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IN THE SUPERIOR COURT OF THE STATE OF ARIZONA
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IN AND FOR THE COUNTY OF MARICOPA
12

STATE OF ARIZONA	Case No: CR2020-001853-001
Plaintiff,	
vs.	**DEFENDANT'S MOTION TO REMAND FOR A NEW DETERMINATION OF PROBABLE CAUSE PURSUANT TO RULE 12.9** ***ARIZONA RULES OF CRIMINAL PROCEDURE***
RAFAEL(A) VASQUEZ	
Defendant.	
	(ORAL ARGUMENT REQUESTED)

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20   Rafael(a) Vasquez, through Counsels undersigned (Counsels), moves to remand this

21   case for a new finding of probable cause under Rule 12.9, *Arizona Rules of Criminal*

22   *Procedure*. This motion should be granted because Ms. Vasquez was denied her right to

23   have the State present evidence to the Grand Jury in a fair and impartial manner, thus

24   violating substantial constitutional rights afforded to her under the Fifth, Sixth, Eight, and

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Fourteenth Amendments to the United States Constitution and her parallel rights under the Arizona State Constitution. The indictment was returned against her without the benefit of the grand jury being presented with clearly exculpatory evidence and the presentation was so tainted that this Court must remand this matter back to the grand jury.

I.   <u>INTRODUCTION</u>

On March 18, 2018, Elaine Herzberg, impaired by methamphetamine and dressed in dark clothing, started across a darkened section of Mill Avenue, mid-block, while pushing a bicycle that lacked proper reflectors and a front headlight, when she was struck by an Uber automated test vehicle. The State asserts that the collision occurred because Ms. Vasquez, the operator of the Uber automated vehicle, was watching a television program on her phone, rather than watching the road. As a result, the State asserts that she is guilty of negligent homicide. That assertion is demonstrably false. The reality is that Ms. Vasquez was doing exactly what her employer had instructed her to do. Tragically for Ms. Herzberg Uber not particularly interested in safety.

We can afford to make mistakes. We can't afford to slow down.

Email from Dara Khosrowshahi, CEO Uber to C Suite
March 19, 2018, one day after fatal collision

Such was the culture at Uber. Arizona wasn't much interested in safety either.

Arizona welcomes Uber self-driving cars with open arms and wide-open roads. While California puts the brakes on innovation and change with more bureaucracy and more regulation, Arizona is paving the way for new technology and new businesses. In 2015, I signed an executive order supporting the testing and operation of self-driving cars in Arizona with an emphasis on innovation, economic growth, <u>and most importantly, public safety</u>. This is about economic development, but it's also about changing the way we live and work. Arizona is proud to be open for business. California may not want you, but we do.

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On December 16, 2016, California's Attorney General threatened to take legal action against Uber if the company did not immediately remove its self-driving cars from the streets of San Francisco. Consumer Watchdog, a non-profit organization led the charge, contacting the Attorney General's Office to report that Uber's automated vehicles had been spotted running red lights. While California had authorized some companies to test self-driving vehicles on its roadways, Uber was not one of those companies. Not only had Uber failed to seek permission from the state to do so, it had also failed to meet the necessary requirements required by law, like reporting failures with self-driving technology, and refusing to follow California's safety regulations which were designed to protect the public.

Arizona Governor Doug Ducey ("The Governor"), motivated by self-interest, seemingly unconcerned with public safety and either ignorant of, or untroubled by, Uber's well-established reputation as a poor corporate citizen, leapt at the opportunity to bring Uber to Arizona.[1] The lure for Uber was the promise of minimal regulation. The Governor had established a relationship with the company in 2015. The two shared a common philosophy - profits over people. This union was advantageous toUber and The Governor but not so for Uber employees and the citizens of Arizona.

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[1] https://money.cnn.com/2016/08/11/technology/uber-lawsuits/index.html

Emails between The Governor and Uber obtained through a public records request by *The Guardian* detail Uber's efforts to inveigle The Governor by heaping praise on him, offering him the use of the company's luxury office spaces and by vowing to bring both money and jobs to Arizona.[2] In exchange, The Governor and his staff, massaged local officials in order to get favorable treatment for Uber, promoted the company by tweeting advertisements from The Governor's Twitter page at the company's request, and most importantly issued decrees that provided the company with the opportunity to test its autonomous vehicles on Arizona's roadways *sans* regulation.

In June of 2015 Uber opened a customer service center in Phoenix. Two months after that, at a joint press conference, The Governor announced that Uber was going to gift $25,000 to the University of Arizona. Later that day, The Governor issued Executive Order 2015-09 ("The Order") authorizing the use of self-driving vehicles, with or without a pilot or operator in the vehicle, to drive on the campuses of Arizona universities, without any evidence that Uber had a safety plan or was concerned with safety in any way.[3] The Order received minimal coverage in the press.

Then, in August of 2016, without much fanfare, The Governor quietly approved Uber's testing program. The public would not learn of the program until The Governor's public pronouncement in December of 2016, four months after the vehicles had already hit the roads. However, it wasn't only The Governor who failed to protect the public. No

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[2] https://www.theguardian.com/technology/2018/mar/28/uber-arizona-secret-self-driving-program-governor-doug-ducey

[3] https://azgovernor.gov/executive-orders

1   person or entity tasked with protecting the citizens of Arizona seemed even remotely

2   concerned with the safety of the public. Shortly after The Governor's announcement, the

3   Arizona Department of Transportation ("ADOT") echoed The Governor's promise of

4   minimal regulation.

> *Part of what makes Arizona an ideal place for Uber and other
> companies to test autonomous vehicle technology is that there
> are no special permits or licensing required.*

     To Uber, Arizona was an unregulated Shangri-La, a paradise for a company who put

profits over people. Uber wasted no time getting more of its autonomous vehicles out on the

streets of Arizona.

     The Governor's and ADOT's failure to impose any meaningful preconditions on Uber

demonstrated a blatant disregard for the safety of the operators of the vehicles, and

endangered the safety of pedestrians, cyclists and other motorists too.[4] Other states that

authorized the testing of automated vehicles on public roadways, required developers to

submit applications and risk management plans specifying the manner in which the

developer intended to manage the known risks associated with automation complacency, a

predictable and typical consequence of automation. Arizona did not. Uber provided Arizona

with nothing - which is exactly what Arizona asked of Uber.

     The vehicles that Uber put on the road, like the Volvo involved in the March 18, 2018

crash, were equipped with an automated driving system "(ADS")", a program designed by

Uber software engineers which prioritized passenger comfort over the public's safety. In

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[4] Uber operators were required to possess a driver's license and the company needed to provide proof of financial responsibility.

ADS mode, it was the car's systems, not the humans in those cars, that performed all driving tasks, including changing lanes, overtaking slow-moving or stopped vehicles, turning, and stopping at traffic lights and stop signs. Although the system was designed to be fully automated, a human operator inside the vehicle was tasked with <u>overseeing</u> the system's operation, <u>monitoring</u> the driving environment, documenting issues with the car, and if necessary, taking control of the vehicle and intervening in an emergency.

If The Governor's true motivation for putting Uber's vehicles on the streets of Arizona was his concern for public safety, as he claimed in his press release announcing the rollout, there was no evidence to support the premise that automated vehicles were any safer than those driven by human beings. Had safety been a priority, surely someone in The Governor's office would have asked Uber for a copy of the company's safety policy. Had anyone done so they would have learned the company had no safety policies. In 2017 Arizona was already the most dangerous state in the nation for pedestrians.[5] Circumstances were about to get much more dangerous for Arizonans.

The National Transportation Safety Board ("NTSB"), an independent governmental agency, and arguably the nation's preeminent accident investigative body, thoroughly investigated the March 18, 2018 collision involving Uber's automated vehicle and Elaine Herzberg, a jaywalking pedestrian attempting to cross the road mid-block.[6] The NTSB issued its final report on November 19, 2019, concluding that there was plenty of blame to go around and everyone involved in the incident was culpable in some way. (The NTSB

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[5] https://onezero.medium.com/who-killed-elaine-herzberg-ea01fb14fc5

[6] The Tempe Police Department also conducted its own, separate accident scene reconstruction, that was flawed in numerous aspects, as will be discussed below.

Final Report is attached as Exhibit B. The exhibits to The NTSB Final Report were not

attached but can be provided to the Court upon request).   And, while the NTSB determined

that the "probable cause" of the accident was Ms. Vasquez's inattention to the roadway, it

made clear that that finding was not a legal conclusion. Importantly, the NTSB also

concluded that any inattention was a direct consequence of Uber's negligence.[7]   The State

was aware of the report and the findings of the NTSB.

But for Uber's many and varied failures, the collision and Ms. Herzberg's death

would likely have never happened. In fact, Ms. Vasquez's conduct barely cracked NTSB's

top ten concerns, ranking below Ms. Hertzberg's negligence and a series of bad decisions by

Uber.

The NTSB made the following findings in this order:[8]

> 1. None of the following were factors in the crash: (a) driver
> licensing, experience, or knowledge of the automated driving
> system operation; (b) vehicle operator substance impairment or
> fatigue; or (c) mechanical condition of the vehicle.
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> 2. The emergency response to the crash was timely and adequate.
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> 3. The pedestrian's unsafe behavior in crossing the street in front
> of the approaching vehicle at night and at a location without a
> crosswalk violated Arizona statutes and was possibly due to
> diminished perception and judgment resulting from drug use.

[7] The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, "accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties … and are not conducted for the purpose of determining the rights or liabilities of any person" (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB's statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). The point is that it's is a false equivalency to compare NTSB's finding of probable cause with the legal standard necessary to obtain and indictment.

[8] NTSB Final Report, pgs. 57-58.

4. The Uber Advanced Technologies Group did not adequately manage the anticipated safety risk of its automated driving system's functional limitations, including the system's inability in this crash to correctly classify and predict the path of the pedestrian crossing the road midblock.

5. The aspect of the automated driving system's design that precluded braking in emergency situations only when a crash was unavoidable increased the safety risks associated with testing automated driving systems on public roads.

6. Because the Uber Advanced Technologies Group's automated driving system was developmental, with associated limitations and expectations of failure, the extent to which those limitations pose a safety risk depends on safety redundancies and mitigation strategies designed to reduce the safety risk associated with testing automated driving systems on public roads.

7. The Uber Advanced Technologies Group's deactivation of the Volvo forward collision warning and automatic emergency braking systems without replacing their full capabilities removed a layer of safety redundancy and increased the risks associated with testing automated driving systems on public roads.

8. Post-crash changes by the Uber Advanced Technologies Group, such as making Volvo's forward collision warning and automatic emergency braking available during operation of the automated driving system (ADS), added a layer of safety redundancy that reduces the safety risks associated with testing ADSs on public roads.

9. Had the vehicle operator been attentive, she would likely have had sufficient time to detect and react to the crossing pedestrian to avoid the crash or mitigate the impact.

10. The vehicle operator's prolonged visual distraction, a typical effect of automation complacency, led to her failure to detect the pedestrian in time to avoid the collision.

11. The Uber Advanced Technologies Group did not adequately recognize the risk of automation complacency and develop effective countermeasures to control the risk of vehicle operator disengagement, which contributed to the crash.

12. Although the installation of a human-machine interface in the Uber Advanced Technologies Group test vehicles reduced the complexity of the automation-monitoring task, the decision to remove the second vehicle operator increased the task demands on the sole operator and also reduced the safety redundancies that would have minimized the risks associated with testing automated driving systems on public roads.

13. Although the Uber Advanced Technologies Group had the means to retroactively monitor the behavior of vehicle operators and their adherence to operational procedures, it rarely did so; and the detrimental effect of the company's ineffective oversight was exacerbated by its decision to remove the second vehicle operator during testing of the automated driving system.

14. The Uber Advanced Technologies Group's post-crash inclusion of a second vehicle operator during testing of the automated driving system, along with real-time monitoring of operator attentiveness, begins to address the oversight deficiencies that contributed to the crash.

15. The Uber Advanced Technologies Group's inadequate safety culture created conditions—including inadequate oversight of vehicle operators—that contributed to the circumstances of the crash and specifically to the vehicle operator's extended distraction during the crash trip.

16. The Uber Advanced Technologies Group's plan for implementing a safety management system, as well as post-crash changes in the company's oversight of vehicle operators, begins to address the deficiencies in safety risk management that contributed to the crash.

17. Mandatory submission of safety self-assessment reports - which are currently voluntary - and their evaluation by the National Highway Traffic Safety Administration would provide a uniform, minimal level of assessment that could aid states with legislation pertaining to the testing of automated vehicles.

18. Arizona's lack of a safety-focused application-approval process for automated driving system (ADS) testing at the time of the crash, and its inaction in developing such a process since the crash, demonstrate the state's shortcomings in improving the safety of ADS testing and safeguarding the public.

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2   19. Considering the lack of federal safety standards and
     assessment protocols for automated driving systems, as well as
3   the National Highway Traffic Safety Administration's inadequate
     safety self-assessment process, states that have no, or only
4   minimal, requirements related to automated vehicle testing can
     improve the safety of such testing by implementing a thorough
5   application and review process before granting testing permits.

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8   The Tempe Police Department ("TPD"), relying largely on the same evidence that the

9   NTSB relied upon, reached a very different conclusion regarding who or what was

10 responsible for Ms. Herzberg's death. But TPD, unlike the NTSB, was not exactly neutral.

11 The City of Tempe, the state of Arizona and Uber all shared a common goal of avoiding

12 legal liability for Ms. Herzberg's death.

13   Beginning on the night of the accident, Uber worked hand-in-glove with TPD to

14 "investigate" the accident.   TPD delegated much of the investigation to Uber and the

15 company's influence colored TPD's conclusions. The agency's determination that Ms.

