CRASH DATA RESEARCH CENTER
Calspan Corporation
Buffalo, NY 14225

NOT-IN-TRAFFIC SURVEILLANCE
CALSPAN REMOTE BACK OVER FATALITY INVESTIGATION

SCI CASE NO: CA07-004

VEHICLE: 1996 CHEVROLET K1500 PICKUP
LOCATION: TENNESSEE
CRASH DATE: OCTOBER, 2006

Contract No. DTNH22-07-C-00043

Prepared for:

U.S. Department of Transportation
National Highway Traffic Safety Administration
Washington, D.C. 20590

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points are coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

TECHNICAL REPORT STANDARD TITLE PAGE

1. Report No. CA07-004	*2. Government Accession No.*	*3. Recipient's Catalog No.*	
4. Title and Subtitle Not-In-Traffic Surveillance Calspan Remote Back Over Fatality Investigation Vehicle: 1996 Chevrolet K1500 Pickup Location: Tennessee		*5. Report Date*: July 2007 *6. Performing Organization Code*	
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15. Supplementary Note An investigation of the 1996 Chevrolet K1500 pickup involved in a back over fatality.			
16. Abstract This investigation focused on the crash dynamics, fatal injury sources, and rear visibility of a 1996 Chevrolet K1500 pickup that was involved in a Not-In-Traffic back over fatality of a 4 year old male. The Chevrolet was configured with an extended cab and had an open short box. The crash occurred in the parking lot of a licensed child care provider during daylight hours. Immediately prior to the crash, the driver of the Chevrolet entered the parking lot of a child care provider, parked the pickup and entered the facility to retrieve his child. The driver placed his 4 year old daughter in a child safety seat located in the left rear position of the pickup. The driver then entered the left front position of the Chevrolet. Unbeknownst to the driver, a 4 year old male was playing in a mud puddle located approximately 1.5 m (5 ft) behind the Chevrolet. The crash occurred when the driver of the Chevrolet backed up to exit the parking lot. The child was probably contacted by the rear bumper and then ran over by the vehicle. The police were unsure which tire contacted the child. The driver reported in his interview to the police that he felt a bump and thought that it was the transition from the gravel parking area to the asphalt road. As the driver steered the Chevrolet through a clockwise arc, he saw the injured child to the vehicle's front left and realized he had backed over him. The child sustained fatal injuries and was deceased at the scene. Based on an exemplar vehicle's measured sight line, the child non-motorist was not visible to the driver prior to backing.			
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NOT-IN-TRAFFIC SURVEILLANCE
CALSPAN REMOTE BACK OVER FATALITY INVESTIGATION
SCI CASE NO: CA07-004

VEHICLE: 1996 CHEVROLET K1500 PICKUP
LOCATION: TENNESSEE
CRASH DATE: OCTOBER, 2006

BACKGROUND

This investigation focused on the crash dynamics, fatal injury sources, and the rear visibility of a 1996 Chevrolet K1500 pickup that was involved in a Not-In-Traffic back over fatality of a 4 year old male. The Chevrolet was configured with an extended cab and had an open short box. The crash occurred in the parking lot of a licensed child care provider during daylight hours. **Figure 1** is an overall view of the crash site looking to the northwest. Immediately prior to the crash, the driver of the Chevrolet entered the parking lot of a child care provider, parked the pickup and entered the facility to retrieve his child. The driver placed his 4 year old daughter in a child safety seat located in the left rear position of the pickup. The driver then entered the left front position of the Chevrolet. Unbeknownst to the driver, a 4 year old male was playing in a mud puddle located approximately 1.5 m (5 ft) behind the Chevrolet. The crash occurred when the driver of the Chevrolet backed up to exit the parking lot. The child was probably contacted by the rear bumper and then ran over by the vehicle's tire. The police were unsure which tire contacted the child. The driver reported in his interview to the police that he felt a bump and thought that it was the transition from the gravel parking area to the asphalt road. As the driver steered the Chevrolet through a clockwise arc, he observed the injured child to the vehicle's front left and realized he had backed over him. The child sustained fatal head injuries and was deceased at the scene. Based on an exemplar vehicle's measured sight line, the child was not visible to the driver prior to backing.

Figure 1: Overall view at the crash site.

This crash was identified by the Crash Investigation Division of the National Highway Traffic Safety Administration through an Internet News article posted on October 24, 2006. The NHTSA forwarded the article to the Calspan Special Crash Investigations (SCI) team the same day. Calspan SCI initiated follow-up investigation and established cooperation with the police investigator. The crash was documented on the Tennessee Uniform Traffic Crash Report and reported to the state. A remote level investigation of the crash was assigned January 27, 2007. This remote investigation included a review and analysis of the Police Crash Report and copies of the on-scene photographs. The driver was not interviewed regarding this incident. Additionally, the rear visibility of an exemplar Chevrolet K1500 pickup was examined.

