

STATE OF TENNESSEE

COUNTY OF Williamson

AFFIDAVIT OF ROBERT E. STAMMER, JR., Ph.D., P.E.

Personally, appeared before the undersigned attesting officer authorized by law to administer oaths, Robert E. Stammer, Jr., who after being duly sworn, deposes and says as follows:

1.

I am a licensed professional engineer, a traffic operations engineer, and have been regularly engaged in practice as a consulting traffic and roadway engineer under the business name of Stammer Transportation Engineering, Inc. in the state of Tennessee for over 30 years. I was practicing in this capacity in April 2019, and for each of the years subsequent to April 2019, and for each of the 5 years prior to April 2019.

2.

Attached hereto as Exhibit "1" is a copy of my curriculum vitae which sets forth my knowledge, skill, education, training and experience qualifying me as an expert in the field of traffic, roadway and transportation engineering, including roadway design, construction, operations, and maintenance. Said attachment is hereby incorporated by reference.

3.

I have had extensive education, training and experience in the area of transportation, roadway and traffic engineering, as well as roadway and traffic design, operations, construction and maintenance. This experience includes substantial study, application and use of American Association of State Highway and Transportation Officials (AASHTO) "Policy on Geometric Design of Highways and Streets," Federal Highway Administration ("FHWA") "Manual on Uniform Traffic Control Devices," AASHTO "Roadside Design Guide" and other standards on roadway design, construction, maintenance, and traffic operations.

4.

I have reviewed the following materials:

- (a) the State of Georgia Traffic Crash Report regarding the wreck on April 3, 2019 in Rockdale County on Highway 138 at approximately mile marker 17, north of Dial Mill Rd., involving a motor vehicle operated by Casey Cole;
- (b) available photos/videotape of the wreck scene;
- (c) "Manual on Uniform Traffic Control Devices," Federal Highway Administration; Georgia Department of Transportation (GDOT) Standard Specifications and Supplement; AASHTO "Policy on Geometric Design of Highways and Streets"; AASHTO "Roadside Design Guide" and other applicable literature, standards and industry publications;
- (d) industry and GDOT publications relating to roadway design, construction and maintenance;
- (e) photographs of the condition of Highway 138 in the vicinity of the subject wreck;
- (f) GDOT open records response (ORR #103-19 – Other) dated June 3, 2019 including documents, photographs and CDs labeled: Contract, Detail report, General Notes, Inspection Report, Measurements, and Plans;

5.

Facts shown in the above identified materials include the following:

- (a) On or about November 17, 2017, GDOT awarded Pittman Construction Company a contract to perform 5.710 miles of milling, inlay and plant mix resurfacing on Highway 138, Rockdale County, beginning at Sigman Rd and extending to the Rockdale-Newton County line. Pittman received a notice to proceed on the contract on January 22, 2018. Pittman began work on the project on or around June 10, 2018. Pittman completed the project on or about October 31, 2018. GDOT performed final inspections of Pittman's work on or about November 28, 2018;

- (b) State Route 138 (hereinafter "Highway 138"), in Rockdale County, Georgia, at or near milepost 17.36 consisted of three (3) lanes of travel in April 2019.
- (c) The contract for the project contained plans that Pittman was required to follow. The contract required the subject section of Highway 138 to be constructed with a safety edge. A safety edge is 30-40° angle asphalt fillet along each side of the roadway which allows a vehicle to more easily and safely reenter the roadway. At P-7 (GDOTORR_000431), labeled "Construction Detail – Pavement Edge Treatment", the plans state "General Notes: THE SAFETY EDGE SHALL BE CONSTRUCTED AS AN INTEGRAL OPERATION OF THE ROADWAY PAVEMENT PLACEMENT PROCESS."
- (d) On April 3, 2019, the shoulder/edge of pavement of the northbound lane of Hwy 138 at or near mile marker 17 did not have a safety edge in accordance with the contract between Pittman and GDOT. Instead, the vertical edge of pavement substantially deviated from its intended plan, design and construction as the vertical edge of pavement had an approximately 6-inch drop-off from the pavement onto the ground. Pictures of the edge of pavement drop-off are attached as Exhibit 2.
- (e) There was no sign or other traffic control devices warning motorists of the vertical edge of pavement drop-off on Highway 138 on April 3, 2019.
- (f) According to the Georgia Motor Vehicle Crash Report, at approximately 8:25 a.m. on April 3, 2019, Ms. Cole was driving south on Highway 138 in Rockdale County. Jessica Ferguson was traveling north on Highway 138 with her minor child in the backseat of her SUV. At approximately Mile Post 17, Ms. Ferguson's passenger side wheel dropped off the east side of the roadway, which had an approximately 6-inch drop-off from the pavement onto the ground. After dropping off the vertical pavement edge, Ms. Ferguson

attempted to get back on the roadway. As a result, Ferguson's SUV over-corrected, crossed the center line and hit Ms. Cole's vehicle head on.

- (g) According to the Georgia Motor Vehicle Crash Report, after impact, Ms. Cole's car went off the road and down a steep embankment on the west side of the roadway and struck a tree. Ms. Cole had to be extricated from the vehicle. She was pronounced dead at the scene of the wreck.

