MISSOURI STATE HIGHWAY PATROL
MISSOURI UNIFORM CRASH REPORT
TECHNICAL SUPPLEMENT

CRASH DATE	SUPP RPT DATE	TRP / DIST / PCT	COUNTY	REPORT / CASE / INCIDENT NUMBER
08/10/2018	10/10/2018	C	St. Louis (095)	180491040

SUPPLEMENT REPORTING OFFICER	DSN / BADGE	SUPPLEMENT REVIEWING OFFICER	DSN / BADGE
Sgt. Paul J. Kempke	982	Sgt. J. A. Mulkey	1186

Synopsis:
On Friday, August 10, 2018, at 2137 hours, there was a one vehicle crash in St. Louis County, on Airport Road, 15 feet after Airport Elementary School. The original investigating officer was Trooper Z. Micks, #475, C-01. According to the Missouri Uniform Crash Report the crash involved a 2003 Hyundai Elantra. It was occupied by the driver and one passenger. Their identities may be found in the original crash report. In this narrative they will be referred to by their assigned title and number, i.e. Driver #1 and Passenger #1.

Prior to the crash sequence, the driver of Hyundai was failing to yield to a St. Louis County Police vehicle. The crash occurred when the driver of the Hyundai made an improper steering maneuver to the right, causing the vehicle to enter into a yaw. The Hyundai traveled off the north side of the road where it struck a sign, guy-wire, and a trash receptacle before it broadsided a tree. The Hyundai rotated around the tree before it came to rest. Both occupants were ejected from the vehicle and died as a result of injuries sustained in the crash.

Troop C dispatch contacted me at approximately 2220 hours and advised me of the crash. I traveled to the scene, arriving at 2344 hours. I spoke with Trooper Z. Micks, #475, C-01 and Corporal B. Teague, #1385, C-01. They explained the crash circumstances as they understood them at that time. There appeared to be varying accounts of the crash. Some people at the scene were stating the St. Louis County Police were actively attempting to stop the vehicle when the crash occurred. One version indicated the police had terminated their pursuit further to the east. Another version indicated the St. Louis County Police vehicle “pitted” the Hyundai and caused it to crash. My investigation broadened to to include the actions of both the driver of the Hyundai and the St. Louis County Police prior to the crash.

During the course of my scene investigation, I mapped and photographed the roadway and visible evidence. I photographed the Hyundai and examined it. When I examined the rear bumper cover and right rear quarter panel, I found no evidence indicating the police vehicle made contact with the Hyundai. The front of the St. Louis County Police vehicle was photographed. No damaged relating to this crash was discovered.

On August 16, 2018, I traveled to Doc’s Towing, 2810 Walton Road, St. Louis, Missouri. At the tow yard I took addition photos of the Hyundai and conducted a further examination of the vehicle.

On August 30, 2018, Sgt. Paul Meyers, Sgt. James Mulkey, MSgt. Mike Broniec, and I met at the crash site. Sgt. Meyers and Sgt. Mulkey mapped a large portion of the roadway. Sgt. Broniec assisted me with mapping the camera views from the Family Dollar store, the Airport Elementary School, and the Precious Days Learning Academy. The three maps were combined into a single map.

On September 18, 2018, MSgt. Broniec, Tpr. Mendez, and I traveled to the crash site. Patrol vehicles were placed in pre-calculated positions to determine sight lines.

Vehicles:
Vehicle #1 was a 2003 Hyundai Elantra. Its VIN was KMHDN45D93U600594. It displayed Missouri registration YJ1H0S. The license plates were registered to a 1999 Pontiac owned by an individual from

Berkeley, Missouri. The vehicle was registered last to a person from Waterloo, Illinois. A check on website Recalls.gov indicated there were no open recalls for Vehicle #1. A Carfax® inquiry indicated Vehicle #1 had at least four owners from the date it was first purchased to the date of the crash. The last entry in the Carfax report indicated the vehicle was sold at auction. The purchase was not recorded. According to the Carfax® report, in 2005 the Hyundai sustained enough damaged that it required rebuilding and a salvage title was issued. The last reported mileage for Vehicle #1 was 191,345 (March 2018). The mileage was reported by the auto auction.

When looking at the front of the vehicle, I noted the front bumper cover was missing. At the scene, I located it in a driveway, west of the final rest location. The left headlight assembly was also missing. The hood was misaligned and the windshield was shattered and torn.

On the left side of the vehicle, the front fender was dented above the front tire and wheel. The front tire was a Goodyear Eagle RS. There was 7.5 p.s.i. of air in it and the tire tread was above the wear bars. Grass was embedded between the tire and the wheel. The wheel was bent, likely due to the impact with the curb. Both left side doors had significant lateral crushing and their glass was shattered. The crushed length measured approximately 85 inches (longitudinal). The maximum intrusion appeared to be around 21 inches (lateral). Wood was found imbedded in some of the sheet metal seams. The rear fender was creased and crushed in longitudinally. The rear tire was a Mirada Sport GTX. The tire was in poor condition, the rubber was dry rotted and the chords were showing. At the time of my examination, there was no air pressure in the tire and the tread was below the wear bars. I located impact damage to the wheel. Like the front left wheel, this damage was likely caused by an impact with a curb.

