In the

Supreme Court of the State of Fremont

WILLIAM ASHPOOL,

Petitioner,

V.

EDISON INCORPORATED, A FREMONT CORPORATION

Respondent.

On Writ of Certiorari to the
Supreme Court of the State of Fremont

BRIEF FOR PETITIONER

QUESTIONS PRESENTED

- I. Whether the appellate court erred in affirming the trial court's denial of Petitioner's motion for judgement as a matter of law on the design defect claim under the risk-utility test?
- II. Whether the duty to retrofit should be adopted in the State of Fremont in certain strict liability design defect claims as was decided by the appellate court?

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BRIEF FOR PETITIONER

OPINIONS BELOW

The opinion and judgement of the Court of Appeals for the State of Fremont, dated January 1, 2021, affirming the District Court's decision, is reported and appears as *Ashpool v*. *Edison, Inc.*, 2021 Fremont Dist. XE No. 20-1000 (Fremont 2021).

STATEMENT OF THE CASE

I. Factual Background

Petitioner William Ashpool is a fifty-five-year-old social worker who frequently drives around the county to conduct his work. (R. at 3). Respondent Edison is an automobile company that developed the Marconi economy vehicle after a market analysis indicated consumers placed the highest value on safety and convenience. (R. at 2, 3). The Autodrive feature utilizes sensors to analyze and assess road conditions, speed limits, traffic lights, and other drivers to provide a real-time semi-autonomous driving experience. (R. at 2). Included within this semi-autonomous experience is the Marconi's ability to receive sensory data and control the vehicle as a human would by stopping, accelerating, changing gears, and maneuvering the vehicle to avoid obstructions. (R. at 2, 3). As the Edison salesperson boasted to Ashpool, the Marconi would allow Ashpool to input his desired location in the GPS and enjoy the ride without any further input. (R. at 4).

On December 20, 2019, a short three months after Ashpool purchased the Marconi, Ashpool was driving along Route 27 when the Autodrive feature failed to detect a stationary object obstructing the road. (R. at 4). As a result of Autodrive's failure to detect the stationary object, Ashpool violently crashed into a bear sitting in the middle of the road and suffered extensive injuries. (R. at 4). Ashpool spent two and a half weeks in the hospital recovering from a dislocated shoulder, five broken ribs, broken wrist, concussion, and whiplash. (R. at 4). Despite traveling only forty-two miles per hour, Ashpool's insurer deemed his Marconi a total loss while the bear remained unscathed. (R. at 4). While Autodrive provides a driver the ability to override and steer as he sees fit, the sensor's failure to detect the obstruction provided no opportunity for Ashpool to take control. (R. at 3).

Prior to its release in 2017, Edison performed numerous safety tests on the Autodrive feature and found troubling deficiencies in its sensors. (R. at 5). Despite being lower than the standard speed for most roadways, Edison discovered the Autodrive sensors had difficulty detecting stationary objects when driving above thirty-five miles per hour. (R. at 5). Petitioner's expert conducted similar crash and safety tests and concluded that the vehicle was thirteen percent less likely to detect a stationary object when traveling above such speed. (R. at 5). Although Mr. Reeves, Edison's CEO, claimed the Marconi remained safe as-is because an attentive driver would notice a stationary object, Ashpool used the feature numerous times prior to the incident successfully and, at the time of the incident, had both hands on the wheel as required to operate the Autodrive feature and failed to detect the stationary object. (R. at 4, 5). The Autodrive feature also allows Edison to continually update the software on each model without creating new vehicles, primarily by sending updates directly to the vehicle to maintain the highest safety standards. (R. at 5). Utilizing the update feature, Edison can send a notification to Marconi drivers each time the car is started until the update is installed. R. at 5. While some updates relate to cosmetics, its primary use is for safety purposes. (R. at 5).

Despite Edison's early knowledge of the Autodrive's failures, it abandoned any attempt to rectify the issues because additional sensors would allegedly make the Marconi too expensive for the economy sedan market. (R. at 5). There is also no record of an attempt by Edison to utilize its update feature to notify drivers of the sensor issue and the costless process of correcting the sensor issue through its update software. (R. at 5).