SUMMARY

VEHICLE DATA

1996 Chevrolet K1500 Pickup

The 1996 Chevrolet K1500 pickup was identified by the Vehicle Identification Number (VIN): 2GCEK19R2T1 (production sequence deleted). The four-wheel drive, 454 kg (1/2 ton) pickup was configured with an extended cab and a 2 m (6.5 ft) sportside bed on a 359 cm (141.5 in) wheelbase. The pickup bed was open and the tailgate was closed. The overall length of the Chevrolet was 552 cm (217.5 in). The vehicle's power train consisted of a 5.7 liter, V8 engine linked to a 4-speed automatic transmission. The brakes were a front disc/rear drum system with four-wheel ABS. The manufacturer's recommended tire size was LT245/75R16 tires.

Figure 2: Subject vehicle.

A review of the available on-scene police photographs indicated the front door windows were OEM AS2 glazing. The side and rear windows glazings were OEM AS3 tint. All windows on the vehicle were closed at the time of the crash. Three decals/stickers were present on the rear window. A 5 cm (2 in) receiver trailer hitch was attached to the vehicle's frame. The investigating police officers reported there was no physical evidence or damage evident on the vehicle. **Figures 3 and 4** are left side and rear views of the Chevrolet, respectively.

Figure 3: Left view of the Chevrolet.

Figure 4: Rear view.

CRASH SITE

At the time of the crash, it was daylight and the weather did not appear to be a factor. The crash occurred on private property in the driveway/parking lot of a child care provider near the end of the work day. **Figure 5** is an overhead view of the crash site. At the site, the child care facility was located on the north side of a suburban two-lane road. A gravel parking lot was located in front of the building. The estimated area of the parking lot was 18 m x 12 m (60 ft x 40 ft), width by depth. The size of parking lot and its location relative to the road necessitated that vehicles generally drove into the lot, parked, and then backed out to leave.

Figure 5: Overhead view of the child care facility and parking lot.

CRASH SEQUENCE

Pre-Crash

The 1996 Chevrolet K1500 pickup was driven by a 31 year old male. The driver maneuvered the pickup into the parking lot of the child care facility, stopped and entered the building to pick up his 4 year old daughter. Reportedly, an unknown make/model pickup was parked to the Chevrolet's left and the female driver of that vehicle was in the process of picking up her four children. As the driver of the Chevrolet exited the facility with his daughter, his daughter said good-bye to the subject 4 year old male. Reportedly, he was seated in his truck. The subject driver then placed his daughter in a child safety seat in the left rear position of the Chevrolet.

During these actions, the female driver of the adjacent truck exited the facility and was securing one of her other children in a child safety seat. The subject child exited the adjacent truck, walked behind the subject vehicle and knelt down to play in a mud puddle that was located near the road edge approximately 1.5 m (5 ft) behind the Chevrolet. The driver of the Chevrolet entered and started his vehicle and began to back out of the parking lot. A schematic of the crash is included at the end of this report as **Figure 11**.

Crash

The vehicle backed up and the driver steered the vehicle in a clockwise arc as it reached the road pavement. The driver recalled "feeling" a bump as he backed up. However, he thought the bump was caused by the transition from the gravel parking area to the asphalt pavement at the road edge. As the left front of the vehicle cleared the parking area, the driver observed the subject child lying adjacent to the mud puddle. He then realized that he had backed over him. The police estimated the Chevrolet backed up approximately 1.5 (5 ft) from its initial position to the impact. A reconstruction based on the available police photographs indicated the Chevrolet backed up an estimated 9.1 m (30 ft) from impact to final rest.

In a police statement, a witness recalled seeing the 4 year old male playing in the mud puddle as she drove into the parking lot. As her vehicle entered the lot and parked, she stated that the subject male started running back towards his mother's truck. At the same time, the Chevrolet

backed up, struck and ran over the child. However, she also reported that she did not see the crash. She first noticed that the crash had occurred when the driver of the Chevrolet exited his vehicle and called for help.

Post-Crash

The police and emergency medical personnel were notified of the crash via the 9-1-1 system and responded to the scene. A child care employee exited the facility and immediately began Cardio-Pulmonary Resuscitation (CPR). However, medical efforts to revive the child were unsuccessful. The child was pronounced deceased at the scene of a reported head injury. Height and weight information for the child non-motorist and the Chevrolet driver were not available.

RECONSTRUCTION

Figures 6 through 9 are a series of on-scene police photographs obtained from the investigating police officers. The photographs depict the rest final position of the Chevrolet in relation to the parking lot. The police investigators were unclear as to which tire backed over the child. The relative positions of the truck, final rest position of the child and the mud puddle suggested the child was probably knocked down by the left aspect of the rear bumper and contacted by the left rear tire. The police investigators did not identify any physical evidence of the crash on the Chevrolet. There was no identifiable physical evidence on the pickup truck in the police photographs.