On the rear of the vehicle, the bumper cover was torn off. At the scene, it was located in the grass, east of the final rest location. The bumper cover had damage to it, but none that could be associated with the vehicle being “pitted” by another vehicle. The left taillight assembly was missing. The right taillight assembly remained intact. It was still illuminated when I arrived on the scene, the night of the crash. The truck lid was torn from the vehicle during the crash. It was found a short distance north of the area of impact. The back glass was shattered.

On the right side of the vehicle, the rear fender was crushed above the tire and wheel. The rear tire was a Bridgestone Turanza. The tire had 11 p.s.i. in it and the tread was below the wear bars. Grass was found between the tire and wheel. The tire and wheel were displaced forward. Both right side doors had induced denting and were misaligned. The window in the front door was down and not shattered. The window for the rear door was shattered. The front fender also had induced dents. The front tire was a Goodyear Eagle. The tire was flat and the tread depth was above the wear bars.

All four brakes were inspected. The discs, drums, and pads appeared to be in functioning condition.

Inside of Vehicle #1, the driver’s front airbag did not deploy but the left seat mounted airbag did deploy. The steering wheel was misshapen. The dashboard was shattered and compressed laterally. The odometer was electronic. The speedometer was stuck at 16 miles per hour. Stuck speedometers often do not reflect the speed of the vehicle at impact. There was significant intrusion into the occupant compartment. The driver’s seat was folded and crushed. It measured 6 inches wide and it was displaced to the right. The center console was crushed and displaced to the right. The right front passenger seatback was bowed in slightly.

Occupants:
Driver #1
Driver #1 had a suspended, Class F, Missouri Driver License. He had numerous actions and convictions on his driving record. The majority of the convictions occurred 20 years prior.

Driver #1 was not wearing a seatbelt at the time of the crash and was ejected out of the vehicle. Paramedic Fiesler with Berkeley Fire Department found no signs of life in Driver #1 at approximately 2159 hours. Lonning Mortuary Service transported Driver #1 to the St. Louis County Medical Examiner's Office.

Due to his injuries, no statement was obtained.

Passenger #1
Passenger #1 was seated in the front right seat of Vehicle #1. Passenger #1 was not wearing a seatbelt and he was ejected from the vehicle.

Paramedic Guillians with the Berkeley Fire Department found no signs of life in Passenger #1 at approximately 2144 hours. Lonning Mortuary Service transported Passenger #1 to the St. Louis County Medical Examiner's Office.

No statement was obtained from Passenger #1.

Witness #1
Witness #1 provided a statement. Witness #1 stated, "I was driving eastbound on Airport Road when I came about a car speeding at about 60 miles per hour going west. I turned and looked and saw a St. Louis County Patrol car, white. The gold car swerved and then crashed, almost hitting myself when they swerved."

Scene:
The crash occurred on Airport Road, 15 feet after Airport Elementary School at approximately 2137 hours. At the time of the crash, the moon had already set. The nearest weather station with archived data was Lambert International Airport. At 2151 hours, the weather station recorded a temperature of 78°. The dew point was 70° and the relative humidity was 82%. The winds were calm and the sky was mostly cloudy.

The roadway, in the area of the crash, tracked east/west. As one traveled westbound, leading up to the crash site, the roadway had an uphill grade. The road curved to the right and then a short distance later it curved to the left and traveled down grade. The roadway consisted of two eastbound lanes and two westbound lanes. There were no physical barriers separating the eastbound lanes from the westbound lane, just painted centerlines. Near the center of the S-curve, a painted crosswalk traversed the roadway. Traffic signals controlled traffic at the crosswalk. At the crash site, and extending to the west, there was a center turn lane. A line of utility poles ran along the south side of the roadway. Streetlights were mounted on several of them in the area of the crash. A streetlight was mounted on a utility pole on the north side of the street, in the area where Vehicle #1 came to rest. Additionally, there were numerous businesses and residences, in the area, which would have provided some ambient light.

On the evening of the crash, I used a Sokkia IX total station and a Sokkia SCH5000 data collector to map the roadway in the area of the crash and the visible evidence. Walking through the scene from east to west, the first items mapped were a small piece of red plastic located a short distance west of the cross

walk and a 48 foot faint tire mark, which started at the stop line located on the eastbound side of the roadway, west of the cross walk and extended west. Neither the plastic not the tire mark could be reconciled to Vehicle #1. The first evidence related to the crash sequence was a yaw mark from the front left tire of Vehicle #1. The mark started in the left turn lane on the eastbound side of the roadway. The mark was 152 feet long and arced to the curb on the north side of the roadway. Approximately 60 feet to the east, I located yaw marks from the rear left tire and the front right tire. Both tire marks also arced toward the curb on the north side of the roadway. Further to the west, a yaw mark from the rear right tire was found on the roadway. A large soil gouge was located in the grass between the sidewalk and the roadway at the end of the yaw marks from the front tires of Vehicle #1. Another tire mark from the rear right tire was also located in the grass, west of the gouge. In the grass, north of the sidewalk, I located another tire mark from the front left tire. The end of the mark curled. This occurred when the vehicle began to rotate around a tree. The tree that was stuck by Vehicle #1 was approximately 12 feet north of the roadway. Two soil gouges were located on the north side of the tree. They were created as Vehicle #1 rotated. Vehicle #1 came to rest facing southeast, approximately 19 feet north of the roadway.

