Soft Lights Foundation
9450 SW Gemini Dr. PMB 717836
Beaverton, OR 97008
www.softlights.org

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Light should guide us, not blind us.

May 29, 2026

Jillian LeDuc, ADA Coordinator
Davis, California
JLeDuc@cityofdavis.org

Re: ADA Self-Evaluation - Introduction

Dear Ms. LeDuc,

This letter is submitted by the Soft Lights Foundation and by Mark Baker individually as an individual member of the public with a qualified ADA disability. We are in receipt of the city of Davis' (City) May 28, 2026, letter agreeing to Mr. Baker's request for compliance with 28 C.F.R. 35.105 ADA Self-Evaluation, including light and sound signaling.

To our knowledge, Davis is the first city in the country to agree to update its ADA Self-Evaluation and Transition Plan to include an analysis of the impacts of electromagnetic radiation and sound waves on individuals with disabilities. The significance of the City's decision cannot be overstated. The Soft Lights Foundation intends to promote the City's agreement with other cities across California and the U.S. through our supporters and we will be asking each city in turn to follow Davis' lead.

The next step in the process is to prepare for the actual self-evaluation and analysis, which the City has noted will be complete at the end of 2027. While the ADA Self-Evaluation is an ongoing and continuing process that has no end, it is helpful to have a definitive goal for an initial baseline analysis regarding electromagnetic radiation and sound waves and their impacts on individuals with neurological disabilities.

We appreciate the City's offer to ensure that Mr. Baker and the Soft Lights Foundation are an integral part of the development of the ADA Self-Evaluation strategy, and we intend to fully participate.

I. U.S. Food and Drug Administration

21 U.S.C. Chapter 9, Subchapter V, Part C defines electronic product radiation as any ionizing or non-ionizing electromagnetic or particulate radiation or any sonic, infrasonic, or ultrasonic wave, which is emitted from an electronic product. 21 U.S. Code § 360ii details the requirements for the Food and Drug Administration (FDA) for development of a Program of Control for electronic product radiation.

The FDA has failed to comply with 21 U.S. Code § 360ii for many electronic products, including products that use Light Emitting Diodes (LED), electronic sirens, and products that emit Radio Frequency (RF) electromagnetic radiation. Millions of individuals have sensitivities to the waves emitted by these products, and for individuals with disabilities, these waves can create invisible discriminatory barriers.

The City has now agreed to analyze the impacts of these waves on individuals with disabilities and to develop policies that ensure that individuals with disabilities have full and equal access to City services, programs, services, and activities. We recommend that the City contact the FDA to request collaboration with the City's effort.

II. U.S. Access Board

The U.S. Access Board is an independent government agency whose mandate is to promote access design for individuals with disabilities. The Access Board has published guidelines for flashing images on websites but has ignored the impacts of flashing lights from technology such as Rectangular Rapid Flashing Beacons (RRFB) and flashing lights on emergency vehicles. The Access Board has also not established guidelines for products that emit RF such as smart meters or cell towers. We recommend that the City contact the Access Board to request collaboration with the City's effort to establish policies and procedures related to electronic product radiation.

III. National Highway Traffic Safety Administration

The National Highway Traffic Safety Administration (NHTSA) sets performance standards for motor vehicles. Under 21 U.S. Code § 360ii, NHTSA is required to collaborate with the FDA to test and evaluate products that emit electronic product radiation, including electronic sounds such as from backup beepers, LED headlamps, and in-car WiFi. Despite this requirement, NHTSA and the FDA have not collaborated on any of these products.

Of particular importance is the NHTSA "steady-burning" requirement for auxiliary lamps. 49 C.F.R. 571.108(S6.2.1) states that auxiliary lamps cannot impair the effectiveness of federally required lighting equipment. NHTSA has consistently held the position that flashing lights impair vision and create a safety risk, and through the issuance of multiple Letters of Interpretation has repeatedly stated that any auxiliary warning lamp must be "steady-burning", including for police, fire, ambulances, and utility vehicles. However, because NHTSA does not enforce the steady-burning requirement, LED flashing lights have proliferated, creating new discriminatory barriers for individuals who cannot neurologically process the high-intensity, digitally pulsing light. The City's ADA Self-Evaluation must address its mandate to ensure that its vehicles comply with NHTSA regulations and ADA mandates for accessibility.

Aftermarket replaceable bulb LED headlamps are strictly prohibited by NHTSA, and yet this technology has proliferated, also due to lack of enforcement. The City may own or have agreements with third parties whose vehicles may have been outfitted with unlawful LED headlamps. The ADA Self-Evaluation must address the impacts of high-intensity, blue-rich lighting from LED headlamps on individuals such as those diagnosed with autism, migraine, or epilepsy.