II. Proceedings Below

Petitioner William Ashpool filed the instant products liability tort action against Respondent Edison Incorporated in Hayward County District Court on January 1, 2021 to recover from Edison for personal injuries suffered while operating his Edison Marconi economy sedan. (R. at 1, 4.) The case was tried before a jury and found in Edison's favor after the court sustained Edison's objection to the inclusion of a duty to retrofit in Ashpool's jury instructions and denial of Ashpool's motion for a judgement as a matter of law. (R. at 1, 6, 7). After the jury returned its verdict, Ashpool renewed his motion judgement as a matter of law and subsequently denied by the court. (R. at 7). Shortly after, Ashpool filed a notice of appeal, arguing the trial court erred in its refusal to include the duty to retrofit in its jury instructions and erred in its denial of Ashpool's renewed motion for judgement as a matter of law. Oral arguments commenced on October 22, 2020 and, on January 1, 2021, the Court of Appeals for the State of Fremont issued its opinion affirming the district court's judgement. (R. at 1, 18).

SUMMARY OF ARGUMENT

I.

The lower court erred in affirming the trial court's denial of Petitioner's motion for judgment as a matter of law. The lower court's ruling miscalculates the factors adopted by this Court in weighing the risk-utility test by underestimating the likelihood and severity of foreseeable injury while overestimating the impracticability of Petitioner's reasonable alternative design.

The lower court erred in underestimating the likelihood and severity of injury by failing to take into account publicly available crash statistics at the time of distribution which, coupled with Respondent's own test data, demonstrated the high prevalence of fatal motor vehicle crashes involving stationary objects and speeds in excess of thirty-five (35) mph. According to statistics disseminated by the Federal Highway Administration and the National Highway Transportation Safety Administration not only is there a significant portion of all fatal motor vehicle crashes attributed to collisions with stationary objects but nearly all fatal motor vehicles crashes occur in zones with speed limits of thirty-five (35) mph or higher. Furthermore, the severity of foreseeable injury weighs heavily in Petitioner's favor due to the dangerously high healthcare costs that may foreseeably be incurred by victims of Respondent's product. As such, the lower erred in determining that the first two factors of the risk-utility test weighed in Respondent's favor.

The lower court erroneously decided that the remaining factors of the risk-utility test weighed in Respondent's favor by focusing too heavily on Respondent's alleged financial cost of including the additional sensors without properly balancing it against the "gravity and severity of the danger posed by the design" and the reasonable alternative design's ability to mitigate that danger. Respondent's own market research determined that their target market placed a premium

on safety over gadgetry and performance and, therefore, a reasonable consumer may be more inclined to accept the additional financial burden for a safer alternative. The lower court's logic also implies that all uses of Respondent's product will take place during optimal weather conditions rather than in the reality of ever-changing and suboptimal weather conditions which may increase the user's reliance on the very sensors which Respondent chose to omit from its product.

For these reasons, this Court should reverse the lower court's affirmation of the denial of Petitioner's motion for judgment as a matter of law.

II.

The Court of Appeals for the State of Fremont set forth a test to guide lower courts when applying a duty to retrofit in design defect claims where: (1) the product implicates human safety; (2) there is a continuing relationship between manufacturer and consumer; and (3) the manufacturer had knowledge of a defect after the product was in the hands of the consumers. This test is not one to be used arbitrarily, but when the facts and circumstances of a case call for its application. The Court of Appeals outlined a thorough analysis of how to apply each factor of the test and when a rejection is warranted.

The overall goal of imposing this duty is to protect consumers from preventable injuries or even death. When there is a grave danger for human safety, combined with manufacturer knowledge and the ability to remedy the defect, the duty to retrofit should be imposed on manufacturers in the State of Fremont.

ARGUMENT

I. THE REFUSAL TO GRANT PETITIONER'S MOTION FOR JUDGEMENT AS A MATTER OF LAW MISAPPLIES THE RISK-UTILITY TEST AND VIOLATES PUBLIC POLICY.

The Court of Appeals for the State of Fremont, in denying the Petitioner's motion for judgment as a matter of law (hereafter "JMOL"), misapplied the risk-utility test adopted by this Court in *Toyoma Motors, Inc.*. (R. at 9). In its ruling, the lower court failed to properly balance the risk Edison's technology, and their omission of key components, posed not only to the driver but to the general public against the supposed impracticability of their inclusion. As such, this court should reverse the lower court's ruling denying Petitioner's motion for judgement as a matter of law.