On August 30, 2018, I returned to the crash site with Sgt. Paul Meyers and Sgt. Jim Mulkey. Together, we used three Sokkia GCX3 GPS receivers and three Sokkia SCH5000 data collectors to map over 1900 feet of roadway. In addition to mapping the roadway, I mapped the camera view borders for the camera located at the Airport Elementary School, the Family Dollar store, and the Precious Days Learning Academy.

Findings:
A technical investigation is normally limited to the actions of the vehicle(s) actively involved in the crash. Vehicle #1 was being pursued by a police vehicle prior to the crash. Its location and actions are included in this narrative.

The finding are based on videos from Family Dollar, Precious Days Learning Academy, Airport Elementary School, and Jenny's Market, GPS data from the St. Louis County Police vehicle, and evidence from the crash scene. The times on the videos are not synced.

The earliest view of the St. Louis County Police Vehicle and the Hyundai was from Jenny Market, 929 Airport Road. The Hyundai enters into view of the camera at 09:36:33.33. The police car comes into view at 09:36:36.33. At one point, both vehicles are on the screen. The gap between the vehicles was approximately 3 seconds.

Precision Days Learning Academy was located at 8119 Airport Road. The Hyundai appeared to enter into view at 08:35:42 and exits at 08:35:44. By counting frames, I determined the Hyundai takes 1.64 seconds to travel across the viewable area. The St. Louis County Police vehicle came into view at 08:35:45 and exits at 08:35:46. By counting frames, I determined the police vehicle took 1.72 seconds to travel across the viewable area. The gap between the two vehicles was 2.4 seconds.

Using the mapping data Sgt. Meyers, Sgt. Mulkey, and I obtained, I was able to measure the length of the camera view along the dashed lane lines. That distance was 223 feet. Using that distance and the times listed above, the Hyundai was traveling; $223 \div 1.64 = 135\ fps$ or 92.7 miles per hour. The St. Louis County Police vehicle was traveling: $223 \div 1.72 = 129\ fps$ or 87.9 miles per hour. These calculated speeds may be higher or lower depending on the lane position of the vehicles and are averages over the distance. GPS data from the St. Louis County Police vehicle suggested it was likely traveling between 90 and 94 miles per hour. The sampling rate was once every 10 seconds.

Airport Elementary School was located at 8249 Airport Road. In the video from the school, the Hyundai enters into the video at 58.66 seconds and exits at 59.93 seconds. Its total time in the video was 1.27 seconds. The St. Louis County Police vehicles enters the video at 1:02.53 and exits at 1:04.93. Its total time in the video was 2.4 seconds. The gap between the two vehicles was 3.8 seconds. At approximately 1:02.92, the overhead lights on the police vehicle are off.

Using the map data again. I determined the Hyundai traveled approximately 154 feet in the camera view and the St. Louis County Police vehicle traveled approximately 152 feet (smaller arc than the Hyundai). Based on the times above, the Hyundai was traveling $154 \div 1.27 = 121\ fps$ or 82 miles per hour. The police cruiser was traveling $152 \div 2.4 = 63\ fps$ or 43 miles per hour. These calculated speed may be higher or lower depending on the lane position of the vehicles and are averages over the distance.

On the night of the crash, I measured a chord and middle ordinate from the Hyundai's front left tire mark. The chord was 60 feet and the middle ordinate was 0.75 feet. Those factors resulted in an unadjusted radius of 600 feet. Additionally, I pulled a drag sled to determine the drag factor. I made 10 pulls with my 30 pound sled. The average of pulls was 21.6 pounds. The calculated drag factor was 0.72. Using a critical speed formula, I calculated the speed of the Hyundai at 80 miles per hour.

In the video from the elementary school, a dark, uninvolved vehicle enters the view at 54.467 seconds. It exits at 57.533 seconds for a total travel time of 3.06 seconds. It is traveling $152 \div 3.06 = 49\ fps$ or 33 miles per hour. The time between the Hyundai and the uninvolved dark vehicle is approximately 4.2 seconds.

The last video I used in my analysis was from Family Dollar, 8320 Airport Road. On the video provided to me, the uninvolved dark vehicle appeared at 9:11.58. At 9:12.65, the Hyundai appeared in the video. The gap between the vehicles was down to 1.06 seconds. The Hyundai strikes the tree at approximately 9:13.18. At 9:18.25, the St. Louis County Police vehicle appeared in the video. The gap between the police car and the Hyundai is now 5.6 seconds. The St. Louis County Police vehicle leaves the field of view at approximately 9:20.56. It is in the field of view for 2.31 seconds while it traveled for approximately 196 feet. Its speed was $196 \div 2.3 = 85\ fps$ or 58 miles per hour. The St. Louis County Police vehicle's GPS indicated it was traveling 60 miles per hour.

I computed the distance range between the St. Louis County Police vehicle and the Hyundai, when the Hyundai entered into the view of the Airport Elementary School. The low end of the range was

computed by determining how far behind the police vehicle would be if it was driving at a constant speed of 43 miles per hour or 63 feet per second, $63 \times 3.8 = 239.4$ *feet* .

