



420 10th Street, SE Washington, DC 20003

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Abdullahi Mohamed email: [abdullahi.mohamed@dc.gov](mailto:abdullahi.mohamed@dc.gov)  
Supervisory Civil Engineer  
Infrastructure Project Management Division  
District Department of Transportation  
55 M Street SE, Suite 400  
Washington, DC 20003

Subject: New streetlights on Pennsylvania Avenue, SE

Dear Mr. Mohamed:

Capitol Hill Restoration Society (CHRS) is the largest civic organization on Capitol Hill. Since 1955 CHRS has worked to protect the Capitol Hill community, including the environment. We commend and support DDOT for its forward-looking plans for new streetlights on Pennsylvania Avenue, SE.

The keys to street lighting that promotes public health and safety and preserves dark skies are:

- Lighting in the warm-white range (measured in correlated color temperature (CCT) of 3,000 Kelvins (K) or less),
- shielding lights to prevent light trespass, and
- illumination levels (expressed in lumens) adequate to provide sufficient light.

DDOT's new streetlights on Pennsylvania Avenue, SE will meet all of these standards.

Warm-white streetlights at 3,000 K produce much lower amounts of short wavelength light than blue-white light, at 4000 K or higher. Blue-white light with its short wavelengths scatters within the human eye, causing glare and also

scatters in the atmosphere, increasing sky-glow. For these reasons, 3000 K LEDs are the standard choice for outdoor lighting and are in use by dozens of municipalities – representing millions of consumers – both in the United States and around the world: **Arizona:** Phoenix, Tucson, **California:** Los Angeles, Riverside, San Diego, San Francisco; **Colorado:** Denver; **Hawaii:** Honolulu; **Illinois:** Chicago; **Maine:** Portland. DDOT is part of this group of forward-thinking cities.

DDOT's new streetlights will be shielded, so that light will be directed toward the ground, and no light will spill upward. DDOT's guidelines note that full-cut off's advantages include "perceived reduction in sky-glow, excellent light control at property line, limits spill light [light trespass], and reduces perceived glare."

The illumination level, measured in lumens, will be 2.0 foot candles (fc) (a unit of light intensity). We understand that while the current illumination level on Pennsylvania Avenue is 2.15 fc, DDOT's plans for 2.0 fc will produce more uniform illumination without dark spots.

Again, we commend DDOT's decision to use the best science to improve streetlights on Pennsylvania Avenue, SE.

Sincerely,

A handwritten signature in black ink, appearing to read "Elizabeth Nelson". The signature is fluid and cursive, with a large initial "E" and "N".

Elizabeth Nelson, President