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VALERIE WYANT, CLERK

17 FEB 28 PM 3:41

FILED

8 **IN THE SUPERIOR COURT OF THE STATE OF ARIZONA**  
9 **IN AND FOR THE COUNTY OF COCONINO**

10 STATE OF ARIZONA,

No. CR2015-00862

11 Plaintiff,

MOTION FOR ADMISSION OF LEICA  
SCAN

12 vs.

(Honorable Dan Slayton- Division 2)

13 STEVEN EDWARD JONES,

14 Defendant.

15 COMES NOW the State of Arizona, by and through the undersigned deputy, and  
16 moves for the admission of the "Leica Scan" of the scene of the murder. The State offers  
17 this notice that it intends to use a "Leica Scan" as demonstrative and potentially as  
18 substantive evidence during the trial of this case. The Leica Scan is the product of a  
19 scene recording system employed by investigators in this matter. Detectives at the scene  
20 of the murder recorded a huge amount of data by use of a Leica Scanner deployed to  
21 several locations at the scene.

22 The Leica Scan technology represents the most up to date method of bringing a  
23 crime scene into the courtroom. The scanner is placed in a stationary location and  
24 surveys its surroundings by shooting up to a million laser points per second as it rotates  
25 360 degrees. The scanner takes precise measurements of the topography of the area as  
26 well as the distance and height/width of objects within its line of sight. All of the points  
are recorded and compiled into a "point cloud." The scanner also takes photos as it rotates

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1 around and lays the photos over the point cloud creating essentially a 360 degree, three  
2 dimensional photograph. This 360 degree three dimensional photograph gives the viewer  
3 the ability to interact with the photographed environment.

4 The scanner can be used at several different places, and the technology will stitch  
5 all of the point clouds together, creating one large point cloud. This allows the viewer to  
6 view any direction that the scanner recorded, from any point within the point cloud. The  
7 scan is, of course, only able to record that which is within its line of sight.

8 The viewer can also make point to point measurements within the cloud. The  
9 manufacturer indicates that the scan measurements are accurate to a standard of 3mm  
10 at 50 meters, or to an eighth of an inch at 164 feet. The scanner has an internal calibration  
11 ensuring the accuracy of the measured distances. A user has the option, which was  
12 employed in this investigation, for a redundant confirmation of calibration. This procedure  
13 involves use of a known distance measurement within the scan. Out of an abundance of  
14 caution, the State asked a detective to physically measure certain distances at the scene  
15 with a calibrated rolling measurement stick, and compare their results to those given by  
16 the scan. The comparison of those measurements to the measurements produced by  
17 the scan revealed the scan's accuracy.<sup>1</sup>

18 The State intends to utilize the scan in the same manner as a photograph or a  
19 video would be used at trial. The scan is the same as a photo or video in that a witness  
20 would simply need to authenticate the image by testifying that it accurately depicts the  
21 area or object contained there-in. As such, it will be very useful to witnesses testifying  
22 about where they were within the scene, and the direction they were looking. The system  
23 allows the printing of still photos that could be admitted as individual exhibits if necessary.<sup>2</sup>  
24 In other words, a witness could make reference to a point of view, or indicate the location  
25 of an object within the scan, and a still photo could be printed and entered into evidence.  
26

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1 Attachment A Rucker Supplement, bates 001715-001718.

2 Attachment B- Still photos printed while navigating the scene within the scan. Note that the sun was rising while the original scan was working, and one photo shows the darkness yielding to light.

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1 The State does not intend to offer the scan itself into evidence.

2 Finally, the scan creates such a comprehensive and precise measurement of the  
3 scene, that the data can be used to create a "top down" or a "bird's eye" depiction of the  
4 scene. An example of such a depiction is attached.<sup>3</sup> The example is a depiction of the  
5 entire scene including parking spaces and vehicles parked in those spaces.

6 The only requirements for admission of this evidence are admissibility and  
7 authentication. The State raises the issue at this time so both parties and the Court are  
8 familiar with the system, and time needn't be spent determining admissibility and  
9 accuracy during the trial.

10  
11 RESPECTFULLY SUBMITTED this 28<sup>th</sup> day of February, 2017.