I calculated the distance if the St. Louis County Police vehicle was traveling 94 miles per hour and the driver applied maximum braking to bring the vehicle to 43 miles per hour at the start of the camera view

$$\left(94^2 - 43^2\right) \div \left(30 \times .75\right) = 310.533 \, feet$$
$$138.8 \times .7 = 96.4 \, feet$$
Total distance = 406.9 *feet*

In order to demonstrate the relative distance between the St. Louis County Police vehicle, the Hyundai, and the dark colored vehicle traveling in front of the Hyundai, I created an animation in Virtual Crash 4 software. In the software, four vehicles were created, two representing the police vehicle, one representing the Hyundai, and one representing the uninvolved vehicle. One of the representations of the police vehicle starts out traveling at 94 miles per hour. The vehicle then decelerates to 44 miles per hour as it enters into the Airport Elementary School camera view. I used a deceleration value of 0.78 which is slightly greater than the later estimated value of 0.75 (.72 +.03grade). This increased the distance the St. Louis County Police vehicle was from the border of the camera view, at the start. The police vehicle leaves the camera view at 42 miles per hour for an average speed of 43 miles per hour. As the St. Louis County Vehicle leaves the camera view it accelerates up to 58 miles per hour, the calculated average speed in the Family Dollar video.

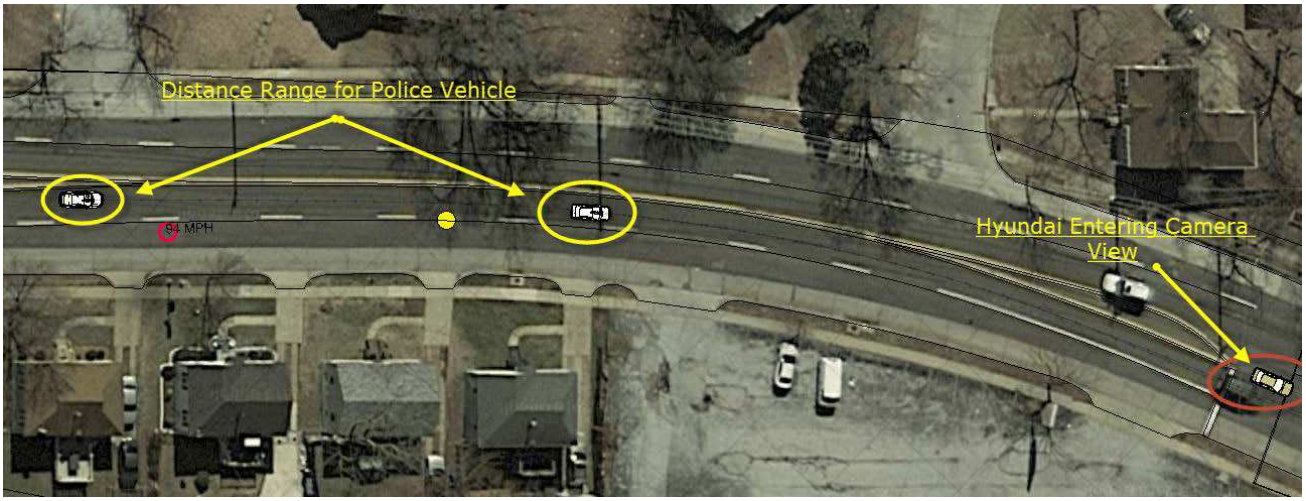
The second representation of the St. Louis County Police vehicle maintains a constant speed of 44 miles per hour prior to it meshing with the first representation at the border of the Airport Elementary School video border. The 44 miles per hour speed is one mile per hour faster than the average calculated speed from the video. If the police vehicle was traveling a constant speed of 43 miles per hour its starting position in the animation would be slightly closer to the video border.

In the animation, the speed of the Hyundai is set to 80 miles per hour. While it is in the yaw, it decelerates at a factor of 0.3.

The dark colored vehicle was set to a constant speed of 33 miles per hour.

The following snapshots depict the approximate locations of the police vehicle and the Hyundai at various times and the approximate sight picture from the police vehicle.