16 Vasquez was to blame for the accident was a natural consequence of TPD allowing Uber's

17 upper-management to play a significant role in the investigation. It was folly to rely on

18 unverified claims made by a company with deep pockets and an interest in minimizing its

19 liability, even after being warned by an Uber whistleblower that the company was not

20 trustworthy.

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22   Ten days after the accident, Uber settled with Ms. Herzberg's family. One might

23 wonder why a company with such deep pockets would settle so quickly, particularly given

24 Ms. Herzberg's own apparent contribution to the collision. It's difficult to escape the

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conclusion that Uber hoped to avoid the legal discovery process associated with a civil lawsuit that was guaranteed to unearth even more damning information. By assisting the police in the investigation, the company could steer the investigation, enabling it to offload its liability to Ms. Vasquez. By paying Ms. Herzberg's family a large enough sum, Uber ensured that proof of its own culpability would remain hidden.

In August of 2020, almost two and a half years after the fatal accident, and close to a year after the NTSB issued its final report, the Maricopa County Attorney's Office ("MCAO") convinced a grand jury that Ms. Vasquez's conduct was a gross deviation from the standard of care a reasonable person would have exercised in the same situation, and as a result, she was guilty of negligent homicide. It did so by failing to present clearly exculpatory evidence, by presenting false and misleading testimony and by improperly comparing Ms. Vasquez's conduct to that of the driver of a non-automated car.

In order to determine whether Ms. Vasquez's conduct was actually a gross deviation from the standard of care a reasonable person would have exercised in the same situation, MCAO should have compared Ms. Vasquez's actions while operating a fully automated vehicle to the conduct of another person tasked with monitoring a fully automated vehicle. Instead, MCAO allowed the grand jury to compare Ms. Vasquez's conduct to that of a person driving a non-automated vehicle. Those two standards and legally and factually distinct.   MCAO allowed its witness, Detective Kasey Marsland ("Marsland"), to testify falsely before the Grand Jury, and it made no effort to correct the officer's patently false claims, and misleading testimony.

MCAO specifically withheld from the Grand Jury: (1) clearly exculpatory evidence, including evidence that Ms. Vasquez was not watching *The Voice* on a Hulu streaming application during her route that night as TPD had claimed. This specific evidence directly contradicts MCAO's theory that Ms. Vasquez was criminally culpable because she was unjustifiably distracted at the time of the collision; (2) statements made to the case agent Det. Hauboldt ("Hauboldt") by an Uber-employed whistleblower who warned him the company could not be trusted to be forthcoming; and (3) critical findings made by the NTSB that we inconsistent with TPD's conclusions.[9]

The Grand Jurors asked numerous, highly relevant questions touching on many of these topics. Each time, the State was given a chance to present known evidence that would have addressed the issues raised, the State failed to honor its obligations to Ms. Vasquez. In so doing, it slanted the presentation and rendered a finding of probable cause meaningless. Even with this skewed presentation the State obtained an indictment only by the slimmest of margins. MCAO failed to fairly present evidence in the following ways:

- Withheld clearly exculpatory evidence that Ms. Vasquez was NOT watching *The Voice* on a Hulu application on her phone during her route and at the time of the collision. This evidence directly contradicts its theory of culpability;

- Failed to advise the grand jury that an Uber Whistleblower spoke with the police and warned them that Uber's safety practices and technology were faulty and the company should not be trusted to be forthcoming;

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[9] https://www.azcentral.com/story/money/business/tech/2019/11/19/driver-fatal-arizona-uber-crash-mostly-blame-ntsb-report-finds/4232936002/ Jennifer Liewer, communications director for MCAO stated the office was considering all findings, including those in the NTSB report.

- Failed to advise the grand jury that Uber never programmed its vehicles to account for jaywalking pedestrians;

- Failed to advise the grand jury that Volvo concluded the collision would not have occurred had its City Safety forward collision system not been deactivated;

- Failed to advise the grand jury that Ms. Vasquez was unaware the City Safety forward collision system had been deactivated;

- Failed to advise the grand jury that Uber had recently removed the second vehicle operator from its cars and how that removal created a greater safety risk to the public;

- Provided false and/or misleading testimony regarding the Tempe Police Department's accident scene reconstruction including understating the speed Ms. Herzberg was travelling as she crossed into the path of the SUV, overstating the distance at which Ms. Vasquez would have first seen Ms. Herzberg, and falsely testifying that it used a "conservative" reaction time to account for Ms. Vasquez' ability to stop in time to avoid the collision.

- Failed to properly instruct the grand jury on the law of causation and failed to apply the appropriate reasonable person standard;

- Concealed from the grand jury critical findings contained in the final NTSB report by knowingly overstating the distance at which Ms. Vasquez would have first seen Ms. Herzberg, skewing the lighting situation as the collision scene, falsely testifying to the grand jury that the collision occurred in a "high traffic" pedestrian area, and understanding the number of warning signs advising pedestrians not to cross the street where Ms. Herzberg crossed;

- Failing to properly instruct the grand jury on laws relevant to pedestrian legal obligations;

- Downplayed/ignored the effects Ms. Herzberg's methamphetamine abuse had on causation:

- Failed to advise the Grand Jury that Ms. Vasquez's alleged inattentiveness was a predictable consequence of automation fatigue. A problem well known in the industry and well documented in numerous studies.

A.   **The Collision**

Shortly before 10:00 p.m. on the evening of March 18, 2018, Rafaela Vasquez, the sole occupant of an automated test vehicle, was monitoring the functions of a modified Volvo XC90, when the car struck and killed Elaine Herzberg. To be clear, Ms. Vasquez was not driving the Volvo. The SUV was fully automated. Ms. Vasquez's responsibilities were to monitor the vehicle, watch for mapping errors and input data into an I-Pad-like device called a Human-Machine Interface ("HMI") located in the center console. It was a monotonous and tedious task. Ms. Vasquez had already completed this loop 73 times on other occasions- each time without incident and without ever encountering a jaywalker.

Moments prior to the collision, Ms. Herzberg, dressed in dark clothing, was standing in a darkened portion of the median separating northbound and southbound traffic on North Mill Avenue. On both sides of that median were signs warning pedestrians against crossing outside of the crosswalk, which was 380 feet to the north. Rather than heed those warnings, Ms. Hertzberg, who's perceptions were likely significantly impaired by methamphetamine abuse, stepped off the median, and began pushing her bicycle across a darkened portion of the street.[10] She was not in a crosswalk and her bike was not properly equipped with

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[10] NTSB Final Report, Pg. 36.

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reflectors, or a forward-facing headlamp, as required by law.[11] She did not yield the right-of-way to oncoming traffic or use the sidewalk as required by law.[12] A video of the incident taken by the SUV's forward-facing camera reveals that Ms. Herzberg, who was in a much better position to see the Volvo than Ms. Vasquez was to see her, was either unaware of, or unconcerned with, oncoming traffic and made no effort to avoid the collision. Ms. Herzberg didn't seem to notice the approaching vehicle until the instant prior to the collision.

In an effort to analyze how an attentive <u>driver</u> would have responded to the situation, NTSB investigators, utilizing data independently obtained by the TPD and information obtained through Uber, as well as various studies, concluded that the average attentive <u>driver</u> would have had 2 to 4 seconds to detect someone in the roadway and begin to react. According to TPD, it would have taken a driver 2.1 seconds to stop the Volvo after recognizing that a person was in the roadway.

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[11] A.R.S. §28-817(a) A bicycle that is used at nighttime shall have a lamp on the front that emits a white light visible from a distance of at least five hundred feet to the front and a red reflector on the rear of a type that is approved by the department and that is visible from all distances from fifty feet to three hundred feet to the rear when the reflector is directly in front of lawful upper beams of headlamps on a motor vehicle. A bicycle may have a lamp that emits a red light visible from a distance of five hundred feet to the rear in addition to the red reflector.

[12] A.R.S. §28-793

      A. A pedestrian crossing a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk at an intersection shall yield the right-of-way to all vehicles on the roadway.

      B. A pedestrian crossing a roadway at a point where a pedestrian tunnel or overhead pedestrian crossing has been provided shall yield the right-of-way to all vehicles on the roadway.

      C. Between adjacent intersections at which traffic control signals are in operation, pedestrians shall not cross at any place except in a marked crosswalk.

      A.R.S. §28-796 addresses pedestrians on a roadway:

      A. If sidewalks are provided, a pedestrian shall not walk along and on an adjacent roadway.

      B. If sidewalks are not provided, a pedestrian walking along and on a highway shall walk when practicable only on the left side of the roadway or its shoulder facing traffic that may approach from the opposite direction.

      C. A person shall not stand in a roadway for the purpose of soliciting a ride from the driver of a vehicle.

The NTSB theorized that had Ms. Vasquez been more attentive, the accident might have been avoided, not that it would have been avoided. Relying upon existing research, the NTSB investigators concluded that Ms. Herzberg should have been visible to Ms. Vasquez 3.9 seconds before the collision. TPD determined, based on the initial vehicle speed of 44 mph and the maximum braking, the SUV would have taken 2.1 seconds to come to a complete stop, that left Ms. Vasquez with only 1.8 seconds to see Ms. Herzberg, process the information and react accordingly. The NTSB concluded that had Ms. Vasquez noticed Ms. Herzberg 3.9 seconds before impact, "she likely would have had sufficient time to detect and react to the crossing pedestrian to avoid the crash or mitigate the impact."[13] This allows for the possibility that even if Ms. Vasquez had seen Ms. Hertzberg sooner, the accident might still have happened. MCAO did not present that information to the grand jury, instead it allowed Marsland to testify exclusively about TPD's findings and conclusions, omitting the exculpatory findings of the NTSB, as will be discussed in greater detail below.

NTSB investigators learned that Uber eliminated Volvo's safety system and replaced it with their own inferior programming. Uber's ADS system failed to identify Ms. Herzberg until 1.2 seconds before impact and once it finally did make that identification, it failed to alert Ms. Vasquez to her presence in the roadway. In contrast, the safety systems the Volvo was originally equipped with called City Safety program and Forward Collision Warning ("FCW") but which Uber disabled, would have detected Ms. Herzberg on the roadway and

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[13] NTSB Report Pg. 43. *Emphasis added*.

alerted Ms. Vasquez to her presence.[14]   If the Volvo systems detected an impending

collision, and Ms. Vasquez failed to brake, those system would have automatically braked

for her. The pedestrian/bicyclist-detection component of the City Safety program could avoid

or mitigate collisions with pedestrians or bicyclists when the vehicle was traveling up to 43

mph. Unbeknownst to Ms. Vasquez, Uber had recently deactivated Volvo's City Safety and

FCW systems. Instead, the system Uber relied on was inferior, in that it was unable to

identify jaywalkers and would not brake at all if by its own internal calculations, full braking

would not prevent a collision – regardless at whatever reduced speed that collision would

occur at. In other words, Uber's system would make no effort to mitigate the impending

impact.

The ADS system that Uber designed, and which controlled the Volvo at the time of

the crash, was flawed by design. Uber knew this but Ms. Vasquez did not. The ADS was

comprised of multiple systems working in concert. Each system had hardware components

and software analysis and data-recording elements and included (1) a lidar (light detection

and ranging) system, (2) a radar system, (3) a camera system, and (4) telemetry, positioning,

monitoring, and telecommunication systems. Those systems should have detected Ms.

Herzberg, but didn't because Uber failed to program the systems to recognize jaywalkers.

Uber knew that. Ms. Vasquez did not.

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[14] City Safety helps to protect people inside and outside the car by spotting potential danger and helping you avoid it. Volvo Cars was the first to introduce this type of safety system as standard in every new Volvo car. City Safety uses radar and camera technology to identify other vehicles, cyclists, pedestrians and large animals, such a moose, elk or horses, day or night. It warns you if it detects an imminent collision and, if you don't react in time, it can automatically apply the brakes to help avoid or mitigate a collision. https://www.volvocars.com

Objects detected by the lidar, radar and cameras are subsequently identified and categorized by the ADS as either a vehicle, a pedestrian, a cyclist or other, the objects path of travel and velocity were also calculated by ADS. If the predicted path of the object resulted in an intersection or collision, the ADS was supposed to modify the vehicle's actions or initiate action to prevent a collision. That did not happen here.

In the final seconds preceding the collision, Uber's ADS first detected something in the roadway 5.6 seconds before impact. However, it never classified the object as a pedestrian, or correctly predicted Ms. Herzberg's path because she was crossing at a location without a crosswalk, and the system design did not include consideration for jaywalking pedestrians. Ms. Vasquez did not know that. Uber did.

The ADS changed Ms. Herzberg's classification multiple times, never identifying her as a pedestrian. It failed to predict her course of travel until 1.2 seconds before impact, when it determined that a bicycle was in the path of the Volvo and that a collision was imminent. It's possible, but not likely, that slamming on the brakes would have prevented the accident or mitigated the damage, but slamming on the brakes wasn't possible. Trading comfort for safety, Uber intentionally disabled Volvo's safety systems that allowed for emergency braking, and replaced it with a less safe alternative that would provide the passenger with a smoother ride. When the replacement system detected an emergency situation, rather than stopping immediately and risking a "false alarm," it initiated an "action suppression" a one second pause during which the ADS prevented braking so that the system could verify whether in fact an emergency existed and then initiated a plan. If after the "action suppression" the system concluded the collision could be avoided by hard braking, the

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system braked. If, on the other hand, the system concluded a collision was unavoidable, it initiated a gradual slowdown. Significantly, it did not alert the operator, (who might be involved in another task that their job as operator required), that an "action suppression" had been initiated because Uber did not expect the operator to intervene unless a collision was truly imminent.[15] The operator did not receive an auditory alert until two-tenths of a second before impact, leaving Ms. Vasquez helpless to protect themselves or others. Uber programmed the SUV to behave that way. Ms. Vasquez did not know that, but Uber did.