12  
13 WILLIAM P. RING  
COCONINO COUNTY ATTORNEY

14 By B. Shea  
15 Bryan F. Shea  
16 Deputy County Attorney

17  
18 COPY of the foregoing  
19 mailed/delivered this  
20 28<sup>th</sup> day of February, 2017,  
21 to:

22 The Honorable Dan Slayton  
23 Division 2  
24 Coconino County Courthouse  
25 Flagstaff, AZ 86001

26 Burges McCowan, Esq.  
Joshua Davidson, Esq.  
Defense Counsel

By: [Signature]

<sup>3</sup> Attachment C, top down views generated with the scan.

# Attachment A



Kevin Treadway  
Chief of Police

## Flagstaff Police Department

911 E Sawmill Rd Flagstaff AZ 86001  
(928)774-1414

Case Number: **P15-14930**

### Incident/Investigation Report

### Supplement Information

<b>Supplement Date</b> 08/08/2016 16:48:26		<b>Supplement Type</b> SUPPLEMENTAL COMPLETED		<b>Supplement Officer</b> RUCKER, CASEY A	
<b>Contact Name</b>			<b>Common Place Name</b> : @MOUNTAIN VIEW HALL		
<b>Case Status</b> INFORMATION OR NON-CRIME (24)				<b>Forced Entry</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>Felony/Misd/NC</b> NON CRIME
				<b>DV Related</b> N	
<b>Case Disposition</b>		<b>Connecting Reports</b> 1. N1501144    2.                    3.                    4.			
<b>Investigator Assigned</b>			<b>Supervisor</b>		

### Supplement Notes

**Offense:** Assist other Agency  
**Connecting Report Number:**  
**Assigned Status:** 24  
**Disposition:** 24  
**Report Date:** 10/14/2015  
**Supplement Date:** 8/8/2016

**Attachments:**  
-Google Map of scene printed on 8/8/2016 #609  
-Color print of scene photo depicting location of suspect vehicle #609

Dissemination is restricted to  
Criminal Justice Agencies ONLY  
Flagstaff P.D.  
Rel. To: Coconino County Attorney

**Synopsis:**  
On 8/8/2016, I measured three points at the scene and later compared those measurements to those taken from the Leica scan station.

**Narrative:**  
On 8/8/2016, at approximately 1017 hours, I responded to the NAU stadium / Mountain View dorm parking lot. Utilizing a hand held Rolatape measuring device commonly used when measuring distances at motor vehicle accidents and other outdoor scenes, I took three measurements of the three separate areas within this scene. Prior to taking any measurements, I printed an aerial photograph from Google Maps to illustrate the location of the points measured. I labeled each of these measurements A, B, and C. I also printed a color photograph from the original scene photos, which depicted the location of the suspect vehicle. Each of the Rolatape measurements were later compared to the same area measurements taken by the Lieca Scan station.

The first measurement (measurement "A") was taken curb to curb, north and south across E. Franklin Ave, using the APS power pole #S374243 at the reference point. That Rolatape measurement was taken twice.  
Rolatape measured 39'1", and 39'2".  
Lieca measured 39.3"

The second measurement (measurement "B") recorded the distance of the concrete sidewalk located east of the parking lot. I used the southern edge of the asphalt driveway as the reference point. That Rolatape measurement was taken twice.  
Rolatape measured 21'2", and 21'4"

Case Number: **P15-14930**



Kevin Treadway  
Chief of Police

## Flagstaff Police Department

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### Incident/Investigation Report

## Supplement Notes

Lieca measured 21.29'

The third measurement (measurement "C") recorded the distance from the south east corner of the 5th parking stall to the south east corner of the asphalt parking lot. That Roaltape measurement was taken twice.

Rolotape measured 92'3", and 92'6"

Lieca measured 91.68'

This report will be routed to the Coconino County Attorney's Office.