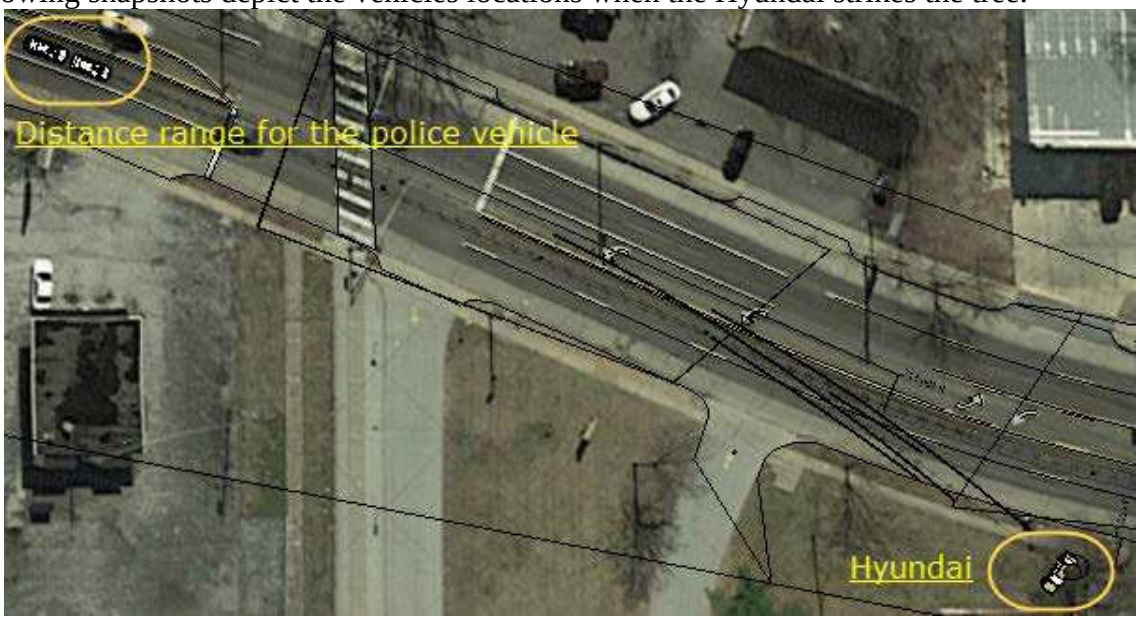
The first snapshots depict the location and view from a vehicle when another vehicle is entering into the view of the Airport Elementary School camera.



In the next snapshots, the vehicles are moved forward one second.

In the next snapshots, the vehicles are moved forward another second.

The following snapshots depict the vehicles locations when the Hyundai strikes the tree.



X

Prior to striking the tree, the Hyundai entered into a critical speed yaw. A critical speed yaw is a maximum performance maneuver. The only way a vehicle enters into a critical speed yaw is through the application of an inappropriate steering input (Fundaments of Traffic Crash Reconstruction, Daily, Shigemura, Daily). There was evidence the driver may have been braking and steering into the skid. While this may affect the critical speed, my calculated speed is within two miles per hour of the speed calculated from the video. There are a couple of possible reasons why the Driver of the Hyundai steered inappropriately. The mapped tire marks indicated the Hyundai was over the centerlines, on the wrong side of the road, when it was yawing. It also appears the Hyundai was rapidly closing in on a vehicle prior to the driver losing control. There was no evidence indicating the Hyundai was “pitted” or otherwise made contact with the St. Louis County Police vehicle prior to entering into the yaw.

The videos indicated the Hyundai was attempting to elude the St. Louis County Police vehicle. A mechanical examination did not reveal any reason why Driver #1 could not have brought the Hyundai to a safe stop prior to the traffic crash.

The animation and subsequent crash site testing indicated the Hyundai was within the sight picture of the police vehicle, from the time it entered into the view of the Airport Elementary School video camera, to the time it impacted the tree.

MSgt. Paul Kempke #982
ACTAR #1825

Attachments:
Photo Log
Crash Diagram
Carfax Report
Recall Data

Photo Log DMI2

1. Right side of Vehicle 1, rest location of Passenger 1
2. Driver #1
3. Driver #1
4. Roadway
5. Tire mark
6. Tire mark
7. Tire mark
8. Tire mark
9. Tire mark
10. Tire mark
11. Tire mark
12. Tire mark
13. Tire marks
14. Tire marks
15. Tire marks
16. Tire mark
17. Tire mark
18. Tire mark
19. Tire mark
20. Tire mark
21. Tire mark
22. Tire mark
23. Tire marks
24. Tire mark
25. Tire mark
26. Tire marks
27. Tire marks
28. Tire marks
29. Tire marks
30. Tire marks
31. Tire marks
32. Tire marks
33. Tire marks
34. Tire marks
35. Tire mark
36. Tire marks
37. Soil gouge
38. Soil gouge
39. Bumper skin
40. Bumper skin
41. Bumper skin
42. Bumper skin
43. Bumper skin
44. Soil gouge
45. Soil gouge
46. Sign post
47. Tree impact
48. Tire mark

49. Tire mark
50. Tire mark
51. Tire mark
52. Tire mark
53. Tire mark and front of the Hyundai
54. Left side of the Hyundai
55. Front left of the Hyundai
56. Left side of the Hyundai
57. Left side of the Hyundai
58. Left side of the Hyundai
59. Left side of the Hyundai
60. Rear left of the Hyundai
61. Rear of the Hyundai
62. Rear right of the Hyundai
63. Right side of the Hyundai
64. Right side of the Hyundai
65. Right side of the Hyundai
66. Right side of the Hyundai
67. Right side of the Hyundai
68. Passenger #1
69. Right side of the Hyundai
70. Truck
71. Tire and wheel
72. Left side of the Hyundai
73. Left side of the Hyundai
74. Tree impact
75. Tree impact
76. Truck lid
77. Debris
78. Debris
79. Hyundai at final rest
80. Debris
81. Sign
82. Bumper skin
83. Bumper foam
84. Bumper skin