Figure 6: Overall view of the crash site.

Figure 7: Point of impact.

Figure 8: Point of impact.

Figure 9: Point of impact.

REAR VISIBILTY

1996 Chevrolet K1500 Pickup

The baseline rear visibility of an exemplar Chevrolet was measured in a level parking lot. The stature of the subject drive was not known, therefore, a 183 cm (72 in) tall substitute driver was used for this baseline visibility study. A 71 cm (28 in) tall red reflective target was placed on the vehicle's centerline and moved rearward to a location where the substitute driver could first see the red target by looking over his right shoulder. The centerline visibility distance was measured from the rear bumper. A second measurement was taken with the target placed at ground level. The measured distance is summarized below and depicted in a diagram attached to the end of this report, **Figure 10**.

- Sight distance to 71 cm (28 in) target: 7.5 m (24.6 ft)
- Sight distance to ground level target: 16 m (52.5 ft)

Given that the child knelt down to play at the mud puddle, his height would have been an estimated 61 cm (24 in) above ground. It was estimated by the police that the mud puddle was 1.5 m (5 ft) rearward of the Chevrolet's rear bumper. Based on the measured sight line, the child would not have been visible to the driver prior to backing.

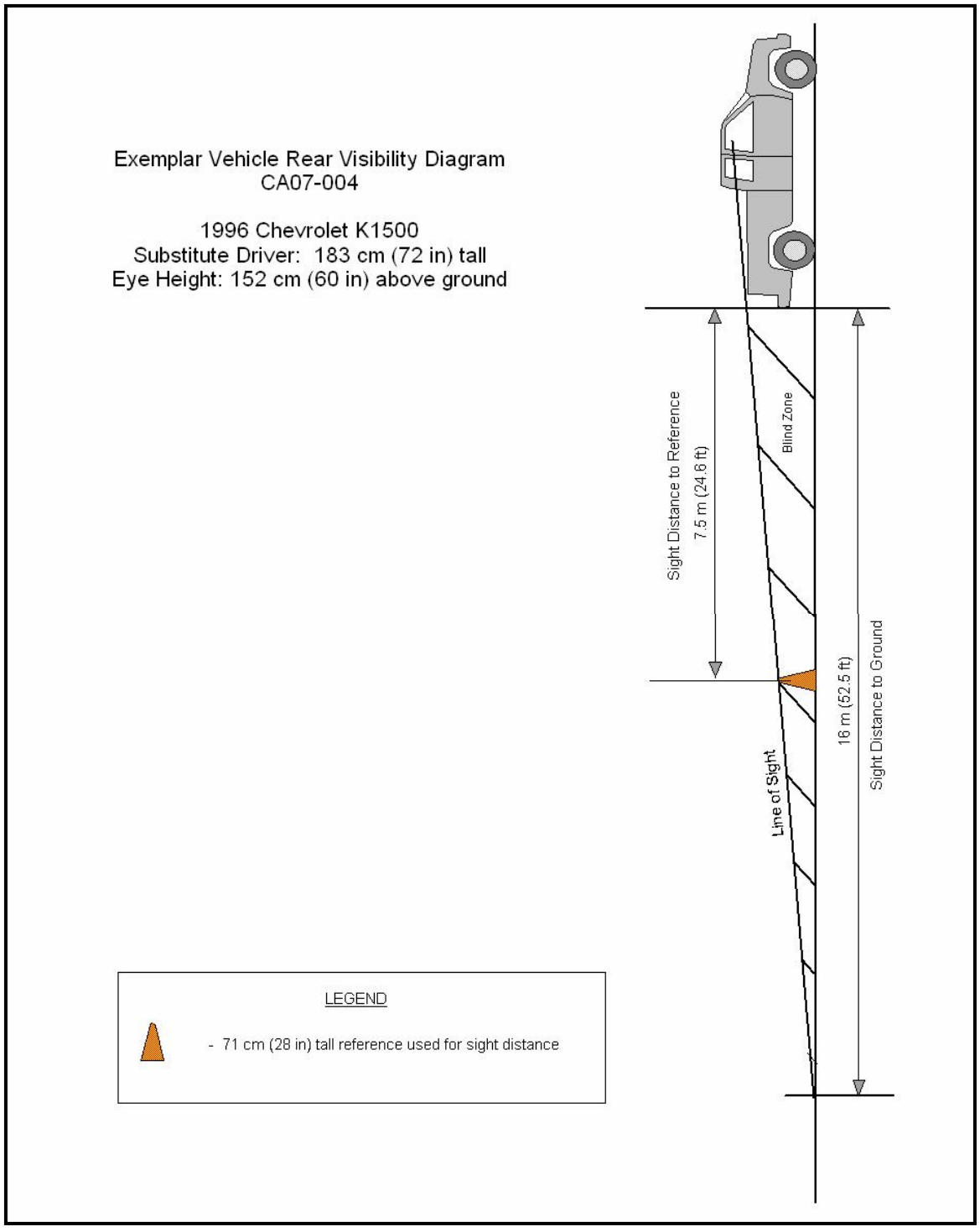

Figure 10: Exemplar Vehicle Visibility Diagram

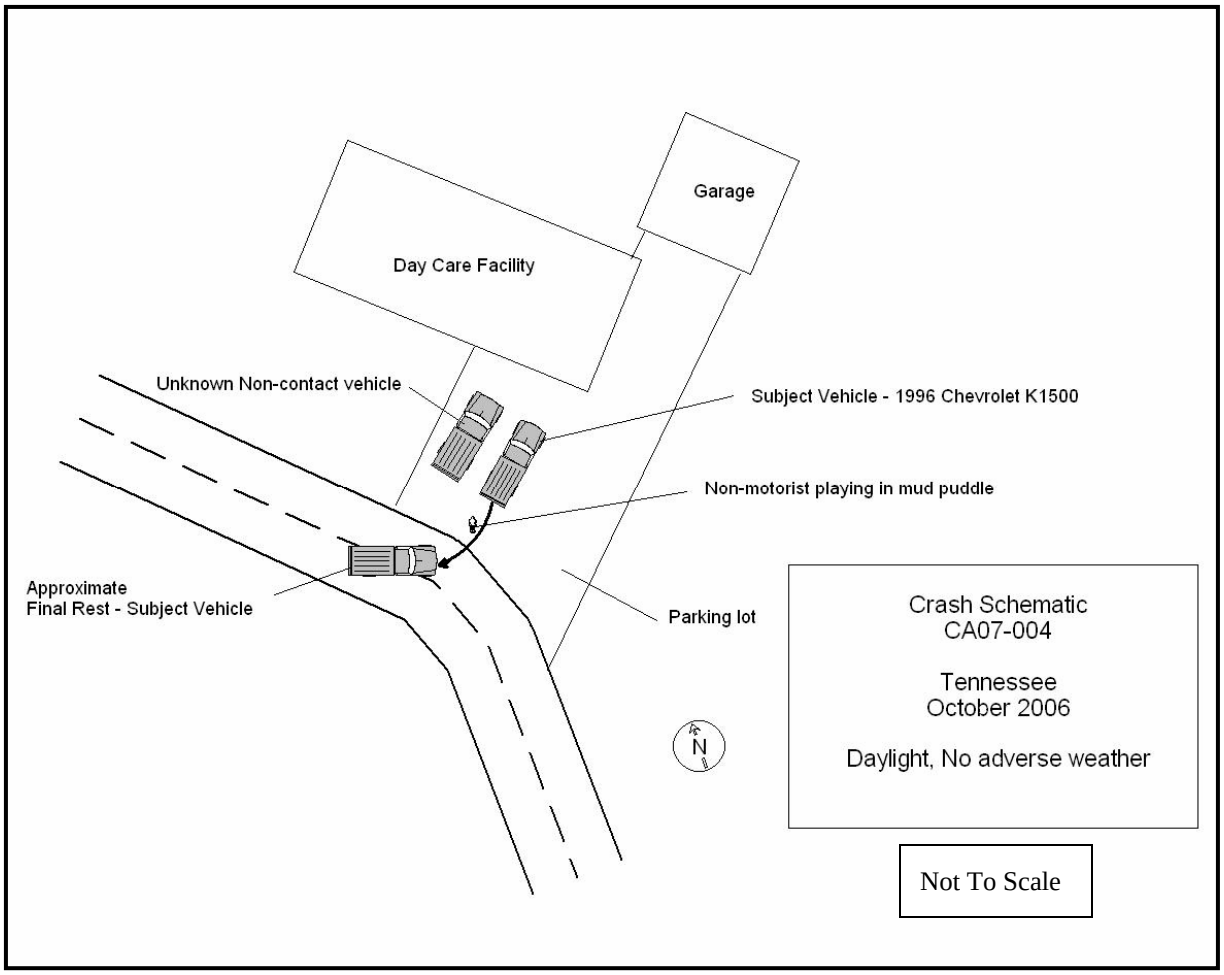

Figure 11: Crash schematic.

