NHTSA Campaign Number: (03E035000) DaimlerChrysler/Seat Back Reclining Bolt. As stated, "On certain passenger vehicle, seat back recliner bolt breakage can occur

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resulting in the seat back reclining unexpectedly." The driver seat back was found to be in the upright position at the scene of the crash investigation.

A subsequent search with www.carfax.com and a vehicle history report on the vehicle identification number (2B3HD56G42H265447) for the 2002 Dodge Intrepid ES involved in this crash revealed that this vehicle had two previous owners with a clean Title History. This vehicle reported Accident/Damage on 06/13/2013. It showed no issues reported with the Total Loss, Structural Damage, Airbag Deployment, Odometer Check and Manufacturer Recall.

HUMAN FACTORS

On June 18, 2013, a search warrant was authorized to obtain the medical blood drawn at St. Joseph's Hospital from Jasmine BEETS upon her admission to the emergency room on June 13, 2014. The blood vials were placed on MPD evidence inventory #13018487 and then transferred to the Wisconsin Regional Crime Laboratory for analysis, Lab Case #R13-2160. Toxicologist Leah MACANS tested the blood evidence for ethanol and drug content. The Milwaukee Police Department received a Confidential Report of Laboratory Findings dated July 2, 2013 that showed no ethanol was detected in the blood sample. The Milwaukee Police Department received a supplemental report from the WRCL dated July 18, 2013, which confirmed the presence of Opiates. The level of Opiates was not confirmed due to insufficient sample. Cannabinoids, specifically 9-Carboxy-Tetrahydrocannabinol (THCA), which was confirmed but not quantified, and 11-Hydroxy-Tetrahydrocannabinol at a level less than 0.50 ug/L were reported. Neither of the confirmed drugs are Restricted Controlled Substances under Wisconsin State Statute.

A Report of Toxicological Analysis received from the Milwaukee County Medical Examiner of Ante mortem specimens collected from Lee GREEN revealed no ethanol or drugs were present in his system.

HIGHWAY AND ENVIRONMENTAL FACTORS

Highway Factors

At the time of the crash the roadway was dry and clear of any debris or defect. The roadway configuration is flat and straight. The speed limit for North Teutonia Avenue at this intersection is 30 miles per hour and the speed limit for West Cameron Avenue is 30 miles per hour. During the investigation, officers did not observe any roadway features or stationary obstructions that would have contributed to the crash.

Environmental Factors

Historical weather data for Milwaukee as cataloged and archived by the website www.weatherunderground.com indicated that conditions at 11:50 a.m. on Thursday, June 13, 2013, from the Glendale, WI weather station (KWIGLEND3) were as follows: temperature 71.6°, dew point 58.8°, relative humidity 64%, winds NE at 3.0 mph, barometric pressure 29.96 in., with partly cloudy skies. As of this report, no environmental factors have been identified that would have contributed to the collision.

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INVESTIGATIVE SUMMARY The following statements are the opinions of the author and are based on all of the information included in this report. These opinions are based on my training and experience in the field of crash investigation/reconstruction. These statements are accurate to a reasonable degree of scientific certainty and are based on sound scientific principles.