DCIM 1

1. Debris
2. Trash can
3. Trash can
4. Debris
5. Debris
6. Debris
7. Debris
8. Trash can
9. Debris

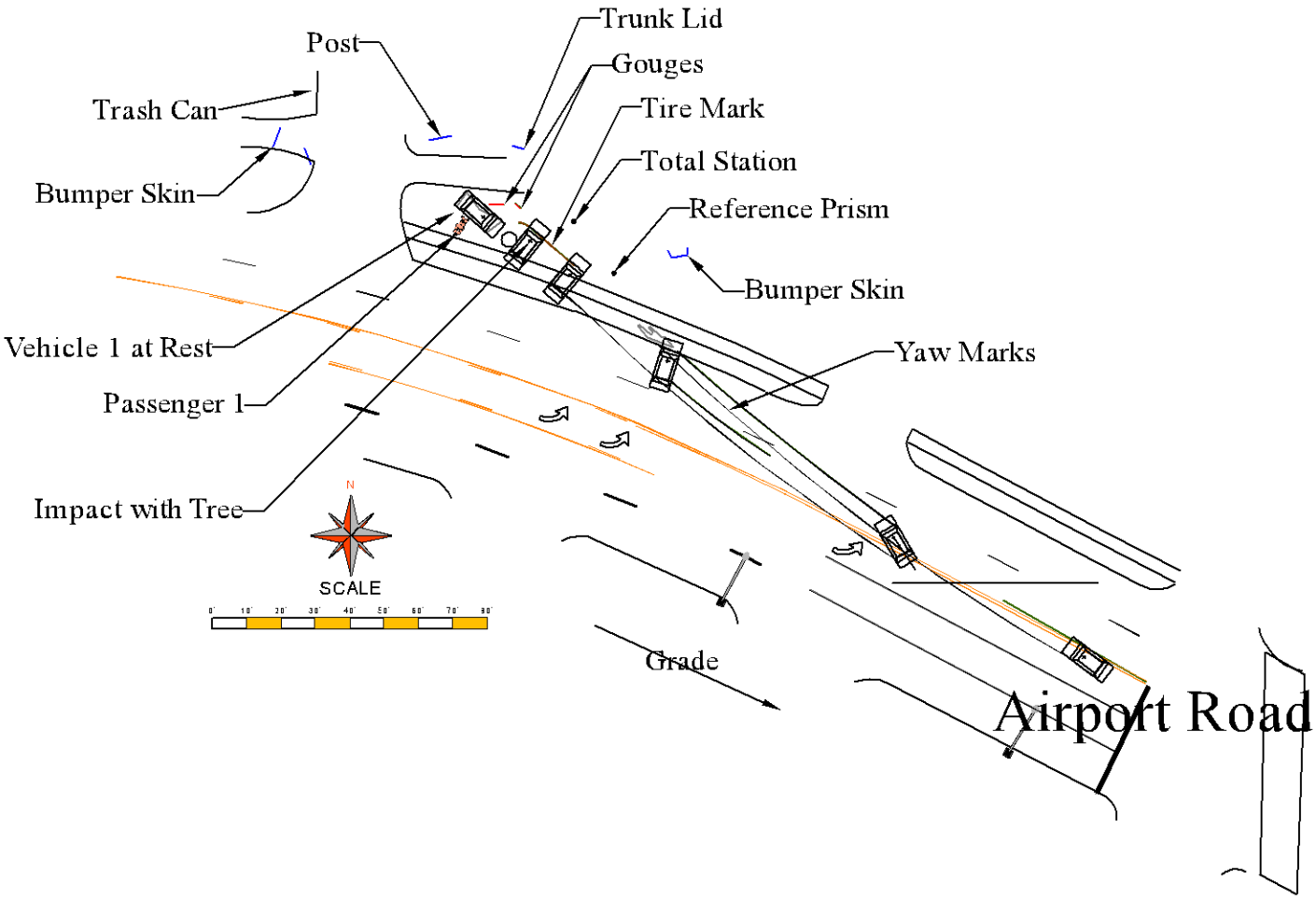
10. Trunk liner
11. Sign post
12. Driver #1
13. Unrelated plastic
14. Unrelated plastic
15. Unrelated plastic
16. Roadway
17. Sidewalk
18. Front of police vehicle
19. Front of police vehicle
20. Front of police vehicle
21. Front of police vehicle
22. Front of police vehicle
23. Front of police vehicle
24. Side of police vehicle
25. Side of police vehicle
26. Side of police vehicle
27. Front of police vehicle

DCIM

1. Bumper of the Hyundai
2. Bumper of the Hyundai
3. Bumper of the Hyundai
4. Rear right of the Hyundai
5. Rear right tire and wheel
6. Rear left of the Hyundai
7. Interior of the Hyundai
8. Seatbelt in the Hyundai
9. Interior of the Hyundai
10. Front of the Hyundai
11. Trash can
12. Trash can
13. Left side of the Hyundai
14. Left side of the Hyundai
15. Left side of the Hyundai
16. Crush measurement
17. Crush measurement
18. Crush measurement
19. Interior of the Hyundai
20. Driver’s seat
21. Interior of the Hyundai
22. Interior of the Hyundai
23. Manufacturer’s labels
24. Interior of the Hyundai
25. Registration
26. Wheelbase
27. Wheelbase
28. Bumper skin

29. Brakes
30. Brake drum
31. Brake drum
32. Brake disc and pad
33. Brake disc and pad
34. Brake disc and pad
35. Brake disc

Diagram


Post
Trash Can
Bumper Skin
Trunk Lid
Gouges
Tire Mark
Total Station
Reference Prism
Bumper Skin
Yaw Marks
Vehicle 1 at Rest
Passenger 1
Impact with Tree
N
SCALE
Grade
Airport Road

VIN of interest?