People intimately involved in the development of the technology understood that Uber consciously ignored known risks. MCAO did not present any of that evidence to the grand jury.

> *The misidentification of Herzberg was partly the result of a conscious choice about how safe the technology needed to be in order to be safe enough. One engineer at Uber later told a journalist that the company had "refused to take responsibility. They blamed it on the homeless lady [Herzberg], the Latina with a criminal record driving the car [Vasquez], even though we all knew Perception [Uber's software] was broken."*
>
> *The companies that had built the hardware also blamed Uber. The president of Velodyne, manufacturers of the car's main sensors, told Bloomberg, "Certainly, our lidar is capable of clearly imaging Elaine and her bicycle in this situation. However, our lidar doesn't make the decision to put on the brakes or get out of her way." Volvo made clear that they were not part of the testing. They provided the body of the car, not its brain. An automatic braking system that was built into the Volvo — using well-established technology — would almost certainly have saved Herzberg's life, but this had been switched off by Uber engineers, who were testing their own technology and didn't want interference from another system.[16]*

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[15] NTSB Final Report, Page 14, fn 34.

[16] https://onezero.medium.com/who-killed-elaine-herzberg-ea01fb14fc5e

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1   All of this information was known, or should have been known, to MCAO and

2 Marsland at the time the case was presented to the grand jury. It was in the NTSB final

3 report that MCAO claimed it was evaluating prior to making a charging decision.

4   After the collision, Ms. Vasquez promptly called 911 and also reported the incident to

5 her supervisors at Uber. Uber representatives, including the company's law enforcement

6 liaison, arrived on scene, as did members of TPD, as well as a representative for the City of

7 Tempe. TPD considered Uber's assistance essential to the investigation, as the company's

8 technology was both proprietary and novel, so members of law enforcement agreed to work

9 with Uber, without considering whether the company itself was a reliable source of

10 information and potentially liable for the collision. Uber was deeply involved in framing the

11 inquiry for TPD and worked hand-in-glove with the company which afforded Uber the

12 means and opportunity to shift culpability to Ms. Vasquez. The Whistleblower's statements

13 to Detective Hauboldt, which are discussed in detail below, put MCAO and TPD on notice

14 that there were serious issued to be considered and evaluated.

15   Ms. Vasquez cooperated with both Uber and the police. After the initial investigation

16 was concluded, and after having had an opportunity to review the video footage of the

17 incident, Tempe Police Chief Sylvia Moir told the San Francisco Chronicle that after

18 studying videos inside and outside the self-driving car, it would have been difficult to avoid a

19 collision with either a robotic or human driver:

> *It's very clear it would have been difficult to avoid this collision in any kind of mode (autonomous or human-driven) based on how she came from the shadows right into the roadway.* [17]

This was similar to the conclusion reached by the NTSB. Nevertheless, on March 28, 2018, only ten days after the collision, Uber settled with Ms. Herzberg's family - likely to avoid additional scrutiny, litigation and discovery. Uber was reckless. The NTSB said as much, as did The Whistleblower, yet the State and Marsland withheld that information from the grand jury.

B. **Marsland Got The Cell Phones Wrong. Ms. Vasquez Was Not Watching *The Voice***

The State's theory is that Ms. Vasquez was distracted by watching *The Voice* on her cell phone while she was driving and immediately prior to the collision. However, Marsland got it wrong. As will be discussed in detail below, had TPD conducted a thorough investigation, it would have been obvious to him them that the phone Marsland claimed Ms. Vasquez was watching when she kept glancing downward towards her right knee was not the phone that was streaming *The Voice*. All the evidence necessary to inform him that his theory was flawed was available to him prior to testifying before the grand jury. Somehow, he either ignored the information, never properly analyzed it or deliberately chose not to present it.

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[17] https://www.washingtonpost.com/news/tripping/wp/2018/03/22/fatal-crash-with-self-driving-car-was-a-first-like-bridget-driscolls-was-121-years-ago-with-one-of-the-first-cars/#:~:text=The%20driver%20said%20it%20was%20a%20like%20a%20flash%2C%20the%20person%20walked%20out%20in%20front%20of%20them%2C%E2%80%9D%20Tempe%20Police%20Chief%20Sylvia%20Moir%20was%20quoted%20by%20the%20San%20Francisco%20Chronicle%20as%20saying.%20The%20Uber%20vehicle%2C%20which%20had%20a%20human%20chaperon%20inside%2C%20was%20traveling%20about%2038%20mph%20in%20a%2035%20mph%20and%20made%20no%20attempt%20to%20brake.

C. <mark>**The NTSB Final Report Contained Information And Conclusions That Contradicted Marsland's Testimony But The Grand Jury Was Never Provided That Information**</mark>

On November 19, 2019, the NTSB formally adopted its findings and issued it final accident report. The grand jury knew nothing about those findings because MCAO and Marsland failed to inform them that the report existed, what its finding were and how the nation's preeminent accident investigation team, reached different conclusions than Marsland. For example, the NTSB Final Report stated:

> *At the time of the crash, ATG did not have a corporate safety plan—a standardized operations procedure that outlines the roles and assigns safety-related responsibilities to departments and personnel to effectively assess risk. ATG did not have a safety division or a dedicated safety manager responsible for risk assessment and mitigation. Although lacking experience in safety management, the ATG head of operations was tasked with the additional responsibility of being the safety manager. Without a safety framework—a safety plan and specialized departments and personnel—an organization cannot implement a safety program that (1) embodies the fundamental principles of safety culture and (2) contains comprehensive guidance for the development of safety countermeasures. The consequences of a lack of such a safety framework are seen in the events that led to the Tempe crash.*
>
> *A good safety culture is supported by policies and rules that ensure oversight of and adherence to the policies, and by personnel with experience in safety management and risk mitigation. At the time of the crash, many of these elements were inadequate or missing at ATG— specifically, oversight and risk assessment mechanisms and personnel with backgrounds in safety management. The consequences were exhibited in the inadequate oversight of vehicle operators and the failure to implement company policies, such as drug testing.*[18]

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[18] NTSB Final Report, Pg. 46.

The media was certainly following the story and developing additional information.

> *In the weeks before the crash, Uber made the fateful decision to reduce the number of safety drivers in each vehicle from two to one. That decision removed important redundancy that could have helped prevent Herzberg's death*.[19]

While TPD elected to blame Ms. Vasquez for the collision, the NTSB determined that Uber's failures to take reasonable measures to appreciate and prevent the risk of automation complacency, were largely to blame for the accident. [20]

The NTSB made the following findings:

A. Uber's technology was unable to correctly classify and predict Ms. Hertzberg's path of travel. Uber was aware that its software suffered from this flaw, yet the company failed to take steps to adequately manage the risk.

B. Uber's automated driving technology precluded braking in an emergency situation whenever a collision was determined by the system to be **unavoidable** based on the speed of the vehicle and distance to the object in its path, the system prevented itself from applying the brakes regardless and mitigating the collision by slowing the car down as much as possible. (*Emphasis added.*)

C. Uber's deactivation of the Volvo forward collision warning and automatic braking system enhanced the risks associated with testing automated vehicles on public roads.

D. Ms. Hertzberg behavior was unsafe. Crossing the street in front of an approaching car at night and without a crosswalk violated the law.

E. Had Ms. Vasquez been (more) attentive, it is likely that she would have had sufficient time to detect and react to Ms. Hertzberg, thereby avoiding the crash or mitigating the impact.

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[19] https://www.theverge.com/2019/11/20/20973971/uber-self-driving-car-crash-investigation-human-error-results

[20] NTSB Final Report, pg. vi

F. Ms. Hertzberg's failure to notice the oncoming car or to take evasive action to avoid the accident was likely the result of impairment for methamphetamine.

G. Ms. Vasquez's prolonged visual distraction was a **typical** effect of automation complacency. Uber should have predicted that people tasked with monitoring automated vehicles on a loop would experience automation fatigue. Uber failed to recognize the risk of automation complacency and failed to develop countermeasures to ameliorate that risk. (*Emphasis added*).

H. Uber's decision to remove the co-pilot from the vehicle, increased the demands on the sole occupant and removed a second set of eyes from the road, thereby increasing the risks associated with testing automated vehicles on public roads.

I. Uber had the means to monitor the behavior of vehicle operators but rarely did so. The company's failure to exercise proper oversight was exacerbated by the removal of the co-pilot.

J. Uber's inadequate safety culture created conditions that contributed to the circumstances of the crash and to Ms. Vasquez's distraction.

K. But for Uber's decision to deactivate Volvo's safety systems, the accident would have either been avoided or been much less serious. After the accident, Volvo ran simulations to see how the vehicle would have responded had Uber not elected to remove the company's advanced driver assistance system. In 17 out of 20 scenarios, Volvo's advanced driver's assistance system would have prevented the collision. In the remaining 3 scenarios, Volvo's automated emergency braking would have reduced the speed at the time of impact to 10 miles per hour, thereby reducing the likelihood of death or serious injury.

The grand jury was not provided with any of this exculpatory information in spite of the fact that the State was aware of the findings.

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D. <mark>**The Grand Jury Was Never Told That Uber Removed The Co-Pilot From All Its Test Vehicles A Few Months Prior To The Accident And The Impact That Action Had On Overall Safety**</mark>

At no time during its presentation did the State advise the grand jury that up until a few months before the crash, the operator worked with a co-pilot who sat in the front passenger seat. The co-pilot's job was to input data and to serve as a second set of eyes. The mere presence of the co-pilot also mitigated the effects of automation complacency. Uber's decision to remove the co-pilot was motivated by greed and ignored safety concerns.

For Uber, the race to put its automated vehicles on the road before its competitors was the company's singular focus. The ability to be first came down to the number of miles Uber's automated vehicles logged on the streets of Tempe. In an effort to become the first company to have fully automated cars on the road, Uber decided to split up the two-person teams. That decision was further proof that the company had no regard for safety. By splitting up the teams, Uber created a situation where the sole occupant not only had to monitor the computer, but that person also needed to address errors by inputting data into the HMI while the SUV was in motion, which of course required Ms. Vasquez to take her eyes off the road. Ms. Vasquez was also required to monitor communications with headquarters back at the parking garage in real time on a cell phone application.

The NTSB determined that the decision to remove the co-pilot increased the demands on the sole occupant and made the operation of the vehicle less safe.

> *About 5 months before the crash, ATG began testing with only one operator in a vehicle. The responsibilities of two vehicle operators—one monitoring the driving environment and the other noting information about the system and the driving environment—were consolidated after ATG equipped its test vehicles with an HMI that made it easier for operators to interact with the ADS. However, by removing the second operator, ATG*

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also removed a layer of safety redundancy. The second operator can be viewed as a mechanism for detecting a potentially hazardous situation and acting to prevent a crash, as well as a reminder of the vehicle operator's responsibilities. The consolidation of responsibilities also increased the task demands on the now-sole operator. Even though the HMI had simplified the notation task, a single vehicle operator was required to do more than before. Specifically, an operator now had to look away from the road to manipulate the HMI, even if infrequently.[21]

When Uber was pressed to justify its decision to remove the co-pilot, the company refused to acknowledge that the pair system was safer:

> *… Uber moved from two employees in every car to one. The paired employees had been splitting duties — one ready to take over if the autonomous system failed, and another to keep an eye on what the computers were detecting. The second person was responsible for keeping track of system performance as well as labeling data on a laptop computer. Mr. Kallman, the Uber spokesman, said the second person was in the car for purely data related tasks, not safety.[22]*

E.   The Whistleblower Provided The TPD With An Extremely Critical Account Of Uber's Indifference To Safety And Flawed Vehicle Technology

One of the items disclosed to Ms. Vasquez by MCAO was a whistleblower call. Shortly after the accident, an Uber employee who worked as a Technical Program Manager, contacted TPD Detective Hauboldt, the case agent responsible for the investigation, to discuss his concerns about the incident and Uber's conduct. The Whistleblower advised the detective that

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[21] NTSB Final Report, pg. 45.

[22] https://www.nytimes.com/2018/03/23/technology/uber-self-driving-cars-arizona.html?action=click&module=RelatedCoverage&pgtype=Article&region=Footer

he had already shared his concerns with the NTSB. While he was reluctant to come forward publicly, he did provide the detective with his name and phone number.

During a 48-minute recorded, but undated telephone call, The Whistleblower told Hauboldt that while he was reluctant to come forward publicly, he felt compelled to do so after hearing how this case was being handled in the press. It was clear to The Whistleblower that the public did not understand that it was Uber's non-existent safety culture that caused the accident. He cautioned the detective not to trust Uber and proceeded to provide him with a damning account of Uber's utter disregard for the safety of the public or its employees and Uber's culpability in the instant case. The Whistleblower also claimed to have access to documents that would corroborate his claims, documents that the detective never requested or sought to obtain, despite the fact that he knew them to be exculpatory.

According to The Whistleblower, focusing on Ms. Vasquez and her conduct ignored the larger problem. Greed drove Uber to ignore known risks. Doing the right thing interfered with the company's desire to get as many automated cars on the road as quickly as possible. It is evident from the substance of the conversation that The Whistleblower was a high-level employee with a thorough understanding of Uber's technology. It is also evident from that conversation that the detective understood that the information shared with him was exculpatory. The Whistleblower provided Hauboldt with the name of an expert in the area of automation complacency. Hauboldt never contacted the expert.

It appears that NTSB investigators incorporated in its final report information obtained through The Whistleblower. TPD, however, did not. Nor did Marsland even mention the call to the grand jury. The grand jury heard none of the exculpatory evidence

1   provided to TPD by The Whistleblower, despite being aware of it. MCAO made no effort to

2   see that this information was presented to the grand jury. TPD's failure to consider the

3   information offered to them by The Whistleblower explains the disparate conclusions.