Detective Rucker #609

Supervisor: Sgt. Beckman #706

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Flagstaff P.D.  
Rel. To: Coconino County Attorney

Case Number: **P15-14930**

Go gle Maps 2015-14930, printed 8/8/2016. Det. Rucker #609



Imagery ©2016 Google, Map data ©2016 Google 20 ft

Illustration of POINTS MEASURED by DET. RUCKER ON 8-8-2016  
#609

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Flagstaff P.D.  
Rel. To: Coconino County Attorney

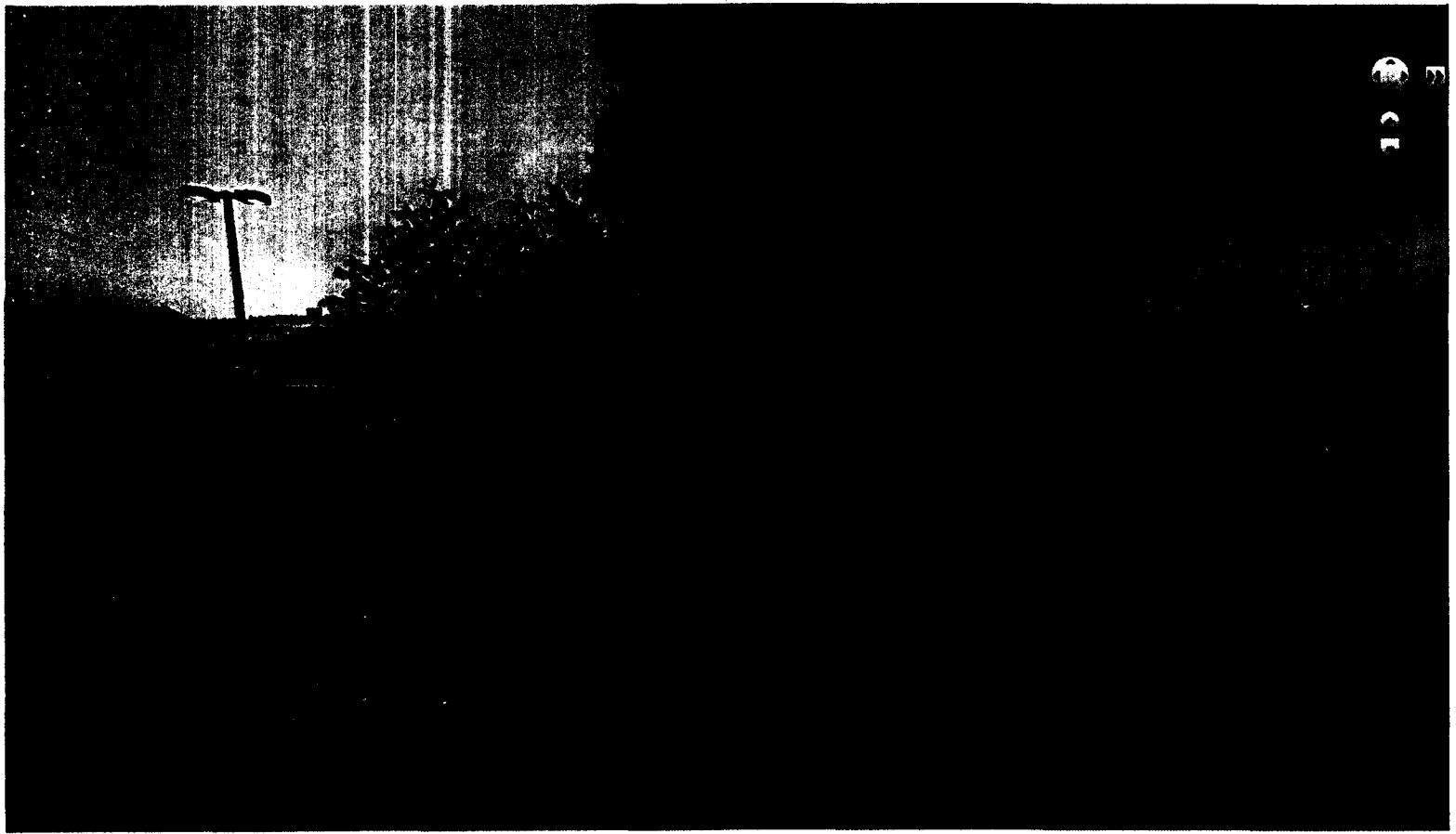
2015-14930