As stated in the lower court's ruling, a court must balance six factors in order to determine if the product's risk outweighs its utility. Those factors include:

1) Whether the severity of the injury was foreseeable by the manufacturer; 2) whether the likelihood of injury was foreseeable by the manufacturer at the time of distribution of the product; 3) whether there was a reasonable alternative design available; 4) whether the available alternative design was practicable; 5) whether the available and practicable reasonable alternative design would have reduced the foreseeable risk of harm posed by the product; and 6) whether the omission of the alternative design rendered the product not reasonably safe.

(R. at 9, 10) (citing Peck v. Bridgeport Machs., Inc., 237 F.3d 614, 617 (6th Cir. 2001)).

The lower court underestimated the likelihood and severity of the injuries caused and potentially caused by Edison's omission of additional sensors and overestimated the impracticability of including those same safety measures. Their ruling, therefore, is a violation of the public policy which requires manufacturers to take all reasonable steps to protect the user and public at large before injecting their product into the stream of commerce. As such, the denial of

Petitioner's JMOL is a clear error that should be corrected by this Court in the interests of public policy.

A. The proper estimation of the likelihood and severity of injury foreseeably caused by Respondent's product weighs in Petitioner's favor.

While the lower court correctly chose the risk-utility test as the applicable standard under State of Fremont precedent, the lower court dangerously miscalculated the likelihood and severity of injury that was foreseeable by Edison at the time of distribution of the Marconi semi-autonomous electric vehicle. Edison's own safety research and public domain research available to Edison at the time of distribution illustrate, not only Edison's knowledge of, but also the gravity of the likelihood and severity of injury their product posed to their consumers and the general public.

i. Likelihood

First and foremost, the lower court is correct in establishing that the balance of risk and utility must be judged by the facts available at the time of distribution. *See* Restatement (Third) of Torts: Products Liability § 2 cmt. a. (1998). However, the lower court failed to properly account for the facts known, or that should have been known, by Edison at the time of distribution. *See generally Branham v. Ford Motor Co.*, 390 S.C. 203, 227, 701 S.E.2d 5, 17 (S.C. 2010) ("the judgment and ultimate decision of the manufacturer must be evaluated on what was known or "reasonably attainable" at the time of manufacture) (emphasis added). Respondent admitted during trial that they did perform numerous crash and safety tests as required by the National Highway Traffic Safety Administration ("NHTSA"). (R. at 4). During those crash and safety tests, Respondent determined that "the sensors had difficulty identifying stationary objects when the vehicle was driving above thirty-five (35) mph. (R. at 4, 5). While the record is silent as to how much higher the accident rate for stationary objects above thirty-

five (35) mph was over other hazards, it is entirely likely, probable even, that Edison's own tests were comparable or, indeed, higher than the accident rate proposed by Petitioner's expert witness. To that point, the accident rate determined during Edison's own testing was significant enough that the Respondent originally planned on including the additional sensors to alleviate the risk to the consumer. (R. at 5).

There is also a wealth of publicly available data that Respondent had access to which evidenced the likelihood of injury their product could cause. According to the Federal Highway Administration ("FHWA"), the United States is blanketed by more than 164,000 miles of highway as part of the National Highway System as of 2011. Federal Highway Administration, *Our Nation's Highways: 2011*, Office of Highway Policy Information (last modified November 7, 2014)

https://www.fhwa.dot.gov/policyinformation/pubs/hf/pl11028/chapter1.cfm#:~:text=Since%20th e%20early%2020th%20century,million%2Dmile%20public%20road%20network. Of those highways, approximately 132,320 miles of highway (or approximately 80%) had a posted speed limit of 60 mph or greater as of the year 2000. Federal Highway Administration, *Highway Information Quarterly Newsletter: April 2002*, Office of Highway Policy Information (last modified March 29, 2018) https://www.fhwa.dot.gov/ohim/hiq/hiqapr02.htm#topicA.

