



## LIGHT AIR NOISE (LAN) Bylaw Committee

April 30, 2019

Conference Room A, Town Hall

7:00 - 9:00 PM

(These are not official minutes of the LAN as there was no quorum. These notes reflect the conversation of members who met that evening. Margaret Scarsdale was in Executive Session of the Board of Selectmen for the better part of the meeting, joining the group for the last fifteen minutes.)

The meeting began at 7:10 PM

Present: Tim Brothers, Vince Premus, Harvey Serreze, Tony Beattie, Sherrill Rosoff, Margaret Scarsdale

Harvey Serreze opened the meeting complimenting Tim on his efforts creating a lighting bylaw draft. Tim has extensively researched lighting bylaws from a number of towns around the state and has incorporated language from them into this draft - as well as his general knowledge about the effects of LED blue light on public health, safety, impact on natural ecosystems, and loss of our night skies. There is a great deal of specific detail in the bylaw, as a consequence of Tim's thoroughness. Harvey questioned whether there was too much detail such that town citizens will not be able to absorb it all; as a follow on to that comment, he wondered whether some parts of the draft would be better as an ordinance than as a bylaw. Would it be possible to create both from the draft?

Vince Premus questioned whether an ordinance or regulation would be weaker in its impact than a bylaw?

Harvey Serreze asked whether, in breaking the draft into two - a bylaw and an ordinance or town regulation - that the Building Inspector would then be responsible for the ordinance/regulation part?

Tim Brothers responded by saying that the Building Inspector is responsible for following the State's Residential and Commercial Building Codes and, while the Building Codes are beginning to incorporate more lighting requirements, the Codes are not as stringent as the bylaw we're considering. Until Building Codes are modified to reflect current understanding of lighting practices addressing light pollution, we are better off creating our own bylaw. Further, Tim noted that towns which were early adopters of lighting bylaws and changed their municipal lighting for LED's found they had to re-do their lighting at considerable municipal

expense once it became apparent that the LED's they initially invested in (with State subsidies) were not the color temperature safe for people and wildlife. This is the scenario Tim wants Pepperell to avoid. He noted the blue LED lighting (between 4000 - 5000 K) at the fire department station on Park Street as a good example of new lighting which will have to be replaced.

The general consensus of the group was that we did not want this lighting bylaw to be part of the town's zoning bylaws because that would then mean creating zones within town that would be specifically regulated: e.g. Main Street would be one zoning district and so on.

Tim also noted that a lighting audit done by the state (in order for a town to receive state assistance) kicks off the process of removing existing municipal lighting for higher efficiency options. Pepperell is part of the Central Mass. district (located in Worcester) and it is this state office that sub-contracts the audits; the auditing companies then recommend the cheapest lighting available which may not be what we want. So, if we have a bylaw in place that addresses lighting specifications, we can control our lighting options.

The conversation turned to town meeting and thinking about possible questions from residents. Tim suggested that a sky map of the town be part of the presentation; Vince Premus suggested that cost savings should be part of the discussion. Tim noted that the town budget has a \$45000 line item for street lighting costs. Tim said he had talked with the highway department; he stated that there are some 20 different National Grid bills and wondered whether the town knew, with certainty, its actual electrical costs.

It would be important to talk with the police department as that department may believe that higher lumens increases public safety - when anecdotal evidence suggests otherwise (extreme glare can reduce visual ability).

Vince Premus stated that he thought the lighting draft was in pretty good shape; the more he read it, the less complicated it became. So, he's concluded that the bylaw "is what it is" and that it is up to the committee to help the public and town boards understand it. He questioned whether, at the October 7th town meeting, we present one or two bylaws? Sherrill Rosoff suggested that that decision may depend on the number of town warrants and other business on the night's agenda, and that the town administrator can advise us as we get closer to town meeting.

We can also use town cable as a means to inform and educate residents about both the noise and lighting bylaws.

Two further questions were posed for discussion: the health impacts of blue light and to what extent the bylaw will impact the town's light pollution levels when towns around us, such as Nashua, Westford, and Littleton, are contributing significantly to the area's loss of dark skies. Tim responded that, while not wanting to get into the physics of light dispersal (light domes), in the aggregate the lights in Pepperell do have an effect, not just on night skies but wildlife, too, because light levels are happening at the wrong time. If everyone in Pepperell turned off their exterior lights at night, we'd see the Milky Way. So, while we may not want to get into a discussion about what part of the loss of night skies is due to Pepperell, and what part due to neighboring towns, the consensus, as expressed by Harvey Serreze, is that the answer is probably both but that we should do our part to mitigate the loss of night skies - and even become a model for other towns.

Finally, Vince perms raised concerns about the health impacts mentioned in the bylaw and whether the data is unequivocally certain that blue light causes the health problems mentioned. Tim responded that he wouldn't make health impacts as the #1 reason for

implementing the bylaw but that it is worth noting given the array of health organizations (such as the American Medical Association) that has referenced the health side effects and impacts on quality of life (e.g., sleeping).

The meeting ended with a review of which town committees and organizations either have or will have a copy of the noise bylaw for review.

The meeting ended at 8:50 PM.