ATTACHMENT A

Not-In-Traffic Surveillance Forms

Not Applicable ☐

Reset Values

Print Forms

U.S. Department of Transportation
National Highway Traffic Safety Administration

SCENE FORM

Special Crash Investigations
Not In Traffic Surveillance

1. Case Number

C A 0 7 0 0 4

IDENTIFICATION

2. Date of Crash 1 0 / X X / 0 6

3. Time of Crash 1 7 1 2

Code reported military time of crash.

NOTE: Midnight = 2400
Unknown = 9999

AMBIENT CONDITIONS

4. Light Conditions

- ◉ Daylight
- ○ Dark
- ○ Dark but lighted
- ○ Dawn
- ○ Dusk
- ○ Unknown

5. Atmospheric Conditions
(*Select all that apply)*

- ◉ Clear-No adverse conditions
- ○ Cloudy
- ○ Rain
- ○ Snow
- ○ Fog, Smog, Smoke
- ○ Sleet, Hail (freezing rain or drizzle)
- ○ Blowing Snow
- ○ Severe Crosswinds
- ○ Blowing Sand, Soil, Dirt
- ○ Other (specify):_____
- ○ Unknown

6. Temperature

- ○ Below 0 degrees Celsius (Below 32 F)
- ○ 1-10 degrees Celsius (33-50 F)
- ◉ >10-24 degrees Celsius (51-75 F)
- ○ Over 24 degrees Celsius (Over 75 F)
- ○ Unknown

SCENE INFORMATION

7. Type of area in which crash occurred
(*Select all that apply)*

- ◉ Single family residential
- ○ Row houses/townhouses
- ○ Multi family housing
- ○ Commercial
- ○ Industrial
- ○ Rural
- ○ Unknown

8. Driver exterior sightline obstructions
(*Select all that apply)*

- ◉ None
- ○ Other vehicles
- ○ Building
- ○ Trees
- ○ Shrubbery
- ○ Other (specify)_____
- ○ Utility poles
- ○ Signs
- ○ Glare
- ○ Unknown
- ○ No driver present

9. Crash location

- ○ Driveway
- ◉ Parking Lot
- ○ Sidewalk
- ○ Alley
- ○ Intersection of driveway and sidewalk
- ○ Road / street
- ○ Roadside / shoulder
- ○ Other (specify)_____
- ○ Unknown

10. Non motorist sightline obstructions
(*Select all that apply)*

- ◉ None
- ○ Other vehicles
- ○ Building
- ○ Trees
- ○ Shrubbery
- ○ Utility poles
- ○ Signs
- ○ Glare
- ○ Other (specify) _____
- ○ Unknown

11. Grade at parked position + / - 0 0 0 %

12. Estimated distance from parked position to impact

0 0 1 . 5 m

13. Estimated speed at impact 0 0 2 kmph

14. Grade at impact +/ - 0 0 0 %

15. Estimated distance from impact to vehicle final rest

0 0 9 . 1 m

Unknown = 999 Reference Items 11,12, 13, 14, 15

Not Applicable ☐

Reset Values

U.S. Department of Transportation
National Highway Traffic Safety Administration

VEHICLE FORM

Special Crash Investigations
Not In Traffic Surveillance

1. Case Number C A 0 7 0 0 4

VEHICLE IDENTIFICATION

2. VIN 2 G C E K 1 9 R 2 T 1 X X X X X X

3. Model Year 1 9 9 6

4. Vehicle Make (specify): CHEVROLET

5. Vehicle Model (specify): K1500 PICKUP TRUCK

GLAZING

Location	Presence (check)	Status (select)	Clarity (select)	Tint (check)	Glazing Obstructions (specify if present)
Windshield	☑	☑ Fixed / ☐ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☑ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	
LF	☑	☐ Fixed / ☑ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☑ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	
RF	☑	☐ Fixed / ☑ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☑ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	
2nd Left	☑	☐ Fixed / ☑ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☑ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☑	
2nd Right	☑	☐ Fixed / ☑ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☑ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☑	
3rd Left	☐	☐ Fixed / ☐ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☐ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	
3rd Right	☐	☐ Fixed / ☐ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☐ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	
Backlight	☑	☑ Fixed / ☐ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☑ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☑	
Left Backlight	☐	☐ Fixed / ☐ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☐ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	
Right Backlight	☐	☐ Fixed / ☐ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☐ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	
Roof	☐	☐ Fixed / ☐ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☐ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	
Other (specify)	☐	☐ Fixed / ☐ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☐ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	