Add a VIN Alert and CARFAX will notify you via email when new information is reported.

Add a VIN Alert

CARFAX® Vehicle History Report™

An independent company established in 1986

US $39.9

Vehicle Information:
2003 HYUNDAI ELANTRA GLS/GT
VIN: KMHDN45D93U600594
SEDAN 4 DR
2.0L I4 F DOHC 16V
GASOLINE
FRONT WHEEL DRIVE
Standard Equipment | Safety Options

Branded Titles: Rebuilt, Salvage

4 Previous owners

8 Service history records

Personal vehicle

Last owned in Illinois

191,345 Last reported odometer reading

This CARFAX Vehicle History Report is based only on information supplied to CARFAX and available as of 9/20/18 at 12:38:23 PM (CDT). Other information about this vehicle, including problems, may not have been reported to CARFAX. Use this report as one important tool, along with a vehicle inspection and test drive, to make a better decision about your next used car.

CARFAX Ownership History

The number of owners is estimated

	Owners 1-2	Owner 3	Owner 4
Year purchased	2003	2006	2017
Type of owner	Personal	Personal	Personal
Estimated length of ownership	2 yrs. 6 mo.	11 yrs. 8 mo.	2 months
Owned in the following states/provinces	Illinois, Illinois	Illinois	Illinois
Estimated miles driven per year	---	20,636/yr	---
Last reported odometer reading	27,443	185,813	191,345

CARFAX Title History

CARFAX guarantees the information in this section

	Owners 1-2	Owner 3	Owner 4
Salvage | Junk | Rebuilt | Fire | Flood | Hail | Lemon	**Alert!** Problem Found	**Alert!** Problem Found	**Alert!** Problem Found
Not Actual Mileage | Exceeds Mechanical Limits	No Problem	No Problem	No Problem

ALERT!

Alert! Severe problems were reported by a state Department of Motor Vehicles (DMV). This vehicle does not qualify for the CARFAX Buyback Guarantee.

CARFAX Additional History

Not all accidents / issues are reported to CARFAX

	Owners 1-2	Owner 3	Owner 4
Total Loss No total loss reported to CARFAX.	✓ No Issues Reported	✓ No Issues Reported	✓ No Issues Reported
Structural Damage	✓	✓	✓

No structural damage reported to CARFAX.	No Issues Reported	No Issues Reported	No Issues Reported
Airbag Deployment No airbag deployment reported to CARFAX.	No Issues Reported	No Issues Reported	No Issues Reported
Odometer Check No indication of an odometer rollback.	No Issues Indicated	No Issues Indicated	No Issues Indicated
Accident / Damage DMV title problems reported.	Severe Damage	Severe Damage	Severe Damage
Manufacturer Recall Check with an authorized Hyundai dealer for any open recalls.	No Recalls Reported	No Recalls Reported	No Recalls Reported

CARFAX Detailed History

Glossary

Owner 1

Purchased: 2003
Type: Personal
Where: Illinois
Est. length owned: 9/19/03 - 7/19/05 (1 yr. 10 mo.)

Date:	Mileage:	Source:	Comments:
06/04/2003		Hyundai Motor America	Vehicle manufactured and shipped to Illinois Original Manufacturer's Suggested Retail Price: $15,767 Champagne exterior Beige interior
06/23/2003	9	Auffenberg Hyundai O Fallon, IL 618-622-9001 auffenberg.com	Pre-delivery inspection completed
08/30/2003	528	Dealer Inventory Illinois	Vehicle sold
09/10/2003		Auffenberg Hyundai O Fallon, IL 618-622-9001 auffenberg.com	Mud flaps/splash guards installed
09/19/2003		Illinois Motor Vehicle Dept. Godfrey, IL Title #T3262042023	Title issued or updated First owner reported Titled or registered as personal vehicle Loan or lien reported

Owner 2

Purchased: 2005
Type: Personal
Where: Illinois
Est. length owned: 7/19/05 - 4/10/06 (8 months)

Date:	Mileage:	Source:	Comments:
07/19/2005	27,443	Illinois Motor Vehicle Dept. Bloomington, IL Title #X5200767005	New owner reported **SALVAGE TITLE/CERTIFICATE ISSUED** **REBUILT TITLE ISSUED** Loan or lien reported
01/20/2006		Auffenberg Hyundai O Fallon, IL 618-622-9001 auffenberg.com	A/C refrigerant recharged Four wheel alignment performed

Owner 3

Purchased: 2006
Type: Personal
Where: Illinois
Est. miles/year: 20,636/yr
Est. length owned: 4/10/06 - 12/10/17 (11 yrs. 8 mo.)