     F.   **Automation Complacency Was Well Known And Well Documented And**
           MCAO's And Marsland's Failure To Inform The Grand Jury Of Its
           Effects Deprived Ms. Vasquez Of Her Right To A Fair Presentation

          The requisite mental state for Negligent Homicide is criminal negligence. Criminal

     negligence requires a gross deviation from the standard of care that reasonable person would

     observe in the same situation. MCAO and Marsland omitted from its presentation a critical

     detail- the NTSB found that Ms. Vasquez's alleged inattention or distraction was a natural

     and typical consequence of monitoring an automated system and as such, cannot be viewed

     as a gross deviation from the standard of care.

> *When it comes to the human capacity to monitor an automation system for its failures, research findings are consistent—humans are very poor at this task. **The NTSB concludes that the vehicle operator's prolonged visual distraction, a typical effect of automation complacency, led to her failure to detect the pedestrian in time to avoid the collision. The NTSB further concludes that the Uber ATG did not adequately recognize the risk of automation complacency and develop effective countermeasures to control the risk of vehicle operator disengagement, which contributed to the crash.*** [23]

          MCAO and Marsland were aware of the NTSB's findings. The term "automation

     complacency" is mentioned 18 times in the NTSB's final report. The Whistleblower spoke

     with Det. Hauboldt about it at length and made clear that "Uber's design failed to recognize

     basic human nature and how attention/inattention works." The Whistleblower even provided

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[23] NTSB Report, Page 44 (emphasis added).

Det. Hauboldt with the name of an expert who specializes in the area, adding that there were a number of studies that show the higher the level of automation, the less engaged the human becomes. That is how human beings operate, yet neither the term "automation complacency" or the general concept appear anywhere in the transcript of the grand jury proceeding.

If inattention or distraction is a typical consequence of automation complacency then by definition that inattention or distraction does not constitute gross negligence. The grand jurors were entitled to be advised of that fact. By failing to advise them of that, both MCAO and Marsland failed to present clearly exculpatory evidence to the grand jury and denied Ms. Vasquez her rights to a fair presentation of the evidence.

II.   ARGUMENT

The defendant's due process rights are violated where the grand jury is presented with incomplete or misleading testimony.[24] "The defendant has no effective means of cross examination or rebutting the testimony given before the grand jury. Therefore, it is particularly incumbent upon the prosecutor, upon witnessing the use of misleading testimony, to correct the record before that body."[25]

"Grand jurors have the right to hear all relevant non-protected evidence that bears on the case. Thus, if the grand jurors have reasonable grounds to believe that other available evidence 'will explain away the contemplated charge they may require the evidence to be

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[24] *Crimmins v. Superior Court*, 137 Ariz. at 43; *Maretick v. Jarrett*. 204 Ariz. at 198.

[25] *Nelson v. Roylston*, 137 Ariz. 272, 277 (1983).

1   produced.'" [26]   It is axiomatic that if the grand jury is never made aware of certain evidence,

2   they would never know to ask for it.

3   The defendant has a substantial procedural right in the jury being properly instructed

4   on the law, and the court must determine whether that has taken place.[27]   The prosecutor has

5   a duty during grand jury presentations to act as the legal advisor to the grand jury.[28]   Further,

6   the State is obligated to present "clearly exculpatory" evidence to the grand jury.[29]   "Clearly

7   exculpatory evidence is evidence of such weight that it would deter the grand jury from

8   finding the existence of probable cause."[30]   Withholding evidence that directly supports a

9   valid defense to a charge would, by definition, be exculpatory.

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11   The official record of the grand jury proceedings is the reporter's transcript.   It is the

12 source document from which the defendant determines if his rights have been violated.

13 There is no parallel mechanism by which the defendant must guess if the record is complete,

14 and if he believes it is not, then question the prosecutor and grand jurors to discover what

15 was omitted.   In fact, this procedure has been specifically condemned. [31].   "Such rights

16 [substantial procedural rights] should not be made to depend on the memories of

17 disinterested persons or on their willingness to admit what may be their own errors." [32]

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19   Our Supreme Court has noted:

20 [26] *Maretick v. Jarrett*. 204 Ariz. at 197 (internal citations omitted).

21 [27] *State v. Fields*, 232 Ariz. 265, 268 (2013).

22 [28] *Id.*

23 [29] S*tate v. Coconino County Superior Court (Mauro)*, 139 Ariz. 422, 425 (1984).

    [30] *Id.*

24 [31] *Wilkey v. Superior Court*, 115 Ariz. at 528

25 [32] *Id.*

I fail to understand why any conscientious prosecutor would ever take a chance with potentially insufficient jury instructions. Given a prosecutor's special ethical responsibility as a 'minister of justice,'...it should be incumbent upon him or her to exercise the utmost care and caution in grand jury proceedings. A few extra minutes to repeat legal definitions should not create an unreasonable burden and would seem to be a better practice.[33]

Although a defendant may not attack the grand jury's finding of probable cause based on the sufficiency of the evidence, a defendant is denied a substantive due process right when *no* evidence is presented in support of a criminal charge and the grand jury finds probable cause anyway. To illustrate the point, if the State was presenting on a charge of Aggravated DUI, pursuant to A.R.S §28-1383(A)(1) (the "aggravator" being a suspended driver's license), but failed to present any evidence that the defendant had a suspended license, due process would permit a defendant to contest the probable cause finding on the grounds that no evidence was present as to an element of the offense.

A.   **The State's Entire Theory Of Culpability In This Case Is Based On The Demonstrably False Conclusion That Ms. Vasquez Was Distracted Because She Was Watching *The Voice* On Her Cell Phone While She Was Piloting The Car**

The State's theory is that Ms. Vasquez is guilty of Negligent Homicide because she was a distracted driver who, during critical moments of her trip, was watching *The Voice* on a cell phone placed in an area between the bottom of the dashboard and the center console near her right knee and not paying attention to the roadway. Had Marsland bothered to do a thorough review of the evidence, he would have concluded that that premise was false. His

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[33] *O'Meara v. Gottsfield*, 174 Ariz. 576, 579 (1993) (internal citations omitted).

failure not only made his entire presentation to the grand jury an exercise in concealing clearly exculpatory evidence, it also fundamentally tainted the NTSB report because that report relied on many of his findings regarding Ms. Vasquez' alleged distracted driving.

Ms. Vasquez was not watching *The Voice*, or any other program, on a cell phone during any part of the SUV's route that night. In fact, she was merely listening to the show on the vehicle's Bluetooth through her personal phone - an activity Uber had authorized its drivers to do. *(See* Exhibit C, Bates Uber_NTSB_0000530). This was easily verifiable had Marsland taken the time to properly review the evidence. Perhaps if he had spoken with someone other than Uber upper-management he would have discovered this basic fact.

TPD conducted Cellebrite cell phone extractions from the two cell phones seized from Ms. Vasquez pursuant to a search warrant. (*See* Exhibit D, Bates 000035) Ms. Vasquez had those phones with her in the vehicle on the night of the collision. The two phones were identified as:

- LG MS550 Stylo 2 Plus (602-332-7958) (**Black Case**) ("**Stylo 2**")

- LG MP450 Stylo 3 Plus (510-363-8080) (**Gold Case**) ("**Stylo 3**")

The cases for those two phones are distinctively different in that the **Stylo 2** phone – the one Ms. Vasquez used to communicate with headquarters while she was out on her route - had a black outer case. (*See* Exhibit E, Bates 000119). The **Stylo 3** phone, which was her personal-use phone, had a bright metallic gold outer case and was easily distinguishable from the **Stylo 2**. (*See* Exhibit E, Bates 000111). This distinction is critical when reviewing the rear facing cockpit camera video showing Ms. Vasquez inside the vehicle during her route.

Marsland relied on this video during his faulty and mistaken analysis of the evidence. He concluded that:

> *Given the findings from Hulu regarding the driver's personal phone streaming video during the time of the crash, as well as the video of the driver pulling her phone out of her purse at the beginning of the dashcam footage of her shift at around the time the Hulu streaming began, it is likely that the driver was focused on the streaming media on her phone instead of her duties related to the operation and oversight of the vehicle.*[34]

Marsland noted that when Ms. Vasquez first started her shift, she removed a cell phone with a <u>black</u> case. (*See* Exhibit G, Bates 000054). This is the **Stylo 2**. Although Marsland fails to note this in his report, the video shows that this is the phone Ms. Vasquez places down by her right knee. This is the location Marsland notes Ms. Vasquez was continually looking towards throughout the trip. The fatal flaw with Marsland's conclusion, however, is that the **Stylo 2** is NOT the phone that is streaming Hulu. (*See* Exhibit D, Bates 000140-000145). This Attachment confirms that the phone streaming Hulu is the "LGMP450." This is the **Stylo 3**, the phone with the gold case. The Cellebrite extraction found that the Hulu video application was located on the **Stylo 3** phone. (*See* Exhibit E, Bates 000108). In contrast, YouTube was the only installed media application that was found on the **Stylo 2**. (*See* Exhibit E, Bates 000108). The evidence confirms Ms. Vasquez was not looking at the phone streaming Hulu (the **Stylo 3**).

There was additional evidence in the video footage that should have given Marsland pause. After the crash, Marsland noted that he observed her making a phone call after the

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[34] See Exhibit F, Bates 000150

accident while she was still seated in the vehicle. (*See* Exhibit H, Bates 000053). What he failed to either observe, or did observe but failed to note, was that the phone she used was the **Stylo 3**. The shiny metallic cover is clearly visible in the video. The video also shows Ms. Vasquez retrieve that phone from a distinctively different location in the car. She turns to her right and takes the **Stylo 3** from what appears to be the front passenger seat. Further confirmation is that the Cellebrite extraction report shows that the calls she made after the accident were made on the **Stylo 3,** the phone she can be seen using after the collision. (*See* Exhibit I).

In addition, what Marsland would have also discovered had he fully investigated Uber operator responsibilities was that Ms. Vasquez was required to track, in real time, all "Slack" communications between headquarters and all the other operators on the road during her shift. Slack® was an application that was used by Uber to send and receive messages to and from its operators.[35] All Operators were required to continually monitor their "Uber" phones while out on their shift and respond promptly or be reprimanded. Continued violations could result in termination. The placement of the **Stylo 2** near her right knee down by the center console and Uber's requirement that she continually monitor the Slack communications explains why Ms. Vasquez averted her eyes from the road.

Because Ms. Vasquez was fulfilling her duties as an operator, she was operating the SUV in the manner required by Uber. In other words, by monitoring the Slack communications, Ms. Vasquez was doing her job. Given the representations Uber was

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[35] The Slack application was loaded on both the Stylo 2 and the Stylo 3. Counsel is informed and believes that the 2018 version of Cellebrite was unable to detect Slack communications on a cell phone.

making to its operators about the SUV's safety systems, Ms. Vasquez had every expectation

that looking at the phone to track Slack messages, as she was required to do, was safe. All

this could have been easily discovered had Marsland bothered to investigate it.

Marsland explained none of this to the grand jury. Instead, all they were told was the

Ms. Vasquez was a distracted driver because she was watching Hulu while she was operating

the vehicle and that her distraction caused Ms. Herzberg's death. The evidence discussed

above was clearly exculpatory and MCAO's and Marsland's failure to present it to the grand

jury denied Ms. Vasquez her due process rights.

B. **The State's Failure To Advise The Grand Jury Of The Content Of The Whistleblower's Allegations Fundamentally Skewed The Presentation Because It Deprived Them Of Access To Clearly Exculpatory Evidence**

The import of The Whistleblower's statements to Det. Hauboldt are undeniable. The

withholding of those statements from the grand jury is especially prejudicial to Ms. Vasquez

in that The Whistleblower put TPD on notice Uber upper-management could not be trusted,

yet Marsland admitted to the grand jury that he [Marsland] only met with upper-management

but never with the Uber engineers.[36] What follows is but a sample of the clearly exculpatory

evidence disclosed by The Whistleblower to TPD. This evidence was withheld from the

grand jury.

> A. To the public, to law enforcement and to the NTSB, Uber did its best to appear contrite and cooperative. The day after the accident, Uber's CEO, Dara Khosrowshani tweeted, "Some incredibly sad news out of Arizona. We're thinking of the victim's family as we work with local law enforcement to understand what happened." While Mr. Khosrowshani claimed that Uber would "do the right thing", behind the scenes he was

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[36] (RT 27:16 – 28:5).

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singing a different tune. The day after Ms. Herzberg was killed, The Whistleblower received an email from Khosrowshani, in which he stated, "we can afford to make mistakes, we can't afford to slow down." When the whistleblower confronted the CEO about the language and tone of the email and cautioned him against utilizing that philosophy to justify Uber's decisions, Khosrowshani made it clear that he believed that the ends justified the means, explaining that, "safety isn't something I aspire to. Safety means staying home."

B. The Whistleblower advised Det. Hauboldt that the company could not be trusted to be fully forthcoming with either the police or the NTSB if it was not in the company's interest to do so- which in this case, it wasn't Uber could not be trusted to make the right decisions. He had seen no evidence to suggest that the company had learned anything from the accident. (Ms. Vasquez had no reason to believe that she could not trust her employer. TPD did.)

C. The Whistleblower described Uber as, "very clever about liability as opposed to being smart about responsibility."

D. It was The Whistleblower's opinion, that while there may be some culpability for the operator, it was Uber's failures that created the danger to the operators, pedestrian's and the public at large. He was motivated to call the detective out of concern that Ms. Vasquez would be blamed disproportionally and that Uber would undeservedly evade liability. TPD elected to ignore the warning and relied heavily on Uber personnel in its investigation. The State withheld that information from the Grand Jury despite questions pertaining to Uber's conduct.

