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## MEMORANDUM

TO: Common Council President and All Alders  
Mayor Satya Rhodes-Conway

FROM: City Attorney Michael Haas  
Deputy City Attorney Patricia Lauten

DATE: March 18, 2021

RE: Review of September 1, 2020 Zoom Recording

Attached is the report of USA Forensic LLC outlining its voice and data analysis of the Zoom recording of the Common Council meeting on September 1, 2020. Due to the limitations of the available data from the recording and from Zoom, the report is not able to make a definite conclusion regarding the identity of the person who uttered a vulgarity during the meeting. The report does attempt to rule out several individuals whose Zoom microphones appeared to be activated during the time period in which the word was spoken, although that part of the review is described as being outside its standard scientific and forensic analyses. This memorandum provides some background information related to the report and our role in facilitating the process.

On October 6, 2020, the Council passed a resolution in response to a complaint filed by Shadayra Kilfoy-Flores alleging that Alder Paul Skidmore had directed a gender-based vulgarity at her during the Council meeting in the early morning hours of September 2, 2020. The Council's resolution authorized the expenditure of up to \$10,000 for the procurement of:

A forensic IT analysis, examining metadata, logs and any other relevant digital information in the Zoom and any other software program used to store or manage data related to the September 1, 2020 Common Council meeting by a highly qualified digital forensic investigator.

A forensic speaker recognition analysis of the September 1, 2020 Common Council meeting by a highly qualified audio forensic expert using properly scientifically verified approaches.

The resolution authorized the City Attorney to select and contract with service providers to complete the analyses and to receive the results. It also directed that the results of the analyses be provided to the Common Council no later than November 10, 2020. At the time of the Council's resolution, a variety of factors were unknown, including the time that would be required to locate and retain a qualified analyst, the data that would be available from Zoom and the City's IT Department, and the time needed to complete a thorough analysis.

After researching several alternatives, on October 20<sup>th</sup> the City Attorney's Office engaged USA Forensic LLC of Phoenix, Arizona to analyze both the Zoom data and the voice recording from the September 1<sup>st</sup> meeting. Through the middle of November we dealt with issues related to the Zoom recording and specifically making sure that USA Forensic was looking at the correct piece of the video and matching it up with the correct Zoom data. Initially USA Forensic was looking at an incorrect spot of the recording because of the way that the IT Department saves and posts meeting videos, which meant we identified a different timing mark on the video we were viewing as compared to the spot on the video the analyst had been provided. One version of the video included the meeting breaks and the other did not.

The primary analyst and author of the report was Bryan Neumeister of USA Forensic LLC. From the beginning of the analysis, Mr. Neumeister emphasized that the review would be based on conclusions he could make based on science and the data, and that he would not make suppositions or guesses that did not meet legal standards for admissibility in a court of law. He also indicated that the brevity and softness of the audio being analyzed would likely make it very challenging to identify the speaker with scientific certainty. He noted that the word was spoken so softly that it did not trigger the Zoom video to switch to the speaker.

The City's IT Department supplied the Zoom recording and other Zoom data to USA Forensic. Deputy City Attorney Patricia Lauten served as the City's primary contact with Mr. Neumeister and USA Forensic staff during the course of the review, with City Attorney Haas participating in several meetings and discussions related to the review. City IT Department staff and the City Attorney's Office were careful not to indicate or suggest to USA Forensic what the word was or any individual to focus on. Nor did they provide the context of the Council's request, so as not to prejudice the analysis and report. Mr. Neumeister stated that he was not interested in that background as his analysis needed to be based on conclusions he could make from the available data.

As we previously indicated, while Zoom has been extremely cooperative throughout the process, it took some time for its technicians and legal department to determine what data could be provided due to the fact that there was no pending legal proceeding in which a subpoena had been issued. The federal Electronic Communication Privacy Act restricts certain information that can be shared and specifically in our case the City could not obtain IP routing data for microphones which were active during the time that was being analyzed,

and the City's IT Department does not have that routing data either. The routing data is different from simply obtaining the IP addresses which are available to the IT Department, and the lack of routing data means the analyst did not have a single data point from Zoom which identifies speakers. USA Forensic had to search for ways around the unavailability of that data which took some time.

The first part of the analysis attempted to isolate the source of the voice which had uttered the vulgarity by analyzing Zoom digital data and the audio traffic. At the end of January, USA Forensic had exhausted its ability to analyze the available data and was unable to determine the identity of the speaker in question given the one to three second limitation of the recording and the data available to analyze it. Because of the Common Council's desire to obtain useful results, we asked Mr. Neumeister to consider whether it was possible to at least rule out any potential speakers. Mr. Neumeister agreed to do so, with the caveat that the only process he could use would not be definitive and would not result in a finding that would be admissible in court under legal evidence standards.

For this part of the analysis, the City isolated and provided samples of voice recordings from other parts of the Zoom recording for 9 male individuals whose microphones Zoom identified as being activated at the time the word being analyzed was spoken. Given the complaint filed by Ms. Kilfoy-Flores, we also asked that a sample of Alder Skidmore's voice be included in this comparison, even though the Zoom logs did not indicate that his microphone was activated at the time.

USA Forensic compared the voice recordings from other parts of the meeting with the vulgarity audio using voice analysis tools, and did not simply listen to the voice comparisons. The analysis took into consideration such factors as background noise, distance of the speaker from the microphone, and any characteristics of voice patterns that could be identified. Because of his conclusion that the recording at issue contained little background interference and noise, Mr. Neumeister included images of individuals who wore a headset during the meeting, although the video did not show those individuals at the moment the word was spoken. This included two Alders and the IT Tech Facilitator who is routinely required to have their microphone open and wear a headset as part of their responsibilities. The results of that review appear at the end of the report.

The concluding page of the attached report also outlines some of the reasons that the analysis and report was not completed sooner as the Council had requested, such as limitations on data that could be obtained from Zoom without a warrant, the method of storing audio files of meeting recordings, and the demands on the time of USA Forensic, which is in high demand in many investigations and cases involving various government agencies and is under constant court-ordered deadlines.

Please feel free to contact us if you have any questions regarding this summary or the attached report.