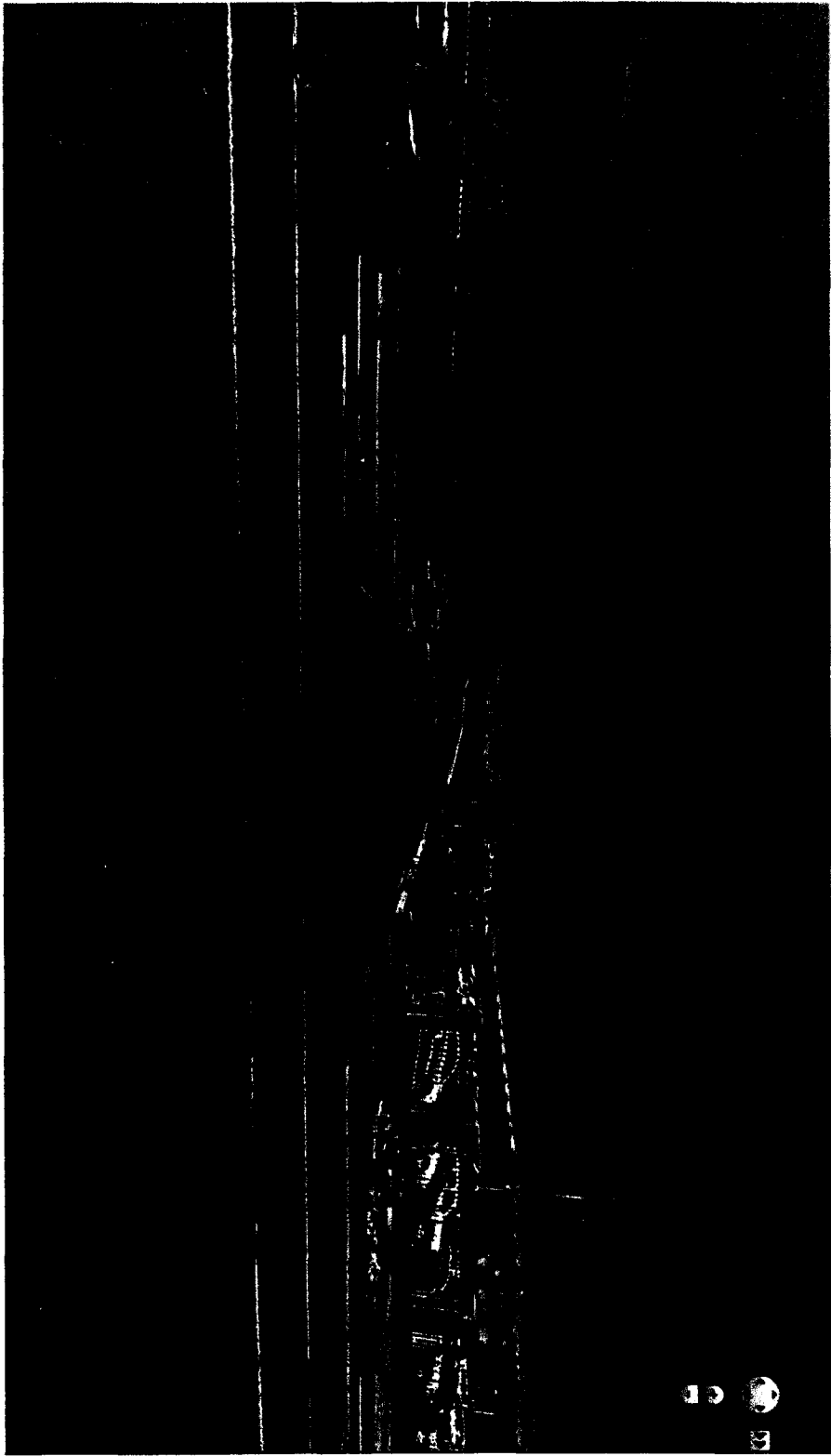


001718

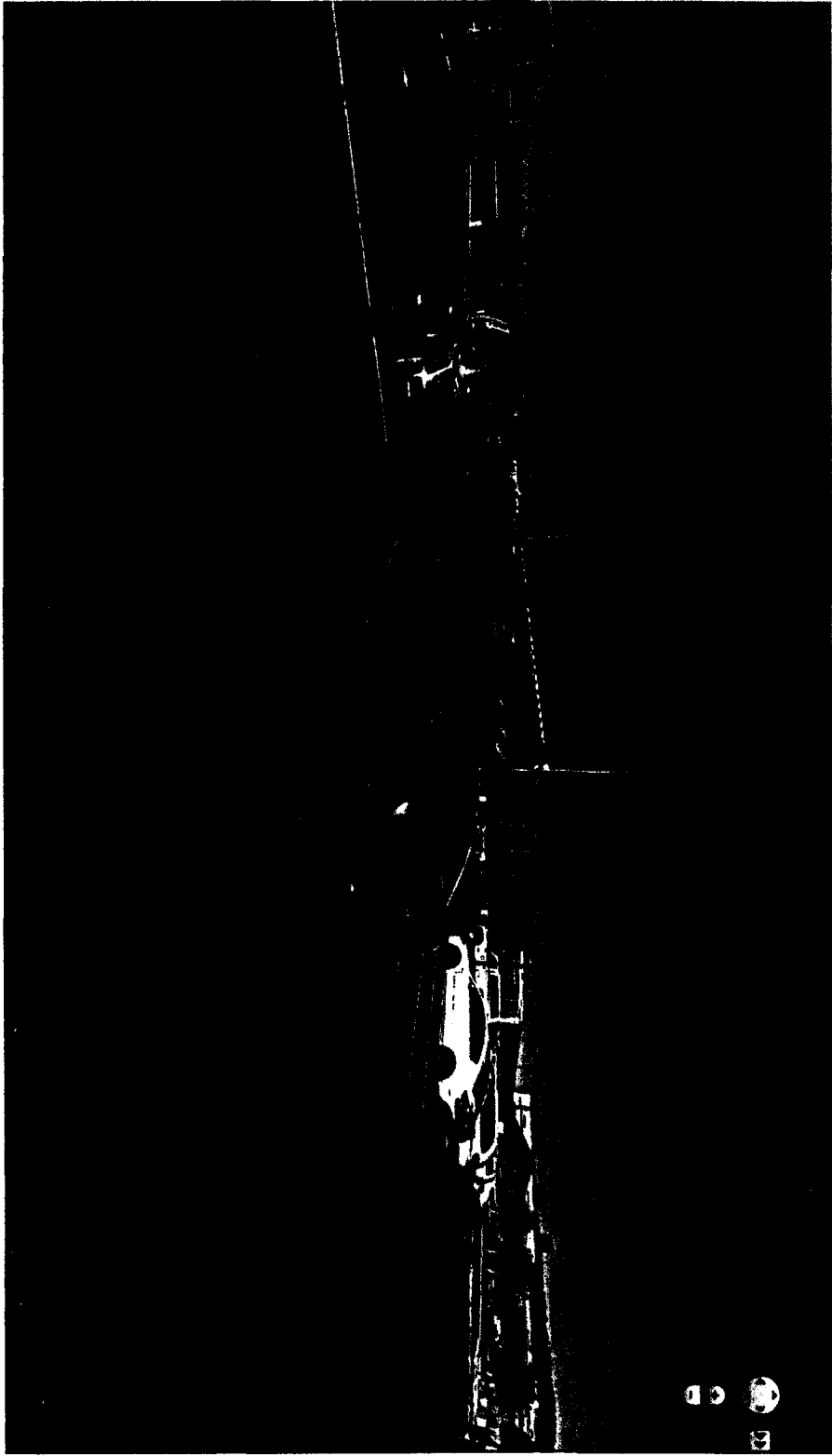


# Attachment B

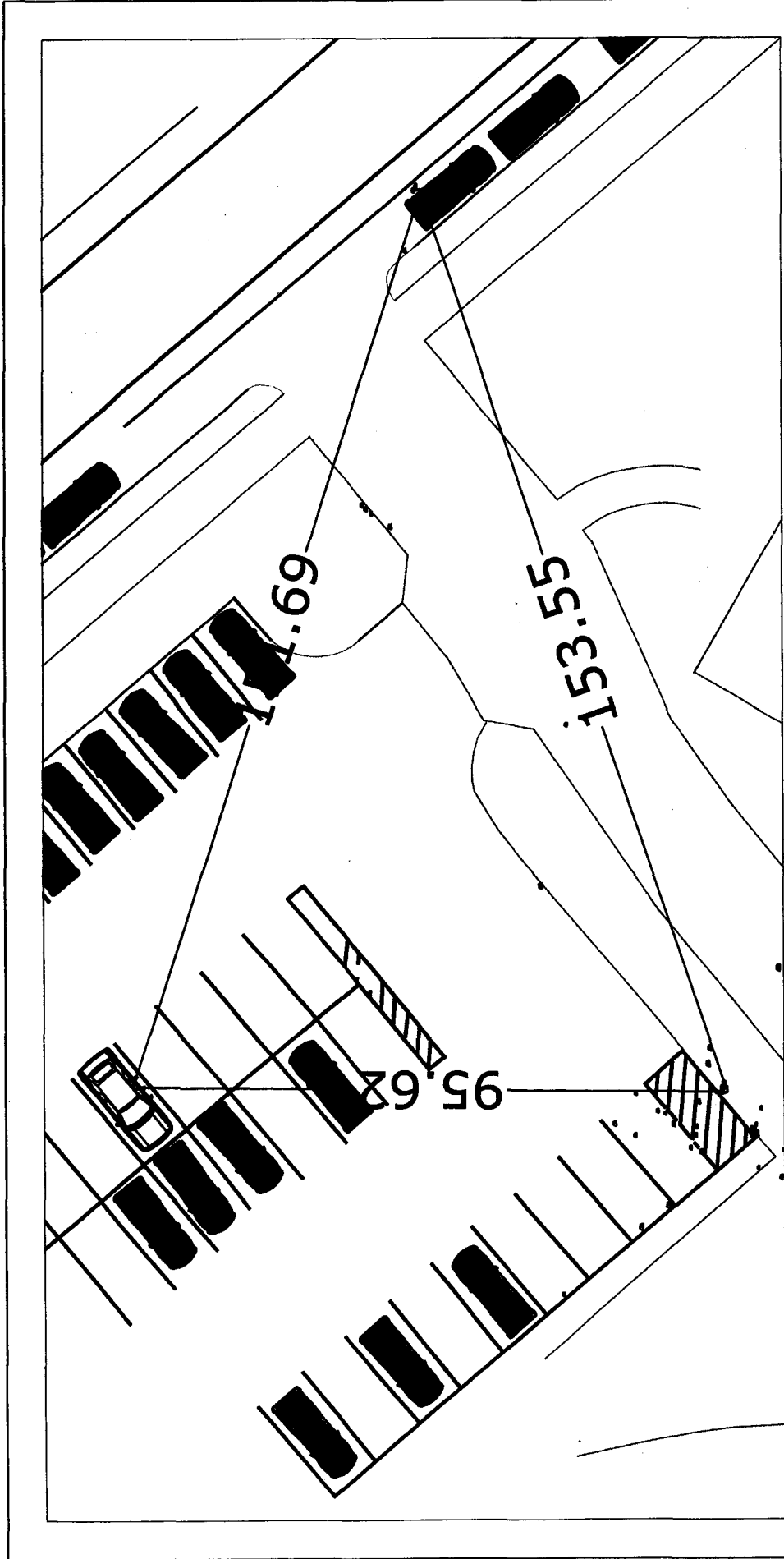








# Attachment C



**Date of Occurrence:**  
10/09/2015

**Name:**  
Steven Jones- Homicide

**Location:**  
NAU Campus P7A

**City or Area:**  
Flagstaff Arizona

**Investigating Agency:**  
NAU Police Department

**Assisting Agency:**  
Flagstaff Police Department

**Lead Investigator:**  
Sgt O'Hagan

**Date of Sketch:**  
01/26/2017

**FPD DR Number:**  
P15-14930

**Drawn By:**  
Det Rucker