Additionally, crash data compiled by the NHTSA shows that in 2014 there were a total of 29,989 police reported fatal motor vehicle crashes and 1,648,000 injuries. National Highway Transportation Safety Administration, *Traffic Safety Facts 2014: A Compilation of Motor Vehicle Crash Data*, 70, https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812261. Of those 29,989 fatal motor vehicle crashes 9,740 (32.48%) were the result of collisions with stationary, or "fixed" objects. *Id.* Finally, out of a total of 44,858 vehicles involved in fatal

crashes, 40,485 of those vehicles (or approximately 90%) were traveling in areas with speed limits of thirty-five (35) mph or above, no statutory speed limit, or an unknown speed limit. *Id.* at 79.

The above data and their own crash tests show that Respondent had ample constructive knowledge at the time of distribution of the fact that if their product were involved in a motor vehicle collision it had a 32% chance of being a collision with a stationary object and a 90% chance of occurring at speeds higher than 35 mph.

ii. Severity

As to the severity of foreseeable injury, in addition to the above statistics which focuses solely on fatal motor vehicle crashes, the lower court erred in ruling that that there was no predistributional evidence that Respondents could have reasonably attained due to the amble information available concerning healthcare costs in the United States.

According to the Health Care Cost Institute's 2015 Health Care Cost and Utilization Report (whose data only covers individuals sixty-five (65) and younger AND covered by employer-sponsored insurance), healthcare spending averaged \$5,141 per individual in 2015. Health Care Cost Institute, 2015 Health Care Cost and Utilization Report, i (November 2016) https://healthcostinstitute.org/images/pdfs/2015-HCCUR-11.22.16.pdf. Comparatively, annual healthcare spending in Ohio, Kentucky, and Tennessee averaged \$5,364, \$5,093, and \$5,041 respectively. Id. at 27. In today's world, hospital visits cost an average of \$3,949 per day. Bill Fay, Hospital and Surgery Costs, Debt.org (updated May 22, 2020) https://www.debt.org/medical/hospital-surgery-costs/. In the instant case, Petitioner spent two and a half weeks in the hospital as a result of the collision. (R. at 4). While the record is silent as

to his particular healthcare costs, using the average posited by Debt.org with a hospital stay of seventeen days, Petitioner would have suffered approximately \$67,133 in average hospital costs.

Moreover, the average base salary of a Social Worker in Cincinnati, Ohio, for example, is \$43,060 per year with a top end range of up to \$58,000, equating to a weekly wage of \$828.08 or \$1,115.38, respectively. *Social Worker Salaries in Cincinnati, OH Area*, Glassdoor (last visited January 29, 2021), https://www.glassdoor.com/Salaries/cincinnati-social-worker-salary-SRCH_IL.0,10_IM170_KO11,24.htm. As a further example of the foreseeable severity of injury caused by Respondent's product, under the Ohio workers' compensation schedule, a social worker injured while on duty would only be entitled to 72% of their weekly wage for the first twelve weeks of recovery, equating to a weekly wage of only \$596.22 (\$2,782 difference over 12 weeks) and \$803.08 (\$3,747.60 difference over 12 weeks), respectively. *Ohio Workers' Compensation Rates*, Stewart Jaffy & Assoc. Co., L.P.A. (last visited January 29, 2021), https://www.jaffylaw.com/ohiowc-learn/rates/.

As a result, Respondents had ample constructive knowledge, from a strictly economic view, that the severity of injury caused by their product was foreseeably high due to rising healthcare costs and loss of income from even the most minor of hospitalizations resulting from a motor vehicle crash. For these reasons, the lower court erred in ruling that the severity and likelihood elements of the risk-utility test weighed in Respondent's favor.

B. The lower court erred in overestimating the impracticability of Petitioner's reasonable alternative design against the risks of its omission.

The lower court erred in deciding that the remaining factors of the risk-utility test weighed in favor of Respondent by focusing solely on the alleged monetary cost of the reasonably alternative design. While the financial cost of such a design is a factor, and often an important factor in practicability, the lower court incorrectly focuses its analysis on

Respondent's alleged burden without properly considering other factors or balancing that cost against the risk of injury.

