

## SUPPLEMENTAL RECONSTRUCTION REPORT

CASE NUMBER: **2015-076-SER**

REPORTING RECONSTRUCTIONIST: Trooper Michael Smith

CRASH TYPE: Class I



(800) 375-7302  
March 14, 2015

### - FORWARD -

*Crime Reconstruction is a comprehensive subject with many facets and specialty fields. The primary responsibility of the investigation is to document and preserve all available physical evidence. The following reconstruction is limited to the subjects stated herein. The author and the Wisconsin State Patrol reserve the right to conduct a more extensive analysis of the available material on a later date as necessity dictates.*

### REQUEST FOR ASSISTANCE:

On March 14, 2015, I was contacted by the Wisconsin State Patrol Southeast Communications Center. I was requested to respond to an officer involved shooting that occurred at 2103 56<sup>th</sup> Street, in the City of Kenosha, Kenosha County, Wisconsin. Arriving at the scene at approximately 11:47 p.m., I met with State of Wisconsin - Department of Justice Special Agents James Sielehr, David Klaubunde, and Christina McNichol.

I was informed that in the morning hours of March 14, 2015, a pursuit involving a City of Kenosha Police cruiser and a [REDACTED] automobile occurred. The operator of the [REDACTED] was suspected of having several active warrants for his arrest. At the time of the pursuit the [REDACTED] was traveling south on 22<sup>nd</sup> Avenue. The operator of the [REDACTED] attempted to turn left onto 55<sup>th</sup> Street at a high rate of speed when the vehicle struck a parked car located at a residence on 55<sup>th</sup> Street. The operator of the [REDACTED] exited the vehicle and fled the scene on foot. The pursuing officer exited his vehicle and chased the suspect on foot. The foot pursuit traveled thru several residential and commercial properties. After chasing the suspect for approximately 800 feet, the officer confronted the suspect inside an auto body repair garage. Several gun shots were fired inside the business. The suspect was fatally injured as a result of the incident.

### FORENSIC MAPPING OF THE SCENE

To obtain an accurate scaled diagram for the area surrounding the incident, Trooper Peter Moe and I performed a detailed mapping using a [REDACTED] Total Station. The total station is an electronic survey instrument [REDACTED]

[REDACTED] The [REDACTED] also has prismless capabilities, known as direct reflect technology. Additionally, the [REDACTED] has a detached data collector that

communicates with the machine using a 2.4 gigahertz radio. The [REDACTED] systems measure the angle and distance to points of interest. The measurements are stored electronically by the data collector and are later downloaded for processing. The downloaded data is imported into Computer Aided Drawing (CAD) software in order to create a scaled drawing of the crash scene. This instrument allows for data points to be measured in three-dimensions, thereby mapping roadways, evidence locations, and contiguous terrain with a high degree of accuracy.

Included in the evidence gathered was the topography surrounding the incident scene, motor vehicles, roadways, sidewalks, and evidentiary items identified by investigators. A scale diagram was created and is appended to this report.

Trooper Deb Reis completed the Wisconsin Motor Vehicle Accident Report for the crash that occurred on 55<sup>th</sup> Street. Trooper Ryan Zukowski scanned the interior of the auto body business located at 2103 56<sup>th</sup> Street.

#### **CASE SUMMARY:**

All available information and documented evidence was forwarded to the Department of Justice – Division of Criminal Investigation. This concludes my involvement in this investigation at this time.

This is the end of this supplement report written on today's date, April 7, 2015.

Respectfully submitted,




Trooper Michael Smith, ACTAR 2154  
Accredited Reconstruction Specialist  
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# WISCONSIN STATE PATROL TECHNICAL RECONSTRUCTION UNIT SCENE DIAGRAM(S)

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# WISCONSIN STATE PATROL SUPPLEMENTAL REPORT(S)