E. After the accident, The Whistleblower began to look for Uber's safety documents, but he was unable to find them. There were no internal records reflecting Uber's safety standards, because Uber was only concerned with the vehicles and not people. That claim was corroborated by the NTSB investigation.

F. In support of that claim, The Whistleblower described a video that was played for Uber management which featured software that was developed which caused the automated vehicles to "gun it" through yellow lights. At one point, Uber had instructed the software developers to ensure that the vehicles always traveled

five miles over the speed limit. (Ms. Vasquez had no idea that her employer was making decisions that would imperil her life.)

G. Ms. Vasquez may have been behind the wheel, but had Uber done a better job at training, overseeing the training, building the systems correctly and leaving the second operator in the vehicle, the accident likely would not have happened.

H. Uber was not ready to move to a single operator and it was reasonable for Uber to know it was not ready for a single driver. The transition was driven entirely by the company's desire to get more miles faster. (Ms. Vasquez did not know that but Uber did.)

I. Uber transitioned to a single operator without an approved safety assessment. The information the company had at the time it made that choice to transition to a single operator, indicated that what it was doing was not working. Ms. Vasquez was unaware that she and the other operators were guinea pigs. Uber knew exactly what it was doing, but withheld that information from TPD and the NTSB.

J. The decision to go to a single operator, failed to anticipate an easily recognizable failure mode- automation complacency- and did not take appropriate precautions to minimize the risk. Ms. Vasquez was unaware that automation fatigue was a typical consequence of operating an autonomous car. Uber did, but elected to do nothing to minimize a predictable consequence.

K. The second operator's presence in the vehicle served as an enormous safeguard. In addition to being a second set of eyes on the road, the second operator also monitored what the vehicle was seeing, and was tasked with logging information into the car's HMI and protected against automation complacency. When Uber removed the second operator, it created the need for the sole occupant to have eyes on the road, monitor what the vehicle was seeing and input data into the IPad. The decision to go to a sole occupant was never approved for safety. The enhanced demands on the sole operator were distracting. Ms. Vasquez was unaware that the situation Uber placed her in had never passed a safety audit. Uber did.

L. Uber's belief that the human would always catch the robots' mistakes was irresponsibly flawed. Particularly, since Uber was repeatedly reminded of operator fallibility. The company

routinely created new policies and procedures to address human error. Those policies and procedures were designed to protect the company's property and improve the customers' experience. "We had all these precautions to account for the fallibility of our operators except when they were on public roads with people who had nothing to do with us as a company and weren't customers. It's always been about the miles, but also about our customers. …The bicyclists are not our customers. The people driving their own cars that are not self-driving are not our customers. Our customers are the people in the car."

M. Removal of the second occupant meant that the operator would do her job plus the job of the second operator and recognize when the system failed in sufficient time to intervene and prevent a problem. The Whistleblower told the detective that that calculation was irresponsibly flawed.

N. Uber's safety manual stated that the person behind the wheel's sole responsibility was the safe operation of the vehicle, but Uber added to that person's responsibility. The decision to remove the second operator was flawed in that it relied on one person to do everything. Uber understood that no person could be 100% all of the time. The decision to remove the second driver was irresponsibly flawed. Uber was aware of those risks and consciously disregarded them.

O. The Whistleblower sent an email to his superiors two years before the accident, addressing ways to avoid driver inattentiveness, including technical and procedural mechanisms that could be utilized to address the problem, but Uber rejected those recommendations based on concerns about perception. Over the years, The Whistleblower repeatedly raised concerns about inattentiveness and automation complacency which the company ignored. (Ms. Vasquez was unaware of the risk. Uber had all of the information and disregarded it.)

P. Uber was aware that automation complacency was a real risk. Other operators had fallen asleep while monitoring a vehicle. Ms. Vasquez was unaware of other instances of automation complacency.

Q. Uber had insufficient systems to confirm one driver system was safe. The company elected to trade efficiency for safety.

R. Uber's claim that the operator was required to hover her hands above the steering wheel was inconsistent with internal documents. Bosch, the manufacturer of the steering system, concerned with the possibility that an operator might lose consciousness or be inattentive while behind the wheel, required Uber to create software that would issue an alert if the operator took her hands off the wheel. Uber built the software and then removed it - despite being aware of how unsafe that choice was.

S. Any evaluation Uber did with respect to single operator looked at the quality of the passenger experience and not safety.

T. Shift leaders were responsible for spot checking drivers but they were vastly outnumbered by operators.

U. The decision to move to a sole operator failed to recognize a basic fact of human nature and how attention works. The Whistleblower advised Det. Hauboldt that there were a number of studies published on the issue. He even provided him with the name of a professor who he had spoken with about human factors. The Whistleblower explained that Uber's system created complacency. Placing the operator in a fully automated car, alone at night, on the exact loop the car had travelled many times before was another failure. Det. Hauboldt acknowledged that the operator was essentially a passenger in the car with nothing to do.

What Det. Hauboldt did with the information provided to him by The Whistleblower is unclear. Despite his assurances to The Whistleblower regarding his duty to investigate the claims, to contact the prosecutor, and to write a report documenting the conversation and his subsequent efforts, it does not appear that Det. Hauboldt did any of those things. There is no evidence to suggest he investigated The Whistleblower's claims, nor did he prepare a report documenting the call. What is clear is that the grand jury was never provided with any of The Whistleblower's statements. Instead, everyone involved in the presentation of evidence to the grand jury remained silent. By doing so they all failed in their duty to present clearly exculpatory evidence. That failure violated Ms. Vasquez' due process rights.

C. **MCAO and Marsland Concealed From The Grand Jury Numerous Flaws Present In Uber's Automated Driving System And Failed To Explain The Impact Of Uber Disengaging Volvo's Forward Collision Warning Systems**

Uber made a conscious choice to deactivate Volvo's safety system. Instead, Marsland told the grand jury that Volvo's automated driving system ("ADS") could not co-exist with the Volvo safety system ("City Safety") and Forward Collision Warning ("FCW") and therefore, both were deactivated. (RT 8:7-13) That claim is not accurate.

Marsland's first mistake was that he relied on Uber's upper management, not its engineers, to explain the technology to him. This fact was not lost on one of the grand jurors.[37] Uber had a vested interest in burying this collision in order to keep the ATG program moving forward.[38] Because of TPD's failure to fully investigate and to blindly rely on the information being fed to it by Uber upper-management – and not its engineers, the investigation was fundamentally flawed and the presentation to the grand jury was fundamentally unfair.

1. **Marsland Either Failed To Explain, Or Simply Did Not Understand, The Fatal Flaw In Uber's ADS System Which Uber Never Programmed To Account For Jaywalking Pedestrians**

Marsland told the grand jury that Uber upper- management had explained to him that "there was no good way to recreate in a lab the conditions that a vehicle will find every day on the street."[39] He further testified that he was told that the best way to collect data and then write the software was to allow the vehicles to be presented with these situations that a

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[37] (RT 27:12 – 28:5)

[38] This is evidenced by the fact that Uber paid a sizeable settlement to Ms. Herzberg's family only ten days after the collision. This was unprecedented.

[39] (RT 29:16-19).

normal driver encounters on the roadway. [40] While in theory this made sense, in practice it was deadly. Marsland made no real effort to fully explain to the grand jury the technology being employed by Uber. The explanation that he did provide was cursory, at best.[41] His utter failure to inform this grand jury of the fundamental problems with Uber's technology was either intentional or negligent. His report, and other evidence produced through discovery, suggests he knew about this information. Either way, his failures so compromised the fact-finding process that it made the presentation to the grand jury fundamentally unfair.

Marsland should have explained the following to the grand jury. Objects in the roadway were detected primarily by the lidar (light detection and ranging), radar and camera systems. When an object was detected, it was tracked, its heading and velocity were calculated, and it was "classified" by the ADS. Detected objects could be classified as "vehicles," "pedestrians" or "bicyclists." A detected object could also be classified as "other," indicating it was "unidentified." Once the system classified a detected object it generated multiple possible trajectories (predictions on the path of travel or goal of the object). The programming had to make assumptions. For example, if the program identified an object as a "vehicle," it would generally assume that the object was travelling in the direction of travel in that lane of the roadway. However, if the program changed the classification of the object it had been tracking, it no longer considered the tracking history of the object it had been generating, but instead started anew in generating a new trajectory. In other words, it essentially abandoned the trajectory (path of travel) information it was

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[40] (RT 29:19-23).

[41] (RT 8:7-13 / 9:8 – 10:21 / 32:24 – 33:5).

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accumulating and started to attempt to determine a new trajectory path. This new trajectory path would again be based on assumptions the system was making depending on whether the object was now classified as a "vehicle," "pedestrian," "bicyclist," or other, and predict where it thought the object would go based on assumptions programmed into the software by the Uber engineers. [42]

However, when an object was classified as "other" it was never assigned a goal. What that meant was that as long an object remained classified as "other" the program would not predict the general direction of travel, nor make assumptions about its trajectory or goal. That's precisely what happened here.

> *As the ADS detected, classified and tracked objects, it modulated the vehicle dynamics – steering and throttle – to maintain smooth movement, without abrupt changes in motion. In certain situations, such as the sudden hard braking of a vehicle ahead or an initially obscured pedestrian darting in front of the test vehicle, gradual changes in vehicle trajectory might be insufficient to avoid a collision.* [43]

The system prioritized smoothness of the ride over caution. That programming turned out to be fatal in this case. When the program did detect an emergency situation, it initiated "action suppression" which was a one-second delay period where the vehicle attempted to determine what action, if any, it would take. During this process the program issued no alert to the driver. Uber programmed the SUV to do this because Uber was worried about false alarms and the vehicle engaging in unnecessarily extreme maneuvers. Again, Uber prioritized smoothness over caution. To further compound the danger, if the program

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[42] NTSB Final Report, pg. 13

[43] NTSB Final Report pg. 13.

determined that a collision was imminent, but maximum braking could not avoid it, <u>it didn't</u> <u>apply the brakes at all</u>.[44]

Ultimately, Uber's total reliance on the operator to avoid a collision was unrealistic, given the effects of automation complacency and Uber's lack of internal controls and faulty safety culture necessary to properly monitor those effects. MCAO and Marsland failed to explain the fatal flaw that significantly contributed to the collision in this case. Ubers' ADS design **did not include consideration for jaywalking pedestrians** – the precise dynamic present here.[45]

Had Marsland been forthcoming in his testimony, the grand jury would have known the following critical information:

1. <u>5.6 seconds from impact</u>: the lidar first detected the object (Ms. Herzberg), **classified it as "vehicle"** and determined that the object was not in the path of the car but estimated its speed;
2. <u>5.2 seconds from impact</u>: **reclassified it as "other,"** which meant it treated it as a new, previously unidentified object, determined that it was not in the path of the car, and predicted it as being static;
3. <u>4.2 second from impact</u>: **reclassified it as "vehicle"** which meant it treated it as a new, previously unidentified object, determined it was not in the path of the car, and predicted it as being static;
4. <u>3.9 seconds from impact</u>: **retained classification as "vehicle"** predicted its path as traveling in the left through lane (one lane left of the lane the car was traveling in);
5. <u>3-8 to 2.7 seconds from impact</u>: **alternates classification between "vehicle" and "other."** Each time it alternates

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[44] Volvo's City Safety and FCW programming, which Uber deactivated, did just the opposite. Its functioning is discussed in the section below.

[45] The fact that Marsland falsely asserted during his testimony that the location of the collision was a high traffic area for pedestrians only further tainted his presentation and prejudiced Ms. Vasquez. His misleading testimony about pedestrian activity around the collision scene is addressed in below.

classification, it does not retain the tracking history. During the periods when it's classified as "vehicle" it predicts the path of travel is in the left through lane. When it's classified as "other" is shows as static and not in the path of the car;

6. 2.6 seconds from impact: **reclassified as bicycle**. Again, the object is now without a tracking history. The predicted path of travel is static and not in the path of the car;

7. 2.5 seconds from impact: **retains classification as bicycle**. Predicts object is traveling in the left through lane and not in the path of the car.

8. 1.5 seconds from impact: **reclassified as "other."** It again lacks a tracking history and is not assigned a goal. Determined to be partially in the path of the car. ADS generated a plan to maneuver to the right to avoid the object.

9. 1.2 second from impact: **reclassified as "bicycle."** Although there is again no tracking history, the object is assigned a goal and predicts the bike is on the car's path. The plan developed at 1.5 seconds to steer around the object to the right is no longer possible. Action suppression begins.

10. .2 seconds from impact: **retains classification as "bicycle."** Action suppression ends. Auditory alert indicates ADS engaging in a controlled slowdown (not braking);

11. .02 seconds from impact: Operator grabs the steering wheel.

Because the program changed the classification of the object several times, and never classified it for what it was – a jaywalking pedestrian - it was unable to predict Ms. Herzberg's path and respond accordingly.[46] The grand jury needed to know this information because it is critical for them to be able to understand how the vehicle was responding/not responding to its environment. By understanding that, they would been in a better position to evaluate the "reasonable person" standard and causation. By failing to present this evidence to the grand jury, MCAO and Marsland denied Ms. Vasquez her due process rights and made the presentation fundamentally unfair.

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[46] Post-crash, ADS was updated. If the system now detects a pedestrian outside a crosswalk, it can consider jaywalking as a possible pedestrian goal, that is, it can consider that the pedestrian will cross into the street.