Two such factors not considered by the lower are further outlined in *Banks*: "the gravity and severity of the danger posed by the design" and "the avoidability of the danger, i.e. the user's knowledge of the product." *Banks v. ICI Ams.*, 265 Ga. 732, 450 S.E.2d 671 (Ga. 1994) n. 6. While the court in *Banks* elaborates that practicability may be demonstrated as "at the time the product was manufactured, an alternative design would have made the product safer than the original design and was a marketable reality and technologically feasible", Respondent's claim that the additional sensors were too expensive does not alleviate their burden of liability in the face of the omission's inherent risk. *Id.* at 674-75. "A proper risk-utility analysis encompasses more than just cost assessment. It also questions the riskiness of the product to begin with and whether that risk so outweighed the burden of implementation of an alternative design as to mandate the use of the alternative design." *McFarlin v. N.H. Ins. Co.*, 2016 U.S. Dist. LEXIS 85990 at *14-15 (W.D. La. June 30, 2016).

Respondent's claim that the addition of the sensors would have taken the Marconi out of the economy class range of vehicles is disingenuous given its inclusion of their own market research revealing that their target market for the Marconi vehicle valued **safety** over high-tech gadgets. (R. at 2, 11, 12) ("Edison's market analysis indicated that consumers in the economy range placed a higher premium on safety features and ease of use over cutting-edge technology and high performance...."). To that point, the lower court failed to determine that a reasonable consumer in the market for such a vehicle would be more, rather than less, inclined to opt for the premium price safe in the knowledge that Respondent had exhausted every reasonable alternative design to produce a vehicle as feasibly safe as possible.

Furthermore, the lower court underestimated the ability of the reasonably alternative design to limit the risk of injury suffered by Petitioner. In their ruling, the lower court surmised that the omission of the additional sensors merely limited the safety warning systems and did not affect the user's ability to perceive and avoid obstacles within their own sight. (R. at 12). However, the lower court's reasoning implies that every user's driving experience will take place in clear, sunny weather with a clear line of sight to the horizon, which is wholly detached from the reality of common driving experiences. Such reasoning fails to account for fog, heavy rain, or other obstructive weather conditions where a user's perception may be greatly limited in what they can see ahead of them. Respondent developed and marketed a system which purports to give the user an early warning of possible dangers, and on which reasonable users have relied, while omitting the equipment necessary to detect objects beyond the user's vision in suboptimal weather. Their reasoning, and the lower court's affirmation, of the omission based purely on profit concerns against the obvious likelihood and severity of injury above is unconscionable.

Therefore, the lower court erred in their denial of Petitioner's motion for judgment as a matter of law by failing to properly balance the risk-utility test in Petitioner's favor. According to Respondent's own crash and safety research and data that was reasonably attainable by Respondent, omission of the additional sensors to detect oncoming stationary objects posed a grave, foreseeable, and highly likely danger not only to users of their product but to the public at large. As demonstrated above, in 2014 approximately 90% of all vehicles involved in fatal motor vehicle crashes were traveling in areas with speed limits exceeding 35 mph, with more than 30% of all fatal motor vehicle crashes resulting from collisions with stationary objects. Respondent's decision to omit the very technology that would assist in the mitigation of those same instances in the name of profit is unconscionable. This is especially reprehensible in light of the paltry cost

of inclusion against the devasting financial burden that could result from even a minor injury caused by their product as noted above.

It is for these reasons that this Court should reverse the lower court's decisions and grant Petitioner's motion for judgment as a matter of law.

II. THE DUTY TO RETROFIT SHOULD BE ADOPTED IN THE STATE OF FREMONT IN CERTAIN STRICT LIABILITY DESIGN DEFECT CLAIMS TO FULLY PROTECT ITS CONSUMERS AS A MATTER OF PUBLIC POLICY.

"A duty to retrofit is a duty to upgrade or improve a product." *Ostendorf v. Clark Equip.*Co., 122 S.W.3d 530, 533, 2003 Ky. LEXIS 260 (Ky. 2003). Although a majority of courts have declined to impose a duty to retrofit, it has been applied by some courts in limited circumstances and specialized markets including helicopters and airplanes. *See Bell Helicopter Co. v.*Bradshaw, 594 S.W.2d 519, 1979 Tex. App. LEXIS 4531; Braniff Airways, Inc. v. Curtiss-Wright Corp., 411 F.2d 451, 1969 U.S. App. LEXIS 12332 (2d Cir. 1969). "It is clear that after such a product has been sold and dangerous defects in design have come to the manufacturer's attention, the manufacturer has a duty [] to remedy these[.]" *Id.* at 453. Fremont should adopt the duty to retrofit in cases where the elements set forth by the lower court are met. As noted by the lower court, the duty to retrofit should not be unlimited. (R. at 15). When human safety is involved and manufacturers are aware of a dangerous defect *after* the consumer has possession, the courts should have the discretion to apply the necessary test.