- This crash occurred on Thursday, June 13, 2013, at approximately 11:47 a.m., at the intersection of North Teutonia Avenue and West Cameron Avenue, in the City and County of Milwaukee. The investigation revealed that a 2006 Dodge Charger operated by Jasmine D. BEETS (b/f 03/04/92) was traveling northbound on North Teutonia Avenue, approaching the intersection of West Cameron Avenue, when a 2002 Dodge Intrepid, driven by Lee GREEN (b/m 09/16/39), entered the intersection traveling westbound and was struck by the northbound Dodge Charger.
- Lee GREEN suffered fatal injuries as a result of this collision.
- The impact speed of the Dodge Charger was estimated to be approximately 55-59
 MPH.
- The Dodge Intrepid was estimated to be traveling approximately 11 MPH at impact.
- CDR data revealed the Dodge Charger reached speeds of up to 65 miles per hour before applying its brakes in the last ½ second prior to airbag deployment. The data recorded a speed of 60 miles per hour at -0.1 second prior to airbag deployment. This data is consistent with the momentum analysis that was performed.
- A time/distance analysis showed that had the Charger been traveling at the posted speed limit of 30 mph, this crash would not have occurred.
- There was no physical evidence of pre-impact braking found on the roadway for either vehicle.
- There was no evidence for alcohol or drug impairment for either driver.
- A check with the WI Department of Transportation revealed BEETS had a suspended driver's license at the time of the collision.
- No environmental or highway factors have been identified that would have contributed to this collision.
- No vehicle factors have been identified that would have contributed to this collision.

Respectfully submitted,

Officer Christopher Bruns Milwaukee Police Department Neighborhood Task Force Crash Reconstruction Unit

Officer Richard Schnier Milwaukee Police Department Neighborhood Task Force Crash Reconstruction Unit

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INFORMATION REVIEWED FOR REPORT PREPARATION

Printed Material(s) and Police Reports Numerous police reports and published references were consulted in preparing this analysis. The items of information that were reviewed include the following:

- 1. City of Milwaukee Police Department reports:
 - A. Wisconsin Motor Vehicle Crash Report (MV4000e) completed by Officer Vincent WOLLER.
 - B. Narrative reports written by Officer Vincent WOLLER.
 - C. Narrative reports written by Officer Ron FOHR
 - D. Narrative reports written by Detective Douglas MARX.
 - E. Narrative reports written by Officer Matthew GRAUBERGER.
 - F. Narrative reports written by Officer Christopher BRUNS.
 - G. Narrative reports written by Officer William HANNEY.
 - H. Narrative reports written by Officer Richard SCHNIER.
 - I. Vehicle inspection reports written by Officer John PLANK.
- 2. State of Wisconsin Crime Laboratory Report:
 - Toxicology report of Jasmine BEETS, written by Certified Toxicologist Leah MACANS, Lab Case #R13-2160.
- Milwaukee County Medical Examiner Autopsy protocol of Lee GREEN by Dr. Wieslawa TLOMAK
- 4. Milwaukee County Medical Examiner Report of Toxicological Analysis, Case #13-2723.
- 5. Wisconsin Department of Transportation Certified Report of Driver Status of Jasmine BEETS.

Photography/Video

The following digital photographs were reviewed while completing the reconstruction analysis:

- One Hundred Forty-three (143) digital photographs taken at the crash scene by Forensic Investigator Bridget SCHUSTER.
- 2. Forty (40) digital photographs taken at the City of Milwaukee Tow Lot by Police Officer Christopher Bruns.
- 3. Digital video of Dodge Intrepid during Mechanical Inspection.
- 4. Digital video of Dodge Charger during Mechanical Inspection.

Computer software/data used

The following computer software programs or professional websites were utilized or consulted in preparing this collision analysis:

1. Computer Programs

- A. The CAD Zone professional drawing software
- B. Accident Reconstruction Professional, Version 7.50.33, (Maine Computer Group).
- C. Expert AutoStats Version 4.6 Vehicle Dimension and Specification Software
- D. VIN Assist Version 1.38LE Vehicle Identification Number Decoding Software.
- E. Bosch Crash Data Retrieval System version 3.5

2. Professional Websites

- A. Road map of the collision area (www.bing.com/maps)
- B. Aerial Photograph of the collision area (www.googlemaps.com)
- C. Historical weather data for nearby Milwaukee, Wisconsin on June 13, 2013 as catalogued by the Weather Underground (www.weatherunderground.com).
- D. National Highway Traffic Safety Administration (NHTSA) Office of Defects Investigation Safety Recall Information. (www.nhtsa.dot.gov)
- E. CarFax Vehicle History Reports (www.carfax.com)