TIRE DATA

6. Vehicle Manufacturer Recommended Tire Size LT245/75R16

7. LF Tire Size UNKNOWN

8. LR Tire Size UNKNOWN

9. RF Tire Size UNKNOWN

10. RR Tire Size UNKNOWN

Seats / Head Restraint Data

Seat Position	Seat Type (Select from below)	Head Restraint (Check if available)	Head Restraint Adjustment (select)
Front Left	99	☐	☐ ☐ ☐ Full Down / Mid / Full Up
Front Middle	99	☐	☐ ☐ ☐ Full Down / Mid / Full Up
Front Right	99	☐	☐ ☐ ☐ Full Down / Mid / Full Up
2nd Left	99	☐	☐ ☐ ☐ Full Down / Mid / Full Up
2nd Middle	99	☐	☐ ☐ ☐ Full Down / Mid / Full Up
2nd Right	99	☐	☐ ☐ ☐ Full Down / Mid / Full Up
3rd Left	99	☐	☐ ☐ ☐ Full Down / Mid / Full Up
3rd Middle		☐	☐ ☐ ☐ Full Down / Mid / Full Up
3rd Right		☐	☐ ☐ ☐ Full Down / Mid / Full Up

NOTES:

Vehicle was not inspected in this remote investigation; seat configurations were unknown and could not be determined via the photographs.

Seat Type codes:

0 = No seat or seat folded down
1 = Bucket
2 = Bucket w/ folding back
3 = Bench
4 = Bench with folding back cushions
5 = Bench w/ folding back
6 = Split bench w/ separate back cushions
7 = Split bench w/ separate folding back
8 = Pedestal (i.e. column supported)
9 = Box mounted (i.e. van type)
10= Other seat type (specify)
99= Unknown seat type

VEHICLE MEASUREMENTS

Clearance Heights		Measurements (all from ground, and in centimeters	NOTES
Beltline		117	Subject vehicle was not inspected. Exemplar vehicle measurement listed for reference use only.
Top of trunk/tailgate		117	
Bottom of bumper		47	
Trailer hitch (if applicable)		37	
Undercarriage			
	Sway bar	n/a	
	Axle	30	
	Differential	19	
	Other (specify): Spare	33	
Sensor Height (if equipped)		n/a	
Camera Height (if equipped)		n/a	

Not Applicable ☑

Reset Values

U.S. Department of Transportation
National Highway Traffic Safety Administration

Back Up / Parking Aid Form

Special Crash Investigations
Not In Traffic Surveillance

1. Case Number

C A 0 7 0 0 4

PARKING AID PRESENCE

2. Type of backing/parking aid present

- ○ OEM camera
- ○ OEM ultrasonic/radar sensor
- ○ OEM combination camera-ultrasonic/radar sensor
- ○ OEM Fresnel lens
- ○ OEM interior mirrors
- ○ Aftermarket camera
- ○ Aftermarket ultrasonic/radar sensor
- ○ Aftermarket combination camera-ultrasonic radar sensor
- ○ Aftermarket Fresnel lens
- ○ Aftermarket interior mirrors
- ○ Other (specify): _____

CAMERA INFORMATION

Specify field of view measurements on diagram

3. System make/model

_____

4. Video monitor type

- ○ None present
- ○ LCD (color)
- ○ CRT (black & white)
- ○ Unknown

5. Video display size _____ cm
(Diagonal)

6. Camera location

- ○ None present
- ○ Bumper
- ○ License plate
- ○ Tailgate/Hatch/Trunk
- ○ Other (specify): _____

7. Video image quality under scene lighting conditions

- ○ None present
- ○ Good
- ○ Average
- ○ Poor (specify): _____
- ○ Unknown

8. Was the camera functioning properly

- ○ None present
- ○ Yes
- ○ No, poor image quality due to glare
- ○ No, poor image quality due to atmospheric conditions
- ○ No, camera turned off
- ○ No, camera inoperable
- ○ Unknown

ULTRASONIC/RADAR SENSOR

Specify object detection range on diagram

9. System make/model

_____

10. Auditory warning illumination

- ○ No sensor present
- ○ Yes
- ○ No
- ○ Unknown

11. Number of sensors ____

12. Sensor locations
(Select all that apply)

- ○ No sensor present
- ○ Left bumper
- ○ Center bumper
- ○ Right bumper
- ○ License plate area
- ○ Tailgate/Hatch/Trunk

13. Was warning system functioning properly

- ○ No sensor present
- ○ Yes, system alerted driver
- ○ No, system did not alert driver
- ○ No, system turned off
- ○ No, system inoperable
- ○ Unknown