2. <mark>**Marsland Failed To Advise The Grand Jury That He Was Told By Volvo That Had Uber Not Deactivated The City Safety And FCW Systems The SUV Would Not Have Collided With Ms. Herzberg**</mark>

Had Uber not deactivated the City Safety and FCW programs, this collision may never have occurred, but even if it had occurred, it would have been at a much slower speed because the impact would have been significantly mitigated by the system's braking capabilities. Ms. Herzberg's death would have been unlikely.[47] After the accident, Volvo conducted a series of test to determine if its system would have detected a pedestrian under the circumstances present the night of the collision and to determine if the vehicle would have avoided her. It concluded that its system would have detected the pedestrian as being on a collision course with the car.[48]. It also concluded that City Safety would have alerted the driver 2.5 seconds before impact and activated braking 1.4 seconds before impact. In 17-of-20 test scenarios, the Volvo avoided the collision. [49] In the other 3-of-20 tested scenarios, the collision occurred but the impact speed was only 10 mph.[50]. It's likely Ms. Herzberg would not have been killed, even if she was hit by the car.

Marsland was told by Volvo that had their City Safety and FCW systems been engaged, it would likely have prevented this collision. Marsland never bothered to review Volvo's data.[51] Even worse, Marsland apparently never bothered to determine if the Uber

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[47] The system alerts a driver when approaching a slow-moving or stopped vehicle. If the driver does not respond by braking or steering away, the system automatically brakes to prevent or mitigate a rear-end crash. The version of City Safety installed on the SUV could detect pedestrians, bicyclist or large animals. If the system detected an impending collision, it would alert the driver or automatically brake. NTSB Final Report pg. 20

[48] NTSB Final Report pg. 21

[49] *Id.*

[50]NTSB Final Report pg. 22

[51] (RT 28:11-20).

drivers were aware that the City Safety and FCW systems had been disengaged. Had he done so, he would have found out that they were not aware. Deactivation of City Safety and FCW was a checklist-item for the operators. Prior to leaving the parking garage, the operator had to manually deactivate the system temporarily. However, that protocol changed. Due to an excessive number of minor accidents occurring as drivers were leaving the parking garage to begin their shifts, Uber told the drivers that City Safety and FCW were activated full time. As the post-accident investigation revealed, however, both systems had been deactivated. This fact was not known to Ms. Vasquez.

Uber sent its operators out onto the streets of Tempe unaware City Safety and FCW were deactivated and cloaked them in a false sense of security. That combined with the typical effects of automation complacency proved a lethal combination. As the NTSB report stated:

> *The Uber Advanced Technologies Group's deactivation of the Volvo forward collision warning and automatic emergency braking systems without replacing their full capabilities removed a layer of safety redundancy and increased the risks associated with testing automated driving systems on public roads.*[52]

As an investigative body, the grand jury needed to know this information. However, it was deprived of essential facts relevant to its inquiry. As a result, Ms. Vasquez' due process rights were violated because the presentation to the grand jury was misleading, did not include clearly exculpatory evidence and was fundamentally unfair.

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[52] NTSB Final Report pg. 57

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D. **Marsland's Accident Scene Reconstruction Testimony Was False And/Or Misleading**

Marsland told the grand jury that he completed a comprehensive accident scene reconstruction investigation.[53] He advised the grand jury the TPD had employed the services of an expert to recreate the exact lighting conditions from the night of the collision.[54] Based on what he touted as being a thorough investigation, he told the grand jury that, had Ms. Vasquez been paying a "reasonable amount of attention," the collision would not have occurred[55]and that "the findings of this analysis is that an average person would have been able to stop in time to avoid the crash"[56] and that the crash "should have been easily avoided."[57] However, what he told the grand jury contradicted his own findings. He intentionally withheld this information from the grand jury. Had he been truthful, the grand jury would have heard that even a reasonably alert driver could still have hit Ms. Herzberg.

1. **Marsland Deliberately Misled The Grand Jury By Misstating The Amount Of Reaction Time He Used In His Accident Scene Calculations And MCA) Failed To Correct His Misstatements**

Marsland also falsely testified that, after "correcting for all the statistical differences between people in the population" the distance from which he did his analysis to determine if an alert driver could stop in time to prevent the collision was the point where the travelling SUV was 143 feet from the point of the collision.[58] Using the 143-feet-from-the-collision-

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[53] (RT 14:6-16:12; 43:13-22).

[54] (RT 23:10-24:10).

[55] (RT 15:20-25)

[56] (RT 16:9-12)

[57] (RT 25:21-24).

[58] (RT 43:14-22).

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spot as a starting point, in his report Marsland calculated two critical factors – braking distance and reaction time. He evaluated those factors under two separate scenarios, one involving a driver reaction time of .5 seconds, the other involving a driver reaction time of 1.25 seconds.

The first factor, braking distance, is a constant. In other words, regardless of a specific individual's reaction time, from a travel speed of 43.5 mph this SUV required a set amount of time to come to a rest once full braking was applied.[59] Marsland calculated that distance to be 68.54 feet.

The second factor, reaction time, is variable. Here, Marsland misled the grand jury in a critical way. He testified to the following:

> *And then we established a reaction time, and that comes from published data as well. There's generally a range. I always use the <u>upper-most or – sorry – upper most value to try to encompass as many people as possible</u>.* [60]

He implied that he was giving Ms. Vasquez every possible advantage because by increasing her reaction time he was allowing her more time to react the circumstances present that night. More time to react equates to less distance left to actually stop. However, according to his own report, he indicated the published studies reflected a reaction time range of .6 seconds to 1.25 seconds for the average person. Even though he testified he

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[59] Marsland used a travel speed of 43.5 mph. The date collected by Uber from the SUV's software and depicted in the NTSB report shows the SUV traveling at 44.6 – 44.8 mph within the 5.6 seconds-to-impact time frame. Based on a conversion factor of 1.467, to convert miles per hour to feet per second, the difference between the two speeds is minimal by still significant in a quantitative sense. This discrepancy may demonstrate Marsland general inattention or indifference to detail.

[60] (RT 15:11-15) (emphasis added)

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applied the "upper-most value" (1.25 seconds), in reality, the opinion he gave to the grand jury was based on his calculations using a .5 second reaction time, <u>a value below the published range</u> he had just described to the grand jury.[61] He never told them that he had used that below-the-low-end value to reach his opinion. Unbeknownst to the grand jury, Marsland had also calculated a driving scenario predicated on a driver reaction time of 1.25 seconds (the "upper most value" that he told the grand jury that he used). His own calculations showed that the SUV would <u>not</u> have stopped in time, but instead would have hit Ms. Herzberg.[62] He deliberately omitted this from his grand jury testimony because he knew the impact that information would have had on the grand jury's probable cause analysis. This false and misleading testimony is sufficient alone to warrant remanding this matter.

However, Ms. Vasquez's actual reaction time was irrelevant to the grand jury's analysis of the "reasonable person standard." In other words, he replaced the objective standard required by law, the "reasonable person standard" with a subjective standard - Ms. Vasquez' alleged reaction time. This is yet another example of MCAO allowing the grand jury to hear improper evidence and failing to correct it. To use Ms. Vasquez' alleged reaction time that is represented to be "quicker" that the standard range is no more appropriate that it would be to use a defendant's slower than standard reaction time.

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[61] In his report, Marsland asserts he used a 0.5 second reaction time because during his observations of Ms. Vasquez' eye movement in the critical seconds just prior to the collision, his observations suggested a reaction time of 0.5 seconds.

[62] Marsland calculated that the SUV would have hit Ms. Herzberg at 12 mph. There was no testimony before the grand jury about the specifics of Ms. Herzberg's injuries, or even which specific injury(s) caused her death other than the cause of death was "blunt force trauma." (RT 13:14-16). There was no evidence presented to the grand jury that that a 12 mph collision between an SUV and a pedestrian would be fatal.

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2. Marsland Recklessly Or Intentionally Misstated The Speed At Which Ms. Herzberg Was Traveling Across The Street And Simply Assumed She Was Walking At A Constant Rate Of Speed

3   Marsland's testimony was fundamentally flawed in other ways. First, he assumed that

4 Ms. Herzberg moved at a constant rate of speed from the west curb of the road to the

5 collision point. While it might have made his mathematical calculations easier, it certainly

6 didn't take into account a range of readily identifiable scenarios that could have been

7 analyzed, quantified, and also then presented to the grand jury. In fact, he did nothing more

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9 than present testimony that fit his theory of the case instead of giving the grand jurors

10 sufficient facts upon which to make their own decision on probable cause.

11   In support of his testimony, he told the grand jury about the various cameras in the

12 vehicle.[63] He later testified to the following:

13   *The video which captures the lead up of the crash provides*
14   *some data as to how quickly the pedestrian was traversing the*
         lane.[64]

15 He went on to say:

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17   *[M]y calculation showed that the pedestrian was crossing the*
         roadway laterally at a speed of about three and a half miles an
         hour, which is about normal for a pedestrian.[65]

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19 During his testimony, he acknowledged that his opinion of Ms. Herzberg's speed was

20 based on an assumption that she was walking directly perpendicular to the path of the SUV

21 and acknowledged the possibility that she may have been moving faster, but "certainly not

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23 [63] (RT 16:14-25).

24 [64] (RT 40:17-19)
    [65] (RT 41: 3-5)

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less than that."[66] Even the diagrams he relied on that showed her path of travel revealed that she was not moving perpendicular to the SUV.

However, Marsland's testimony was false and misleading. For example, in his report he concluded that Ms. Herzberg was 43.5 feet from the west curb when she was struck.[67] According to the downloaded vehicle data, Ms. Herzberg was first spotted as an "object" on the systems radar approximately 5.6 second before impact, at which time she was 10 feet east of the west curb. That means that Ms. Herzberg covered 33.5 feet (43.5 – 10.0) in 5.6 seconds. Contrary to Marsland's testimony that, assuming she was moving at a constant rate of speed, she was walking at 4.67 fps or 3.18 mph, simple math confirms she was moving considerably faster. According to Marsland's own calculations, she would have had to cover the 33.5 feet in 5.6 seconds. That equates to 5.98 fps, or 4.1 mph, not the 3.18 he testified to. Using that math, she would have covered the first 10 feet of her path in 3.7 seconds, which is 2.7fps or 1.8 mph. If nothing else, his own calculations would show that she <u>increased</u> her speed (from 1.8 mph to 4.1 mph) as she approached the collision site, which might suggest that she sped up in an effort to "beat the car", a very common practice of jaywalkers. The grand jury should have been provided with that information, instead it was concealed from them.

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[66] (RT 41:8-10).

[67] Ms. Herzberg was moving west-to-east, from the west curb of the street to the east curb.

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E. **Marsland Concealed Critical Information From The Grand Jury Regarding The NTSB's Accident Scene Investigation And Its Findings**

As discussed above, neither Marsland nor the State made any effort to advise the grand jurors that NTSB had authored a report of its findings. That report contradicted Marsland's testimony in several key areas. Failing to inform the grand jury about the operation of the vehicle, its technical limitations and the surrounding circumstances of the collision violated Ms. Vasquez' due process rights. Evidence that was concealed from the grand jury, includes, but is not limited to the following:

1. **Marsland Provided Inaccurate Distances Regarding How Far From The Impact Area The Street Lights Were, Thus Skewing The Grand Juries Perception Of The Lighting Conditions**

Marsland testified the roadway was well lit at the location of the collision. (RT 23:23-24:6). He described the area as "very, very well lit." That was not accurate.

A grand juror asked Marsland a specific question about the lighting at the scene.[68] It appears at least one grand juror was familiar with that area. Marsland answered that the nearest light was about 30 feet away but could have been as close as 20 feet. That was false. The NTSB findings, which he concealed from the grand jury, measured the closest light to be 47 feet south of the impact area on the right side of the street, and 57 feet south of the impact area on the left side of the street – the direction from which Ms. Herzberg came. In addition, the street light 157 feet north of the impact scene was not working. None of this information was provided to the grand jury.

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[68] (RT 31:21 – 32:10).

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2. Marsland Gave The Grand Jury The False Impression That The Location Of The Collision Was A High-Traffic Pedestrian Area

Marsland also mischaracterized the area where the accident occurred. In response to grand juror's question about whether the area where the accident occurred was heavily trafficked, the detective testified that the impact area was a "high pedestrian area."[69] This echoed the misrepresentation he had made earlier when he told the grand jury that there were pedestrians in this area at "all times of day or night".[70] This testimony was false and misleading and Marsland knew it.

One this topic, the NTSB relied on information produced by the City of Tempe pursuant to a pedestrian traffic survey.[71] In its report it noted "[A]t the request of NTSB investigators, the city of Tempe obtained a daily count of pedestrians (66) and bicyclist (12) in June 19, 2018. In footnote 8 of the NTSB report, it went on to say:

> *The pedestrian and bicyclist count was conducted during a 24-hour period on a Tuesday, along N. Mill Avenue between the SR-202 overpass and about 175 feet south of Curry Road, covering a distance of about 500 feet. No sidewalks are present along this segment of N. Mill Avenue. A musical event occurred at a nearby business [The Marquee] during the count, which suggest that the average daily count was smaller, possibly considerably smaller.*

In fact, the concert that occurred on the night of the collision had a substantially smaller attendance than the concert that occurred on the night the survey was conducted. Marsland knew this but never fully explained it to the grand jury. The pedestrian survey he

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[69] (RT 31:19-20).

[70] (RT 11:17-20).

[71] (NTSB Final Report pg. 3).

relied on to support his opinion was conducted on a night when The Marquee sold 1418

tickets to the concert. The survey broke down the pedestrian traffic (which reflected

pedestrian traffic on June 19, 2018) and showed a total of 69 pedestrians from Noon to

Midnight. However, that was a misleading total because of the 69, 63 were from 6:45 pm to

Midnight (91%), a time period that corresponds with the concert that was going on the night

of June 19, 2018. In contrast, the Marquee sold only 113 tickets for the concert on the night

of the collision – 8% of the June 19, 2018 total. Applying the same percentages, that would

mean there were approximately five (5) concert-related pedestrians spread out over a several-

hour period – hardly a "high pedestrian area." Even worse, there is NO evidence that any of

those who attended either concert jaywalked in the area of the collision.