6.

In my professional opinion,

- (a) Vertical edge of pavement drop-offs in excess of two (2) inches like the one at the subject section of Highway 138 pose a well-known risk of "tire scrubbing," oversteering, and loss of control to vehicles, and result in foreseeable injuries and deaths to members of the motoring public. Vertical edge of pavement drop-offs of two (2) inches or less allow cars whose tires have dropped off the road to more easily and safely return to the road;
- (b) Generally accepted design and engineering standards in effect at the time the plans/design for the resurfacing, rehabilitation and/or restoration of the subject section of Highway 138 were prepared did not allow for a vertical edge of pavement drop-off in excess of two (2) inches;
- (c) GDOT design and engineering standards in effect at the time the plans/design for the resurfacing, rehabilitation and/or restoration of the subject section of Highway 138 were prepared required pavement edge treatment with installation of a tapered edge of not more than a 40° angle (aka Safety Edge), as defined and described by GDOT Design Manual - 6.5.2. Pavement Edge Treatment and as specified in the Contract;

- (d) Generally accepted maintenance standards require that roads be inspected, maintained and repaired so that they do not have a vertical edge of pavement drop-off in excess of two (2) inches;
- (e) Generally accepted design, engineering and maintenance standards require that motorists be warned of vertical edge of pavement drop-offs in excess of two (2) inches.
- (f) At the time of the April 3, 2019 wreck, the subject section of Highway 138 had a vertical edge of pavement drop-off of approximately six (6) inches. Therefore, it did not substantially comply with generally accepted design, engineering and maintenance standards in effect at the time of its plan/design and construction and was in a dangerous and unsafe condition and was so negligently defective that it was imminently dangerous to third persons.

7.

If GDOT planned and designed the subject section of Highway 138 with a vertical edge of pavement drop-off in excess of two inches, then, in my professional opinion, GDOT negligently violated generally accepted engineering and design standards in effect at the time of the preparation of the plan and design of Highway 138 because the subject section of Highway 138 had a vertical edge of pavement drop-off in excess of two (2) inches.

8.

If Pittman Construction Company built/repaved the subject section of Highway 138 with a vertical edge of pavement drop-off in excess of two inches, then, in my professional opinion, Pittman Construction Company negligently built/repaved the subject section of Highway 138. The vertical edge of pavement drop-off on the subject section of Highway 138 was inherently and intrinsically dangerous and so negligently defective that it was imminently dangerous to third persons.

9.

If Pittman Construction Company built/repaved the subject section of Highway 138 without a Safety Edge, then, in my professional opinion, Pittman Construction Company negligently built/repaved the subject section of Highway 138. The lack of a Safety Edge on the subject section of Highway 138 was inherently and intrinsically dangerous and so negligently defective that it was imminently dangerous to third persons.

10.

In my professional opinion, GDOT negligently violated generally accepted design, engineering and maintenance standards by failing to:

- (a) Adequately and properly inspect the subject section of Highway 138 for edge of pavement drop-offs. A reasonable inspection by GDOT of the subject section of Highway 138 would have shown that it had a vertical edge of pavement drop-off in excess of two (2) inches;
- (b) repair and maintain the subject section of Highway 138 so that it did not have an edge of pavement drop-off in excess of two inches and was in substantial compliance with generally accepted engineering and design standards in effect at the time of the design and construction of Highway 138;
- (c) warn motorists that the subject section of Highway 138 had a vertical edge of pavement drop-off in excess of two (2) inches.

11.

In my professional opinion, the above-described acts of negligence by GDOT and Pittman Construction Company directly and proximately caused the April 3, 2019 wreck which killed Casey Cole.

12.

The conclusion and opinions offered in this Affidavit are based on facts and data of the

type usually relied upon by experts in the field of civil engineering, roadway design, construction, maintenance and inspection, and traffic engineering. The opinions and conclusions are the product of reliable principles and methods, and in arriving at said opinions and conclusions, I have applied the principles and methods in a reliable, and scientific manner to the facts of this case and have used a methodology commonly accepted and employed in the fields of traffic engineering and roadway design, construction, maintenance and inspection.

12.

I hold the conclusions and opinions offered in this Affidavit to a reasonable degree of professional certainty in my areas of expertise detailed above and in my curriculum vitae attached hereto.

13.

This Affidavit is not intended to set forth each and every allegation of negligence or each and every detail which is known by me or learned by me with regard to the above-captioned case, but is intended only to set forth my preliminary opinions with regard to negligence and the source of the facts which serve as the basis of those opinions. The opinions expressed herein are based on the information available to me at the present time and I may have additional or different opinions based on information developed during the course of discovery in this case.

[DATE AND SIGNATURE ON FOLLOWING PAGE]

FURTHER AFFIANT SAYETH NOT.

Robert E. Stammer, Jr.
Robert E. Stammer, Jr., Ph.D., P.E.

Sworn to and subscribed before me
this 24 day of March, 2021

Michael Mitchell
NOTARY PUBLIC