A. A three-part test should be used in Fremont to determine the applicability of the duty to retrofit.

A duty to retrofit should be adopted in Fremont where: (1) the product implicates human safety; (2) there is a continuing relationship between manufacturer and consumer; and (3) the manufacturer had knowledge of a defect after the product was in the hands of the consumers. (R. at 15, 16).

i. When a product by nature implicates human safety, a duty to retrofit should be considered.

"...The respondent was under a 'continuing duty to improve its propeller system in view of the factor of human safety involved' and that it breached this duty." *Noel v. United Aircraft Corp.*, 342 F.2d 232, 236, 1964 U.S. App, Lexis 3633 (3d Cir. 1964). When design defects threatening "human safety" come to the attention of the manufacturer after the sale of a product, "the manufacturer has a duty either to remedy these or, if complete remedy is not feasible, at least to give users adequate warnings and instructions concerning methods for minimizing the danger." *Braniff Airways, Inc.*, 411 F.2d at 453. When human safety is a known risk, the manufacturer owes this duty to retrofit the product for the consumer.

In *Noel*, the survivors of the decedent filed a negligence action for the wrongful death caused by an airplane accident. The court found that United Aircraft Corporation had ample notice of instances of over-speeds that prevent the propeller from feathering, increasing the likelihood of the loss of the plane. 342 F.2d at 232. Specifically, the court held that the corporation knew that the inability to feather could lead to a fire and propeller separation. *Id*.

In *Braniff*, another airplane case, an airline brought actions against the manufacturer of the airplane for injuries sustained in an airplane crash. *Braniff Airways, Inc.*, 411 F.2d at 451. The court found that there was sufficient evidence that the manufacturer knew the cylinder wall in the engine was scuffed, the manufacture had changed the design of the engine, and the manufacturer knew of instances where such a change in design caused the scuffing but took no effective action to remedy the problem. *Id.* In both cases, the courts applied a duty to remedy or a duty to warn where a remedy is not feasible. The defendant's failure to fix the problems they were well aware of took the life of at least one human and injured others.

In the present case, as noted by the lower court, a semi-autonomous vehicle that carries human passengers no doubt implicates human safety. (R. at 16). The court also points out that not only passenger safety is at risk, but pedestrian as well. (R. at 16). The Marconi is supposed to be equipped with sensor technology that would assess road conditions, including stationary or moving objects in the road, such as a pedestrian.

Therefore, using the same analysis set forth in *Noel* and *Braniff* would likely lead a court to find similarly to the lower court that an automobile case would meet the requirements for the first factor of Fremont's test.

ii. If there is a continuing relationship between the manufacturer and the consumer, part of that relationship includes the duty to retrofit.

"In cases in which a manufacturer or distributor has a continuing relationship with its customers, e.g., maintenance or service, a plaintiff might show that the continuing relationship should have alerted the company to a dangerous condition in the use of its products." Michael L. Matula, *Manufacturers' Post-Sale Duties in the 1990s*, 32 Tort & Ins. L.J. 87 (1996).

The court in *Noel* found that there was evidence of a continuing relationship based on the fact that "the respondent's field service department advised LAV with regard to the maintenance, overhaul and operation of the propeller system and supplied it with service." *Noel*, 342 F.2d at 241. There was also evidence that the manufacturer regularly examined statistics, failures and catastrophes that can result from the equipment. *Id.* Additionally in *Bell*, "Bell assumed the duty to improve upon the safety of its helicopter by replacing the 102 system with the 117 system." *Bell Helicopter Co. v. Bradshaw*, 594 S.W.2d at 532. The court determined when Bell replaced the system, they created a continuing relationship and were obligated to complete the remedy. *Id.* In both cases, evidence of the manufacturer going beyond just an ordinary sale was used in establishing this "continual relationship."