Marsland left the grand jury with the totally false impression that it was common for

pedestrians to be in this area at this time of night, doing the things that Ms. Herzberg was

doing – crossing the street in a prohibited area. Given that the grand jury was aware that Ms.

Vasquez drove the same route every time, the grand jury was led to believe that she would

have encountered pedestrians in this area on a frequent basis, thus putting her on notice of

the dangers and making her alleged behavior appear criminal.

More problematic was MCAO's and Marsland's failure to advise the grand jury of

some basic, but highly relevant statistics. For example, the NTSB noted that nearly 75% of

pedestrian fatalities occur when its dark out. And over 70% occur between intersections,

away from crosswalks. This collision occurred at night and away from a crosswalk. The

grand jury should have been advised of this because MCAO was claiming Ms. Vasquez'

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conduct constituted a gross deviation from a reasonable standard of care. These statistics say

otherwise and Marsland knew that.

Marsland clearly understood the danger of pedestrian-vehicle accidents. In April of

2021, the detective appeared in a public safety video entitled *See Me AZ*. During that

appearance the detective reflected on horrific accidents he had been called upon to

investigate and spoke of the never being able to forget some of the things he has witnessed.

He cautioned that when in the role of a pedestrian or cyclist, it is dangerous to believe that

seeing a car coming means that the driver of the car can see the pedestrian or cyclist.

> *… There is no such thing as a fender bender when being struck by a car when you are a pedestrian or cyclist, and the stakes are extremely high for those people, and so extra care and simply not confidence in others being able to see you, but extra care to be sure that you make eye contact with the driver before stepping into a crosswalk to make sure that they see you. ... One of the most prominent commonalities between the cyclist and pedestrian crashes is simply a misunderstanding of the requirements in operations.* ***A line-of-sight issue is one of the things that can contribute to a crash. Um, I think at night, visibility and sight lines and sight distances can be very misleading, especially for cyclists and pedestrians and so we see pedestrians often observe a car on the road and have the mentality that if I can see that car then they should be able to see me, and um, so they begin to cross the street and assume the car will see them and stop see them***.[72]

3. Marsland Never Fully Disclosed That There Were Numerous Warning Signs Telling Pedestrians Not To Cross At The Location Ms. Herzberg Did And That There Was A Designated Pedestrian Crosswalk 380 Feet North Of The Impact Area

When asked about the presence, or absence of a crosswalk at the impact location,

Marsland said "[T]here was not a marked crosswalk there or an unmarked cross walk for that

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[72] https://www.youtube.com/watch?v=VPGGJttpJUY

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matter."[73]   Nor did he mention any of the dangers he discussed in the video. His answer to the grand juror's question was vague and misleading because the grand jury should have been told about numerous other facts known to Marsland. For example, he should have told them: (1) at the location where Ms. Herzberg illegally crossed the street, there were four signs prohibiting pedestrian crossing. Marsden testified only to the fact that there were "some signs" signaling to pedestrians not to cross at that location and to use the crosswalks that are near the intersection)[74]; (2) no one could determine how Ms. Herzberg arrived on the median strip; (3) post-crash, the City of Tempe added four (4) additional signs warning pedestrians against crossing at that location; (4) post-crash, the City of Tempe re-landscaped the median that Ms. Herzberg traversed to get to the west curb of the street and made that terrain unsuitable for walking.[75]

For a typical driver passing through here on a regular basis (such as Ms. Vasquez, who had completed seventy-three loops on this route) there would be an expectation to see pedestrians at the crosswalk 380 feet north of the impact scene, not where Ms. Herzberg was crossing. The grand jury, some of whom asked questions about the jaywalking, should have been given this information to consider. Instead, they again received a false impression of pedestrian activity at, or near, the collision sight.

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[73] (RT 30:24 – 31:3).

[74] (RT 31:13-18)

[75] Counsel is unaware of any prohibition against presenting subsequent remedial measures in a criminal case.

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4. Marsland's Visibility Analysis Was Based On Facts That Did Not Fairly And Accurately Reflect The Situation On The Night Of The Collision

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Marsland failed to consider the information that he offered to the public in the safety

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video. He testified repeatedly that he had conducted a visibility study to determine at what

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distance a "normal, average driver" would be able to see a pedestrian crossing at the location

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of the collision under similar lighting conditions.[76] (each time he described how at certain

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distances his visibility analysis showed that a driver could see the pedestrian and vice-versa).

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Ultimately, he testified that, based on his analysis, the critical visibility distance was 143 feet

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(after factoring several variables) from the collision spot.[77] However, the calculations he

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used to arrive at the critical visibility distance of 143 feet were based on faulty assumptions

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that he knew, or should have known were unreliable.

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For example, his tests concluded that Ms. Herzberg would have been visible from a

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distance of 637 feet (before factoring in that the driver in his survey knew he was looking for

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a pedestrian at that location in the street and to adjust the numbers to the driving mean – the

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expectancy factor). However, where the pedestrian was standing when sighted at the 637-

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foot mark could not have been her actual location at the time Ms. Vasquez was at that

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distance that night. Marsland placed the "mock" pedestrian at least 10 feet further out into

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the road than Ms. Herzberg would have been that night. This is significant given the location

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10 feet closer to the west curb would have obscured Ms. Herzberg from Ms. Vasquez' view

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because of vegetation. More significantly, the NTSB report noted that because drivers don't

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[76] RT 14:8 - 15:25 / 23:21 – 24:10 / 33:8 – 15 / 42:4 – 43:22).

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[77] (RT 43: 13-21)

typically scan outside a roadway's travel lane while negotiating a curve, Ms. Vasquez would not have first noticed someone in the road until 3.9 seconds, or 243 feet, before impact.[78] Applying Marsland's own calculations to that 243-foot distance would have resulted in a completely different conclusion – one that the grand jury was never made aware of.

F. Marsland And MCAO Concealed From The Grand Jury The Fact That Uber Recently Removed the Co-Pilot From All Its Automated Vehicles

No evidence was presented to this grand jury that explained the fact that these vehicles were designed to be operated during the testing phase by two people, not just one. Marsland knew this, but kept it to himself. He described to the grand jury the general concept of Uber using an employee in the driver's seat to monitor the vehicle performance.[79] Later in his presentation when he had an opportunity to provide the second-driver information to the grand jury, but deliberately chose not to. When he was asked a follow-up question by a grand juror about his testimony concerning the mobility of the HMI in the center console, he elected to mislead them.[80] He testified that the HMI pivoted away from the person in the driver's seat in order to allow access to a compartment in the vehicle. In truth, the HMI pivoted because it was installed that way to allow the second operator in the passenger seat to interact more easily with the HMI.

The NTSB also knew the significance of removing the second operator from the car. In September-October of 2017 the ATG vehicles switched to a single operator.[81] (as The

[78] NTSB Final Report at pg. 43.

[79] (RT 6:22 – 7:12).

[80] (RT 38: 9-20).

[81] (RT 38: 9-20).

Whistleblower had explained to Hauboldt, Uber did this because it needed to accelerate the approval for fully autonomous driving, not because it was then safe to do so. Marsland knew this also. As the NTSB stated, "by removing the second operator, ATG also removed a layer of safety redundancy." [82] The NTSB concluded the following:

> *Technical complexities influenced the design of the ADS, resulting in the removal of diminished use of layers of safety redundancy. In that light, ATG's decision to remove the second vehicle operator from its vehicles – and rely on only one operator as a monitoring mechanism was even more significant. The unintended adverse consequences of removing the second operator were exacerbated by ATG's inadequate oversight of vehicle operators. The NTSB concludes that although the installation of the HMI in the Uber ATG test vehicles reduced the complexity of the automation-monitoring task, the decision to remove the second vehicle operator increased the task demands on the sole operator and also reduced the safety redundancies that would have minimized the risk associated with testing the ADSs on public roads. The NTSB further concludes that although the Uber ATG had the means to retroactively monitor the behavior of vehicle operators and their adherence to operational procedures, it rarely did so; and the detrimental effect of the company's ineffective oversight was exacerbated by its decision to remove the second vehicle operator during testing of the ADS.*

In other words, Uber's removal of the second operator created more danger to the public, not less. Marsland deliberately omitted this information in his testimony. That information would have assisted the grand jury in understanding the actions taken by Uber that placed more responsibilities on Ms. Vasquez and made functioning as a solo operator more dangerous.

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[82] NTSB Final Report pg. 45

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G. **Marsland And MCAO Failed To Explain The Known Effects Of "Automation Complacency" And The Impact It Had On Ms. Vasquez' Alertness**

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The NTSB report noted that:

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Automation complacency occurs when the operator becomes very comfortable with the technology and relaxes the oversight that they are supposed to provide. It's present in many crashes and seen in all modes of transportation. Automation performs remarkably well most of the time and therein lies the problem. Human attention span is limited, and we are notoriously poor monitors[83]

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The issue of Ms. Vasquez being distracted because of possible driver fatigue was raised by the grand jury.[84] In particular, Marsland was asked if he "had any reason to believe their [Ms. Vasquez'] reaction time would have been compromised in any way."[85] Dodging the issue, the detective responded that there was "no indication that fatigue was really any issue."[86]

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Marsland knew, or should have known, about the effects of automation complacency and should have explained to the grand jury its documented effects. The NTSB had mentioned it 18 times in its final report. Ms. Vasquez had been an operator on this same loop 73 times previously, without incident. The repetitive nature of the task, coupled with the false sense of security provided by Uber's touting of the vehicle's technology, had a profound effect on her, and any other operator piloting such a car. The State's entire theory

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[83] NTSB Final Report pg. 62

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[84] (RT 38: 9-20).

[85] (RT 27:1-2).

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[86] (RT 27:8-10).

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of criminal culpability in this case is based on the claim that Ms. Vasquez was a distracted driver because she was watching streaming content on her cell phone while she was the operator in the SUV.[87] Marsland testified numerous times that Ms. Vasquez continuously looked down during her shift.[88] Marsland testified that Ms. Vasquez was looking down just prior to the collision.[89] However, the amount of time he testified she was looking down was not accurate. She started looking down approximately six seconds before the collision but looked up approximately one second before impact. That means she was not focused on the roadway for approximately 5 out of the six seconds before the collision – not the seven seconds Marsland claimed.[90] Further, according to the NTSB, the only relevant period of distraction was the 3.9 second period prior to impact.[91] That's the time period when the SUV exited the curve in the road.   Had Marsland been interested in an accurate and fair presentation of evidence he would have told the grand jury the relevant period of inattentiveness was only 2.9 seconds, not 7 seconds. This made his testimony highly misleading.

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[87] As was discussed above, this fundamental premise is false and Marsland could have easily figured that out had he had simply done his job and pursued information he was aware existed or that was easily available to him.

[88] (RT 17:22 – 18:3 / 20:9 – 22:22 / 33:20 – 34:10).

[89] (RT 26:3-6).

[90] Uber had instructed its drivers that they could look away from the road for up to 5 second intervals to administer to task required of them as operators of the vehicle.

[91] (NTSB Final Report pg. 43).

Further, Uber did not have a dedicated fatigue risk management policy.[92] (The negative effects of automation complacency have been documented in industrial monitoring, air traffic control, aviation crashes and passenger ship groundings. The NTSB wrote:

> *When it comes to the human capacity to monitor an automation system for its failures, research findings are consistent – humans are very poor at this task. The NTSB concludes that the vehicle operator's prolonged visual distraction, a typical effect of automation complacency, led to her failure to detect the pedestrian in time to avoid the collision. The NTSB further concludes that the Uber ATG did not adequately recognize the risk of automation complacency and develop effective countermeasures to control the risk of vehicle operator disengagement, which contributed to the crash.[93]*

Ms. Vasquez was not acting negligently by looking down during this critical period. Instead, she was fulfilling an operator task required by Uber and was a victim to automation complacency, just as any other "reasonable" operator of an automated Uber SUV would have been. All this relevant information was known, or should have been known, to MCAO and Marsland, and should have been presented to the grand jury. Automation complacency is clearly exculpatory evidence because it explains Ms. Vasquez' inattention during the critical moments before the collision. More importantly, automation complacency was not unique to her. Everyone person operating such a SUV falls prey to it. When being asked to determine if her inattention constituted "a gross deviation from what a reasonable person would observe in the situation" the grand jury needed to evaluate her actions in the context of an

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[92] NTSB Final Report pg. 27

[93] NTSB Final Report pg. 44

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operator of an automated vehicle, not from the perspective of your average non-automated vehicle driver.

If Marsland was unaware of the documented phenomena, he had no business testifying in a case where the grand jury was being asked to make a finding based on a "reasonable person" standard. To further compound the problem, Marsland testified that Uber operators were strictly prohibited from using their cell phones.[94] This was false. The operators were instructed not to touch their phones while in the car, however, the "chat app" Slack, that was on Ms. Vasquez' operator phone (but not her "personal" phone that was streaming Hulu) was used by all the Uber operators to communicate with the company while on the road. They were allowed to stream content on their phones and through ear pieces as long as they were not watching the screen of the phone as was discussed above. (*See* Exbibit C).

H.   The State Failed In Its Obligation To Properly Instruct The Grand Jury On Causation, Which Was Critical To Its Probable Cause Analysis In This Case

Causation is an element of Negligent Homicide.