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## SUPPLEMENTAL REPORT

CASE NUMBER: **2015-076-SER** RD: **15-007286/15-007287**

REPORTING RECONSTRUCTIONIST: **Trooper Peter M. Moe**

INCIDENT TYPE: **Crash and Crime Scene Mapping**



March 17, 2015

### Request for Assistance:

On March 14, 2015, at approximately 11:00 a.m., this author was requested by Sergeant Thomas Erdmann to assist Trooper Michael Smith with the forensic mapping of a police pursuit that resulted in a crash, and an officer involved shooting in Kenosha, Wisconsin. I responded from Watertown, Wisconsin and arrived on scene at approximately 12:30 p.m. The crash originated near the intersection of 22<sup>nd</sup> Avenue and 55<sup>th</sup> Street and the shooting scene was located at 2103 56<sup>th</sup> Street. Upon my arrival, I made contact with Trooper Smith who briefed me on the facts surrounding the incident. He stated the involved Kenosha Police Squad was pursuing the involved [REDACTED] southbound on 22<sup>nd</sup> Avenue. The [REDACTED] attempted to turn left onto 55th Street. The Plymouth traveled over the south curb of 55th Street and continued easterly where it crashed into a tree and parked car in front of 2121 55<sup>th</sup> Street. The [REDACTED] continued northerly and came to rest near the north curbing of 55<sup>th</sup> Street. The operator the [REDACTED] exited the vehicle and ran south along the east side of 2113 55<sup>th</sup> Street. The Kenosha Police Squad stopped on the front concrete pad in front of 2113 55<sup>th</sup> Street and the officer pursued after the suspect on foot.

### Forensic Mapping:

Trooper Smith and this author surveyed the roadway, vehicles and other items of evidentiary value utilizing the [REDACTED] Total Station survey instrument (**Figure 1**). We surveyed a path of evidence marked by Division of Criminal Investigation Agents. The paths led us east/southeast through a backyard of 2113 55<sup>th</sup> Street, over two yard divisional fences, and southeast into an industrial business area. The marked path continued southwest, crossed 55<sup>th</sup> street, and south along the east side of an auto body repair facility. At the southeast corner of the auto body facility, we traversed back west towards the open garage door on the south side of the business. The shooting took place inside the auto body repair business.



Figure 1  
[REDACTED]  
Total Station

This device is an electronic survey instrument [REDACTED]

[REDACTED] s a robotic total station with prismless capabilities, known as *direct reflex* technology.

Additionally, the [REDACTED] has a detached data collector that communicates with the machine using Bluetooth technology, which allows the operator to collect data alone. The theodolite and EDM system then record the angle and distance to the prism.

Utilizing a [REDACTED] Scanner, Trooper Ryan Zukowski scanned the interior of the auto body repair business (**Figure 2**). This [REDACTED] Scanner is a 360-degree scanning instrument that references spherical and dimensional targets to create three dimensional (3-D) cloud point data. It produces three-dimensional color/black/white imagery where every pixel has an X, Y, Z coordinate. After scanning, objects can be generated to create dimensionally accurate CAD models.

Utilizing the [REDACTED] total station, Trooper Smith surveyed specific data reference points to the interior of the business that would merge the [REDACTED] and [REDACTED]. Scanned data together into a continuous survey. All data was turned over to Trooper Smith to be merged with Trooper Zukowski's [REDACTED]. Scanning of the interior shooting scene into a scale diagram of the two scenes.



*Figure 2 [REDACTED] Scanner.*

### Speed Analysis

One methodology used to determine the speed of the [REDACTED] at the beginning of the yawing tires in the southbound lane of 22<sup>nd</sup> Avenue was the critical speed yaw formula (CSY). The application of this method requires the calculation of the radius of a circle. The CSY approach requires the radius of the circle that the center of mass of the vehicle is traveling as it is yawing. A vehicle is in a critical speed yaw when the lateral forces from the attempt to turn, overcome the friction available at the vehicle tire and roadway interface. Measurements needed to calculate the CSY are the chord and middle ordinate from the yaw marks, and the coefficient of friction of the road surface. At the crash scene, Trooper Smith and this author evaluated the radius traveled by the visibly rotating right-front tire mark. We measured a fifty-foot chord, with a 2.25 feet middle ordinate measured at the twenty-five foot mark to the outside edge of the tire mark. Utilizing the appropriate inputs, the calculated speed of the [REDACTED] near the beginning of the rotating tire marks was 38 to 42 mph. The speed limit in the area surrounding the crash was 25 mph.

**Summary:**

This report documented my current involvement in this scene. Any future involvement in the continuing investigation of this scene will be covered in additional supplemental reports.

Respectfully submitted,



Trooper Peter M. Moe  
**Technical Reconstruction Unit**  
Accredited Crash Reconstructionist - **ACTAR #2709**  
Bureau of Public Security and Communications  
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