14. Did driver react to warning

- ○ No sensor present
- ○ Yes
- ○ No
- ○ Unknown

15. Did driver report common false warnings

- ○ No sensor present
- ○ Yes
- ○ No
- ○ Unknown

No Driver Present ☐

Reset Values

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DRIVER FORM

Special Crash Investigations
Not In Traffic Surveillance

1. Case Number

C A 0 7 0 0 4

DRIVER PROFILE

2. Driver's Age 3 1
   99 = Unknown
3. Driver's Sex
   - ◉ Male
   - ○ Female
   - ○ Unknown
4. Driver's Height 9 9 9 cm
   999 = Unknown
5. Driver's Weight 9 9 9 kg
   999 = Unknown
6. Driver eyewear worn
   (Select all that apply)
   - ○ None
   - ○ Eyeglasses
   - ○ Sunglasses
   - ○ Contacts
   - ◉ Unknown
7. Driver vision deficiency condition
   (Select all that apply)
   - ○ None
   - ○ Near sighted
   - ○ Far sighted
   - ○ Astigmatism
   - ○ Other (specify) _____
   - ◉ Unknown
8. Non motorist's relationship to driver
   - ◉ No relationship
   - ○ Child
   - ○ Grandchild
   - ○ Sibling
   - ○ Neighbor
   - ○ Friend
   - ○ Other (specify): _____
   - ○ Unknown

DRIVER ACTIONS

9. Driver approach to vehicle for entry
   - ○ From left front
   - ◉ From left
   - ○ From left rear
   - ○ From right rear
   - ○ From right front
   - ○ Circled vehicle
   - ○ Return trip (backing into driveway/lot)
   - ○ Other (specify): _____
   - ○ N/A
   - ○ Unknown

10. Driver entry interruption
    (Select all that apply)
    - ○ Direct trip from building to vehicle
    - ○ Loaded items into vehicle
    - ○ Spoke with family
    - ○ Spoke with neighbors
    - ○ Spoke with contacted nonmotorist
    - ○ Return trip (backing into driveway/lot)
    - ◉ Other (specify): Child in CSS
    - ○ N/A
    - ○ Unknown

☐11. Purpose of backing
    - ○ Leaving parking space in parking lot
    - ◉ Backing onto roadway from driveway
    - ○ Entering parking space in parking lot
    - ○ Backing into driveway from roadway
    - ○ Other (specify): _____
    - ○ N/A
    - ○ Unknown

12. Where was driver going
    Description:

Leaving facility after picking up his own child

13. Driver in a hurry
    - ○ Yes
    - ◉ No
    - ○ N/A
    - ○ Unknown

14. How did driver check behind (rear area of vehicle) after vehicle entry
    (Select all that apply)
    - ○ Did not look
    - ○ Checked mirrors
    - ○ Turned right and looked back
    - ○ Turned left and looked back
    - ○ Viewed Camera
    - ○ Listened for auditory/visual warning from system
    - ○ Other (specify): _____
    - ○ N/A
    - ◉ Unknown

15. Estimated time between vehicle entry and start of backing
    - ◉ 0-10 Seconds
    - ○ 11-30 Seconds
    - ○ 31-60 Seconds
    - ○ Over 60 Seconds
    - ○ N/A
    - ○ Unknown

16. What direction was the driver looking during backing maneuver
(Select all that apply)

- ○ Straight ahead
- ○ Right
- ○ Left
- ○ Rearward
- ○ At object inside the car
- ○ At mirrors
- ○ Other (specify): _____
- ○ N/A
- ◉ Unknown

17. Was the driver distracted during back up maneuver
(Select all that apply)

- ○ No non-driving activities

External

- ○ Looking at other vehicles
- ○ Looking at other non motorist
- ○ Looking at intended turn destination
- ○ External focus, not specified
- ○ Other external focus (specify): _____

Internal

- ○ Looking at other occupant
- ○ Talking to passenger
- ○ Dialing phone
- ○ Talking on phone
- ○ Listening to radio/cd/portable playback device
- ○ Adjusting radio/cd player
- ○ Adjusting climate controls
- ○ Using a device/controls integral to vehicle (specify): _____
- ○ Reading/adjusting navigation system
- ○ Eating or drinking
- ○ Smoking related
- ○ Retrieving fallen object (specify): _____
- ○ Internal focus, not specified
- ○ Focused on other internal object (specify): _____
- ○ N/A
- ◉ Unknown

18. Driver avoidance actions prior to impact
(Select all that apply)

- ◉ None
- ○ Braking
- ○ Steering left
- ○ Steering right
- ○ Accelerating
- ○ Other (specify): _____
- ○ N/A
- ○ Unknown

19. Did driver see struck non motorist prior to impact
(Select all that apply)

- ◉ No, never saw non motorist
- ○ Saw non motorist prior to entering vehicle
- ○ Saw non motorist after entering vehicle
- ○ Other (specify): _____
- ○ N/A
- ○ Unknown

20. Est time between start of backing and impact

- ◉ <2 or = 1 second
- ○ 2-5 seconds
- ○ 6-10 seconds
- ○ > 10 seconds
- ○ N/A
- ○ Unknown

21. Driver interior sightline obstructions
(Select all that apply)

- ○ Pillar
- ○ Headrest
- ○ Cargo
- ○ Other occupant
- ○ Other (specify) _____
- ○ Unknown
- ◉ None