Conduct is the cause of the result when both of the following exist:

> *But for the conduct the result in question would not have occurred.*

> *The relationship between the conduct and the result satisfies any additional causal results imposed by the statute defining the offense.[95]*

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[94] NTSB Final Report pg. 27

[95] A.R.S. §13-203(A)(1)-(2)

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1   There is no evidence in the grand jury transcript that this grand jury was provided that

2   statute.[96] Given the issues discussed in this motion, and all the information that was withheld

3   from this grand jury that related directly to causation, the MCAO's failure to properly

4   instruct on the law is sufficient, standing alone, to warrant a remand.

5   **I.   The State And Marsden Failed To Explain The Role Automated Driving Technology Played In Determining The Appropriate Reasonable Person Standard**

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7   The grand jury needed to evaluate Ms. Vasquez' conduct relative to the standard of

8   care of a "reasonable person <u>in that situation.</u>" [97]   The grand jury needed to determine if Ms.

9   Vasquez failed to perceive the risk that constituted a gross deviation from that standard of

10   care.   Marsden consciously decided to ignore the real-world implications of operators seated

11   in an automated vehicle. For example, he told the grand jury, that he never really considered

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13   the effect of automation on an operator.

14   *What I'm mostly concerned with in my investigation is what we expect of most people. So since most people don't have that technology, I didn't really end up looking into what technology may have been available.*[98]

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17   The NTSB understood the significant role technology played in this case and

18   Marsland knew, or should have known that. If he didn't, he had no business doing an

19   accident scene analysis involving and automated vehicle. Either way, his testimony was

20   false and misleading and violated Ms. Vasquez' due process rights.

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[96] (RT 3:14-17) (See *Wilkey v. Superior* Court at 528).

24   [97] (*See* RAJI 11.02, emphasis added).

25   [98] Marsden was referring specifically to Volvo's technology. (RT 28:15-20).

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J. **Marsland Deliberately Downplayed The Impact Ms. Herzberg's Use Of Methamphetamine Had On Her Perceptions, The Collision And Issues Relating To Causation**

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Marsland told the grand jury that Ms. Herzberg's blood contained methamphetamine,

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but failed to explain its significance.[99] When given an opportunity to explain the possible

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role that her methamphetamine use played in the accident, he downplayed it, saying only

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"[I]t's one the [sic] facts as part of the whole investigation."[100] In contrast, the NTSB

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concluded that the level of methamphetamine in Ms. Herzberg's system "strongly indicates

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impairment and chronic misuse."[101] However, Marsland never accounted for Ms. Herzberg's

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drug use in any quantitative way in his accident scene analysis and he certainly never

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considered this factor in his causation analysis. This is especially telling given he also told

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the grand jury that Ms. Herzberg would have seen the car lights and identified them as

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such.[102] He testified that it was normal for a pedestrian to have seen the incoming car. Of

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course, Ms. Herzberg was not a "normal" pedestrian, given the level of methamphetamine in

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her system and the impact the drug likely had on her ability to perceive. In fact, it was much

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more than that because it actually played a significant role in the causation analysis –

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something the grand jury should have been told. Her methamphetamine use played a role in

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her ability to see the approaching vehicle, her decision to cross the street in an unmarked

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area and her failure to take any mitigating steps to avoid the collision. All this information

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was known to Marsland, yet he shared none of it.

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[99] Ms. Herzberg also had THC in her system. This was not disclosed to the grand jury. (NTSB pg. 22) (RT 13:17-18).

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[100] (RT 36: 6-11).

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[101] NTSB Final Report pg. 36.

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[102] (RT 30:10-23; RT 33:12-19).

1   According to the NTSB analysis, Ms. Herzberg had ten-times (10x) the therapeutic

2   dosage in her system.   Per its findings, that level strongly indicates that she was a chronic

3   abuser of methamphetamine and that she was impaired and that methamphetamine

4   particularly can severely affect perception and judgement.   The NTSB concluded the

5   following:

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         Therefore, the pedestrian's decision to cross the street, and her
7   *failure to take evasive action before the collision, could be*
         attributed to the impairing levels of methamphetamine found in
8   *her body.   The NTSB concludes that the pedestrian's unsafe*
         behavior in crossing the street in front of the approaching
9   *vehicle at night and at a location without a crosswalk violated*
         Arizona statutes and was possibly due to diminished perception
10   *and judgement from drug use.*[103]

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12   Marsland also told the grand jury that Ms. Herzberg needed only another "foot and a

13   half to get past the fender of vehicle."[104] Ms. Herzberg's impairment was relevant to the

14   grand jury's analysis, yet Marsland purposefully downplayed it.   The detective is a seasoned

15   accident scene investigator who understands the effects methamphetamine and marijuana

16   would have on a person's perceptions and judgements. Marsland chose to withhold that

17   information from the grand jury. By concealing this highly relevant information he denied

18   the grand jury the opportunity to fully understand what role Ms. Herzberg's impairment had

19   on the collision and to ask relevant follow-up questions related to causation. Ms. Vasquez

20   had a legal right to have the grand jury know this information.   Failing to present it denied

21   Ms. Vasquez her due process rights.

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24   [103] NTSB Final Report pg. 37

25   [104] (RT 12:18-22).

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K. **The State And Marsland Failed To Properly Advise The Grand Jury On Statutes Applicable to Ms. Helzberg's Legal Obligations Thereby Denying The Grand Jury Clearly Exculpatory Evidence It Needed To Evaluate An Element Of The Offense – Causation**

It's important to note that pedestrians and cyclists and cars all use the roadways together and they all have a part to play in making sure that traffic flows smoothly and naturally. We all share responsibility getting home safely regardless of what form of transportation we use. [105]

In an effort to understand if Ms. Vasquez caused the accident, the grand jurors asked Marsland numerous questions. In particular, he was asked a question about a driver's legal obligation to avoid running over a pedestrian. Prosecutor Wendell allowed Marsland to answer that question and provide testimony about Title 28.[106] The question was related to pedestrian responsibilities, but Marsland only testified about a driver's duties. Based on the public safety video the detective appeared in, and his experience as a member of the vehicular unit, Marsland understood that pedestrians have legal obligations. However, he refused to acknowledge that when asked by a member of the grand jury. Later, a grand juror asked another question relating to pedestrian responsibilities.[107] Here, however, Prosecutor Wendell interjected and obstructed the inquiry by telling the grand jury that that was an issue they needed to discuss among themselves in private.[108] Why? Marsland should have discussed his understanding of Title 28 as it relates to pedestrians, just as he was allowed

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[105] *See Me AZ* with Marsland.

[106] (RT 39:10 – 40:10).

[107] (RT 45:2-4).

[108] (RT 45:5-6).

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earlier to opine earlier about Title 28 as it related to the driver. At a minimum, MCAO as a

minister of justice, should have provide the grand jury with A.R.S. §28-793 which states:

> *A pedestrian crossing a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk at an intersection shall yield the right-of-way to all vehicles on the roadway.*

The grand jury should also have been advised about A.R.S. §28-79, which states:

> *Between adjacent intersections at which traffic control signals are in operation, pedestrians shall not cross at any place except in a marked crosswalk.*

In contrast, the NTSB was aware of the significance of these statutes and the role Ms.

Herzberg's violation of these statutes played in this collision.[109] These statutes would have

given the jury assistance in helping decide/debate the causation issues that are at the heart of

this case. Prosecutor Wendell improperly interfered with the grand jury's fact-finding

mission, failed to instruct them on the applicable law in violation of his duties and thereby

denied Ms. Vasquez her due process rights.

As discussed previously, Marsland also testified that the average driver should have

seen Ms. Herzberg crossing the street. Ms. Vasquez told the police that the pedestrian "came

out of nowhere."[110] What was known to Marsland, but what he withheld from the grand

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[109]NTSB Final Report pgs. 25-26.

[110] (RT 34:16-18).

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jury, was the fact that Ms. Herzberg's bike had no headlight, as was required by law and no

side reflectors that would have been illuminated by the approaching Volvo.[111]

> *A bicycle that is used at nighttime shall have a lamp on the front that emits a white light visible from a distance of at least five hundred feet to the front and a red reflector on the rear of a type that is approved by the department and that is visible from all distances from fifty feet to three hundred feet to the rear when the reflector is directly in front of lawful upper beams of head lamps on a motor vehicle. A bicycle may have a lamp that emits a red light visible from a distance of five hundred feet to the rear in addition to the red reflector.*[112]

Both MCAO and Marsland failed to inform the grand jury of the facts and the law, and in so doing, abrogated their responsibilities to deliver a fair presentation of the evidence. In contrast, the NTSB made numerous references to these facts and the law during its analysis of the collision. It concluded that Ms. Herzberg's impairment, and her crossing the street outside the crosswalk contributed to the collision.[113] This grand jury was told none of this information.

III.   CONCLUSION

The State's presentation to the grand jury violated Ms. Vasquez's right to due process by allowing the introduction of false or misleading testimony and by withholding clearly exculpatory evidence from the grand jury. Specifically, the State:

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[111] The NTSB report noted that pursuant to CFR 1512.16, newly sold bicycles for roadway use require reflectors on the front, rear and pedals, and to have side reflectors on the sidewall of the wheel spokes. Ms. Herzberg's bike was not new and NTSB was unable to determine when she obtained the bike.

[112] A.R.S §28-817(A)

[113] (NTSB Final Report, pgs. v-vi).

- Withheld clearly exculpatory evidence that Ms. Vasquez was NOT watching *The Voice* on her phone during her route and at the time of the collision, as Detective Marsland claimed;

- Failed to advise the grand jury that an Uber Whistleblower spoke with the police and warned them that Uber's safety practices and technology were faulty and the company should not be trusted to be forthcoming;

- Failed to advise the grand jury that Uber was aware of automation complacency and elected to do nothing to combat a typical and predictable consequence of automation;

- Failed to advise the grand jury that the NTSB, this country's preeminent investigative agency, reached different conclusion than TPD;

- Failed to advise the grand jury that Uber never programmed its vehicles to account for jaywalking pedestrians;

- Failed to advise the grand jury that Volvo conducted independent testing after the accident occurred which found that the collision would not have occurred had its City Safety forward collision system not been deactivated;

- Failed to advise the grand jury that Ms. Vasquez was unaware the City Safety forward collision system had been deactivated;

- Failed to advise the grand jury that Uber had recently removed the second vehicle operator from its cars and how that removal created a greater safety risk to the public;

- Provided false and/or misleading testimony regarding the Tempe Police Department's accident scene reconstruction including understating the speed Ms. Herzberg was travelling as she crossed into the path of the SUV, overstating the distance at which Ms. Vasquez would have first seen Ms. Herzberg, and falsely testifying that it used a "conservative" reaction time to account for Ms. Vasquez' ability to stop in time to avoid the collision;

- Failed to properly instruct the grand jury on the law of causation and failed to apply the appropriate reasonable person standard;

- Concealed from the grand jury critical findings contained in the final NTSB report by knowingly overstating the distance at which Ms. Vasquez would have first seen Ms. Herzberg, skewing the lighting situation as the collision scene;

- Allowed the witness to falsely testify to the grand jury that the collision occurred in a "high traffic" pedestrian area;

- Allowed the witness to misrepresent the number of warning signs advising pedestrians not to cross the street where Ms. Herzberg crossed;

- Failed to properly instruct the grand jury on laws relevant to Ms. Herzberg's legal obligations;

- Downplayed/ignored the effects Ms. Herzberg's methamphetamine abuse had on causation, and,

- Failed to advise the Grand Jury that Ms. Vasquez's alleged inattentiveness was a predictable consequence of automation fatigue. A problem well known in the industry and well documented in numerous studies.

By allowing those misrepresentations to stand without correction, the State failed to uphold its obligation to "not take advantage of his or her role as the *ex parte* representative of the state before the grand jury to unduly or unfairly influence it." [114]

The prosecutor's obligations before a grand jury include:

- Assuring that a fair and impartial presentation of the evidence occurs during the grand jury proceedings;[115]

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[114] Maretick v. Jarrett, 204 Ariz. 194, 198, ¶ 10, 62 P.3d 120, 123 (Ariz. 2003).

- Correcting misstatements and misrepresentations provided by a witness;[116]

- An absolute duty to present any evidence that might deter the grand jury from returning a true bill;[117]

- Adequately instructing the grand jury on all relevant law and applicable defenses.[118]

In Arizona, a criminal defendant has a due process right to a fair and impartial presentation of the evidence to the grand jury. That right is violated when the prosecutor presents evidence that misleads the grand jury, fails to present exculpatory evidence, or fails to present evidence that might deter the grand jury from returning a true bill. For the reasons discussed above, this Court must remand this case for a new determination of probable cause and order the State to advise the grand jury of the issues raised in this motion.

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[115]*Crimmins v. Superior Court*, 137 Ariz. 39, 40, 668 P.2d 882, 884 (1983).

[116] *Maretick,* 62 P.3d at 124; *Nelson v. Royalston*, 137 Ariz. 272, 279, 669 P.2d 1349, 1354 (Ct. App. 1983).

[117] *Trebus v. Davis*, 189 Ariz. 621, 625, 944 P.2d 1235, 1239 (1997*); State v. Superior Court* (Mauro), 139 Ariz. 422, 425, 678 14 P.2d 1386, 1389 (1984).

[118] *Maretick*, 62 P.3d at 123-124, *Crimmins v. Superior Court*, 137 Ariz. 39, 42-43, 668 P.2d 882, 885- 886 (1993).

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RESPECTFULLY SUBMITTED this 5th day of July, 2021.

THE LAW OFFICES OF ALBERT J. MORRISON

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Phoenix, AZ 85003

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<u>EXHIBIT A</u>

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<u>TO BE HAND-DELIVERED TO THE COURT</u>

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<u>EXHIBIT B</u>

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