IV. Federal Highway Administration

The FHWA has approved the use of LED flashing lights in traffic control devices in the Manual of Uniform Traffic Control Devices (MUTCD). However, the FHWA has failed to collaborate with the FDA to ensure the safety of these devices and to set performance standards, and the FHWA has failed to assess the impacts of flashing lights on individuals with disabilities. The City must therefore address the discriminatory impacts of flashing lights from traffic control devices, such as RRFBs and flashing lights on stop signs, on individuals with disabilities.

V. Electronic Product Radiation

There is a huge number of products that emit electronic product radiation:

- RF: Cell towers, WiFi routers, smart meters, security systems, and more.
- LED: Streetlights, digital displays, vehicle flashing lights, street signals, traffic control devices, floodlights, strip lighting, appliance indicator lights, bicycle and e-scooter headlamps and taillamps, stadium lighting, and more.
- Sonic: Backup beepers, emergency vehicle sirens, fire alarms in schools, and more.

Each of these products has the potential to create a discriminatory barrier for an individual who may have EMR Syndrome, epilepsy, lupus, autism, PTSD, migraine other disability. Therefore, the City must analyze and develop policies for each product or category of products. This is a large task and we recommend that the City collaborate with other cities, the federal government, and universities to perform this analysis and to develop policies as part of an ongoing and continuous process, rather than as a discrete, one-time event.

VI. Metrics

The radiological metric for intensity from electromagnetic radiation is called radiance and is measured in Watts per square meter per steradian. For lighting products, a specialized version of radiance accounting for the sensitivity of the human eye to visible light is called luminance and is measured in candela per square meter. The intensity of sonic radiation is measured in Watts per square centimeter.

While there are some regulations for a handful of products (e.g. microwave ovens, lasers, x-ray machines), there are not nearly enough regulations covering the vast number of products that exist, leaving individuals with disabilities at risk of discrimination. For LED lights in particular, there is a complete lack of limits on luminance which has led to a vast number of products used by the City which overwhelm individuals with disabilities who cannot neurologically tolerate such high luminance. Restrictions on luminance and radiance must be established as a result of the ADA Self-Evaluation process.

Also for lighting, the spectral power distribution is critical. Blue-rich LED light can trigger migraines, anxiety, and suicidal ideations. Digital flicker can be debilitating for certain individuals with disabilities. The City must develop policies setting limits that ensure that lighting does not limit accessibility for individuals with disabilities.

VII. ADA Self-Evaluation Process

The ADA Self-Evaluation process for electronic product radiation will be a significant undertaking. It will require receiving public comment and coordinating with subject matter experts. The City is fortunate to have the University of California, Davis as part of the community and we recommend that the City reach out to UC Davis to inquire about collaboration with microbiologists, neurologists, physicists and others to help with this analysis.

The Soft Lights Foundation has collected over 500 LED Incident Reports which have been submitted to the FDA as public comment. These LED Incident Reports can be used to analyze the types of reactions individuals have to LED light.

VIII. ADA Accommodation

Currently, the City has no established baseline for electronic product radiation and therefore cannot meet the needs of individuals with disabilities in all of the City's services, programs, and activities. For now, each individual must make a request for ADA accommodation, and the City is then obligated to conduct an individualized, fact-specific investigation to determine what is reasonable accommodation for that individual under *Duvall v. County of Kitsap,* 260 F.3d 1124 (2001). If the investigation determines that the individual must not be exposed to LED flashing lights, then the City may be required to address this issue city-wide, and not just at a particular location.

The ADA Self-Evaluation process will provide the City with the scientific evidence, public comments, and other information to modify its policies, practices, and procedures to ensure that all individuals have full and equal access to City services, programs, and activities, rather than having to perform a resource-intensive individualized, fact-specific investigation for each individual separately.

IX. Conclusion

By agreeing to conduct the mandatory ADA Self-Evaluation under 28 C.F.R. 35.105, the City has established itself as the historical pioneer for ensuring disability rights related to electronic product radiation. We look forward to being an integral part of this process.

Sincerely,

Mark Baker
Individual Yolo County Resident
mbaker@moonlightadvocacy.org

Mark Baker
President, Soft Lights Foundation
mbaker@softlights.org

cc: Daryel Dunston, City Manager (moweb@cityofdavis.org)
City Council (BArcher@cityofdavis.org)