Date:	Mileage:	Source:	Comments:
04/10/2006	31,070	Illinois Motor Vehicle Dept. East Saint Louis, IL Title #X6100754022	New owner reported **REBUILT TITLE ISSUED**
07/19/2006	35,019	Illinois Motor Vehicle Dept. Caseyville, IL Title #X6200007013	**REBUILT TITLE ISSUED** Loan or lien reported
03/21/2007	57,000	Illinois Inspection Station East Saint Louis, IL	Passed emissions inspection

07/22/2009	93,000	Illinois Inspection Station Belleville, IL	Passed emissions inspection
07/30/2009		Illinois Motor Vehicle Dept. Caseyville, IL	Registration issued or renewed
03/10/2010		Auffenberg Hyundai O Fallon, IL 618-622-9001 auffenberg.com	Vehicle serviced
04/05/2010	116,596	Midas Fairview Heights, IL 618-632-6776 midas.com	Vehicle serviced
06/02/2010	122,078	Valvoline Instant Oil Change Festus, MO 636-933-2355 vioc.com	Oil and filter changed
07/01/2010		Illinois Motor Vehicle Dept. Caseyville, IL	Registration issued or renewed
06/30/2011	142,000	Illinois Inspection Station Belleville, IL	Passed emissions inspection
06/30/2011		Illinois Motor Vehicle Dept. Caseyville, IL	Registration issued or renewed
07/12/2012		Illinois Motor Vehicle Dept. Caseyville, IL	Registration issued or renewed
06/22/2013		Illinois Inspection Station Belleville, IL	Passed emissions inspection
06/25/2013		Illinois Motor Vehicle Dept. Caseyville, IL	Registration issued or renewed
10/07/2013	185,813	Car-X Tire & Auto Saint Louis, MO 314-353-7306 carx.com	Oil and filter changed Wiper(s) replaced
07/29/2014		Illinois Motor Vehicle Dept. Caseyville, IL	Registration issued or renewed
12/10/2017		Illinois Motor Vehicle Dept.	Vehicle purchase reported
12/28/2017		Illinois Motor Vehicle Dept. Waterloo, IL	Registration issued or renewed

Owner 4

Purchased: 2017
Type: Personal
Where: Illinois
Est. length owned: 12/29/17 - 3/14/18 (2 months)

Date:	Mileage:	Source:	Comments:
12/29/2017		Illinois Motor Vehicle Dept. Waterloo, IL Title #173636903480	New owner reported **REBUILT TITLE ISSUED** Exempt from odometer reporting Vehicle color noted as Gold
01/09/2018	189,119	Dobbs Tire & Auto Centers Cahokia, IL 618-332-6800 gotodobbs.com	Oil and filter changed
03/14/2018	191,345	Auto Auction Missouri	Vehicle sold at auction

Glossary

View Full Glossary

First Owner
When the first owner(s) obtains a title from a Department of Motor Vehicles as proof of ownership.

New Owner Reported
When a vehicle is sold to a new owner, the Title must be transferred to the new owner(s) at a Department of Motor Vehicles.

Ownership History
CARFAX defines an owner as an individual or business that possesses and uses a vehicle. Not all title transactions represent changes in ownership. To provide estimated number of owners, CARFAX proprietary technology analyzes all the events in a vehicle history. Estimated ownership is available for vehicles manufactured after 1991 and titled solely in the US including Puerto Rico. Dealers sometimes opt to take ownership of a vehicle and are required to in the following states: Maine, Massachusetts, New Jersey, Ohio, Oklahoma, Pennsylvania and South Dakota. Please consider this as you review a vehicle's estimated ownership history.

Rebuilt/Reconstructed Title
A Rebuilt/Reconstructed vehicle is a salvage vehicle that has been repaired and restored to operation. These vehicles are often severely damaged before they are rebuilt and refurbished parts are typically used during reconstruction. In most states, an inspection of the vehicle is required before the vehicle is allowed to return to the road.

Salvage Title
A Salvage Title is issued on a vehicle damaged to the extent that the cost of repairing the vehicle exceeds approximately 75% of its pre-damage value. This damage threshold may vary by state. Some states treat Junk titles the same as Salvage but the majority use this title to indicate that a vehicle is not road worthy and cannot be titled again in that state. The following eleven states also use Salvage titles to identify stolen vehicles - AZ, FL, GA, IL, MD, MN, NJ, NM, NY, OK and OR.

Title Issued
A state issues a title to provide a vehicle owner with proof of ownership. Each title has a unique number. Each title or registration record on a CARFAX report does not necessarily indicate a change in ownership. In Canada, a registration and bill of sale are used as proof of ownership.

9/20/18 12:38:23 PM (CDT)

2003

Hyundai

ELANTRA

IMAGE NOT AVAILABLE

VIN: KMHDN45D93U600594

Recall data refreshed on Sep 20,2018

0 Recalls

associated with this VIN

What if my car isn't recalled now? Could it be recalled later?

Yes. Whether a manufacturer independently conducts a safety recall or NHTSA orders one, the manufacturer must file a public report describing the safety-related defect or noncompliance. Manufacturers are also required to notify owners by mail within 60 days of notifying NHTSA of a recall decision.

Look for this distinct label to distinguish critical safety recall information from other marketing material.