

To: Madison Transportation and Parking Commission

From: Julie Younkin

Date: June 10, 2015

**RE: Madison Metro Audible Turn Signal Program**

My name is Julie Younkin and I live on S. Baldwin street in the Marquette neighborhood with my 3 year old daughter and my husband. Since we moved to Madison two years ago, I have often thought of our neighborhood as a modern day Mayberry where neighbors and children talk, laugh and play on front porches and sidewalks. This began to change last fall when the bus service to our neighborhood, which we initially regarded as a boon, became our bane instead. The busses are now a continuous and alarming presence in our lives.

To call this noise a chirp seems frankly disingenuous to those of us who live on one or multiple bus lines, designed as the sound is to cause warning bells to go off in one's head. Three bus lines execute a jog along our block from Jenifer to Spaight street meaning we hear the alarm as buses stop, turn right, turn left and stop again from first thing in the morning until well after we are in bed each night. I work from home so am forced to mark every 10-20 minutes of my day with one or more competing alarms - through the double-paned glass of my second floor office window.

The disturbance is undeniable. As measured by Metro, the decibel level of these alarms exceeds the city's own 65dBA maximum for residential areas as established in city code section 24.08(6a) pertaining to "Offences Against Peace and Quiet". These measurements exceeded the allowable maximum volume at a distance of 50 feet, much less at the 15 feet from our front door to the traffic lanes of our street. As a result, we have spent much of this spring not only indoors, but with air conditioners or fans running in an often vain attempt to block the sound and have pursued meditation and other means to try and cope with our growing anxiety over whether the bus alarms will ever cease. When my son is born in August of this year, I am certain we will experience additional frustration trying to create enough daily peace and quiet for a sleeping baby.

In fact, I invite each of you to visit me at my home and convince yourselves that a technology designed specifically for "busy urban environments" is appropriate in our neighborhood where two people a dog and a stroller crossing the street would be considered a pedestrian traffic jam. It is certainly true that many people in our neighborhood make use of the good Metro bus service to go to and from work each day - my husband was one of them - but outside of rush hours when most pedestrian accidents occur, the use of these alarms in our area is of questionable value at best and unconscionable at worst.

I have worked as a public health professional at Johns Hopkins University for nearly a decade and as such, felt compelled to find evidence of the efficacy of these audible

turn signals for myself in hopes that I could learn to live with a system that might actually prevent death or injury. But I have come up empty-handed. None of the cities in which this or similar technologies have been implemented (Portland, Cleveland, Washington DC) have yet been able to produce evidence that audible turn or stop alarms work to reduce death or injury, and these cities have instead suffered the backlash of angry citizens such as is mounting here in Madison.

What evidence I have found casts doubt on the likelihood that such a system would have any measurable benefit to public safety. Research suggests that as a preventive measure against distracted walking, audible signals are likely to fail for the significant group of distracted pedestrians using mobile devices. Those wearing headphones are unlikely to hear the alarm. In addition, use of cell phones has been shown to not only negatively affect cognition and reaction times, but causes inattentive blindness – a phenomenon whereby mental attention is divided across multiple simultaneous tasks leading to reduced visual *and hearing* perception. In other words, someone using a cell phone will be less likely to hear the bus alarm simply because they are already focused on multiple tasks and working to block out additional distractions.

I have also found evidence of 3 important ways in which people negatively adapt to such auditory alarms.

1. In other cities using similar technology, (Cleveland for instance) they have documented a decrease in drivers' use of turn signals so as to avoid the alarm's annoyance to themselves and passengers
2. Psychological studies suggest that over time, people adapt to repetitive auditory alarms such as these, nullifying any initial impact on heightened awareness. People will begin to actively ignore or be completely unaware of the alarm, especially in the context of a busy urban intersection subject to multiple other auditory and visual stimuli
3. Anecdotally, cyclists have told me that when biking they have been very tempted to illegally turn right in front of a stopped bus or otherwise unsafely pass just to "get away from the noise"

Does any of this make us safer or healthier?

In my opinion, no. Given the negative impact on my family and certainly on thousands of other Madisonians, I ask that you please consider stopping this program until at least such time as its efficacy can be proven AND a sensible, minimal application of the system can be designed for Madison. Failing that, I implore you to consider using the alarms only during rush hour in busy downtown intersections where there is a proven need.  
Thank you for your time.