22. Recent experience driving this vehicle

- ◉ More than 10 times the last three months
- ○ 6-10 times the last three months
- ○ 2-5 times the last three months
- ○ Less than 2 times the last three months
- ○ First time driving this vehicle
- ○ N/A
- ○ Unknown

23. Frequency of driving in this parking lot/driveway

- ○ Daily
- ○ Weekly
- ○ Several times a month
- ○ Monthly
- ○ Rarely
- ○ First time in lot/driveway
- ○ N/A
- ◉ Unknown

24. Driver Impairment
(Select all that apply)

- ◉ No drugs or alcohol present
- ○ Alcohol present (specify BAC): _____
- ○ Drugs present (specify):_____
- ○ Unknown

25. Source of alcohol/drug results

- ◉ Police reported
- ○ Medical record
- ○ Other (specify)_____
- ○ Not Tested
- ○ Unknown if tested

Not Applicable ☐

U.S. Department of Transportation
National Highway Traffic Safety Administration

Non Motorist Form

Reset Values

Special Crash Investigations
Not In Traffic Surveillance

1. Case Number
C A 0 7 0 0 4

NON-MOTORIST PROFILE

2. Non-motorist's Age
99 = Unknown
0 4 ○ Months ◉ Years

3. Non-motorist's Sex
◉ Male
○ Female
○ Unknown

4. Non-motorist's Height
9 9 9 cm
999 = Unknown

5. Non-motorist's Weight
9 9 9 kg
999 = Unknown

6. Medical outcome

○ Not injured
○ ER only
○ Hospitalized 1-4 days
○ Hospitalized 5 days or more
○ Treatment later
◉ Fatal
○ Unknown

7. Source of most severe injury
○ Bumper
◉ Tire
○ Undercarriage
○ Other Specify:_____
○ Ground
○ N/A
○ Unknown

8. Non-motorist impairment
(Select all that apply)
◉ No drugs or alcohol present
○ Positive for alcohol (specify BAC): _____
○ Positive for drugs (specify): _____
○ Unknown

9. Source of alcohol/drug results
◉ Police reported
○ Medical Report
○ Other (specify) _____
○ Not Tested
○ Unknown if tested

NON-MOTORIST ACTIONS

10. Non-motorist attitude

○ Standing
○ Bending at waist
○ Sitting
○ Crouching
◉ Kneeling
○ On skates/skateboard
○ On bike/scooter
○ Other (specify)_____
○ Unknown

11. Non-motorist motion

◉ Not moving
○ Walking slowly
○ Walking rapidly
○ Running or jogging
○ Skipping/Hopping/Jumping
○ Falling/Stumbling/Rising
○ On skates/skateboard
○ On bike/scooter
○ Other (specify): _____
○ Unknown

12. Non-motorist approach relative to rear of vehicle

◉ Stationary
○ From left
○ From right
○ From behind
○ Other (specify): _____
○ Unknown

13. Non-motorist first avoidance action

◉ No avoidance actions
○ Stopped
○ Accelerated pace
○ Ran away (along vehicle path)
○ Jumped
○ Turned away from vehicle
○ Turned toward vehicle and braced
○ Dove or fell away from vehicle
○ Other (specify): _____
○ Unknown

14. Non-motorist primary focus of attention

○ Striking vehicle
○ Play object
○ Person
○ Surrounding traffic
○ Animal
○ Handheld electronic (phone, MP3 player, etc.)
◉ Other Object (specify) Mud puddle
○ Unknown

15. Were any other Non-motorists present?
(Select all that apply)

◉ Alone
○ One adult present
○ One other child present
○ Multiple adults present
○ Multiple children present
○ Unknown

NON MOTORIST CLOTHING

NOTES:

- Specify Color, Fabric and Texture/Weight for outermost layer only
- Indicate "*NONE*" if applicable
- Available codes:

Colors		***Fabrics***	***Textures***	***Weights***
Black	Charcoal gray	Natural	Soft	Heavy
Lt gray/silver	Brown	Synthetic	Slick	Medium
Gold/tan	Purple	Blend	Coarse	Light
Dark blue	Light blue			
Dark green	Light green			
Maroon	Red			
Orange	Yellow			
White	Other (specify)			
Pink				

	Clothing	Color	Fabric	Texture	Weight
HEADWEAR	Hat				
	Helmet				
	Hood				
	Other (specify): _____				
		Unknown	Unknown	Unknown	Unknown
UPPER BODY	Short Sleeve				
	Long Sleeve				
	Light Jacket				
	Heavy Jacket				
	Other (Specify): _____				
		Unknown	Unknown	Unknown	Unknown
LOWER BODY	Shorts				
	Pants				
	Shoes				
	Other (specify): _____				
		Unknown	Unknown	Unknown	Unknown