In the present case, the lower court noted other courts have traditionally not found a continuing relationship between car manufacturers. (R. at 16). Despite the lower court's finding of no continuing relationship between Edison and Ashpool as a result of their characterization that the software updates were for "convenience" and not "safety," the record establishes Edison's purpose was to "continuously update its vehicles and maintain the highest of safety standards, without having to make entirely new vehicles." (R. at 3, 17). As such, the continuous updating of vehicles and maintaining the highest of safety standards is, in fact, similar to the decisions of *Noel* and *Bell* where the needed maintenance was a matter of consumer safety.

Therefore, it is likely a court would find a continually updating software system to maintain the highest of safety standards and remove the need to create entirely new vehicles would satisfy the requirement of a continuing relationship.

iii. If manufacturers have knowledge of a defect after the product was in the hands of the consumer, the manufacturer has a duty to inform and remedy the defect.

"If the actor does an act, and subsequently realizes or should realize that it has created an unreasonable risk of causing physical harm to another, he is under a duty to exercise reasonable care to prevent the risk from taking effect." Restatement (Second) of Torts § 321 (1965).

As stated earlier, in both *Noel* and *Braniff*, the manufactures were aware of the risks associated with their products and neglected to remedy the defects. In *Noel*, the corporation knew of that over-speed had occurred and would likely lead to a plane loss. *Noel*, 342 F.2d at 232. In *Braniff*, the manufacturer knew that their design led to engine scuffing, resulting a crash. *Braniff*, 411 F.2d at 451. The faulty design alone was not enough for the court to impose a duty to retrofit. The manufacturer's knowledge and failure to act were the basis of both courts' reasoning.

In the present case, the lower court noted there was no doubt Edison knew of the defects. (R. at 17). Edison knew before the Marconi left the manufacturer that there was a potential for accidents going over thirty-five miles-per-hour. (R. at 17). In fact, at the time of Ashpool's accident, there were twelve other incidents alleging failures in the sensors. (R. at 17). Using the facts from the case and the same analysis in *Noel* and *Braniff*, there is sufficient evidence of knowledge on behalf of the manufacturer. In similar situations, the court would analyze when and how the manufacturer had knowledge of the alleged defect.

Therefore, it is likely a court would find similarly to the lower court that Edison was aware of the defects after the product was in the hands of the consumers

B. The duty to retrofit is distinguishable from the duty to warn as a valid theory of tort liability and should be adopted by the State of Fremont as a matter of public policy.

As the lower court noted, there is already a clearly established post-sale duty to warn. (R. at 13). The rationale behind a duty to warn is to maintain the safety of consumers, primarily when a problem with a product becomes known. (R. at 14). The same rationale extends to the duty to retrofit. (R. at 14). "The rule as to when a manufacturer or seller must warn is this: a manufacturer or seller of a product which, to his actual or constructive knowledge, involves danger to users has a duty to give warning of such danger." R. D. Hursh, *Manufacturer's or Seller's Duty to Give Warnings Regarding Product as Affecting his Liability for Product-Caused* Injury, 76 A.L.R.2d 9 (1961).

A duty to warn is simply that: just a warning. The courts have adopted a duty to warn on the rationale of consumer safety, but this duty fails to close the gap between those who heed the warnings those who don't. Some people will inevitably continue to use dangerous products simply because they do not have any other choice. A warning that one's car is no longer safely

operating is a huge economic burden. The average consumer does not have the luxury of refusing to use that car at the fault of the manufacturer. People will continue to use unsafe products when it is their only choice, even if it means risking their lives. If the ultimate goal is consumer safety, then a duty to retrofit would be far more encompassing.

In order to fully protect consumers from defects that arise after they purchased a product, Fremont should adopt and impose a duty to retrofit on manufacturers in specialized fields such as planes, helicopters, and in the present case, semi-autonomous vehicles. This is especially true when there is a grave danger for human safety, the evidence of the case shows the manufacturer knew about this danger, new technology or adaptions would have prevented the injury, and the manufacturer failed to do anything to remedy it.

CONCLUSION

For the reasons stated above, the Court should find the lower court erred in affirming the trial court's denial of Ashpool's motion for judgement as a matter of law on the design defect claim under the risk-utility test. The Court should further find that the duty of retrofit should be adopted in the State of Fremont in certain strict liability design defect claims as was similarly decided by the lower court.