March 27, 2015

Additional Thoughts on Proposed Zoning

Honorable Members of the Board of Aldermen:

In the time remaining before your comment period ends, I would like to raise some questions about the way the proposed new zoning ordinance's contemplated interplay between Somerville's built environment, the natural world, and the city's energy and environmental future:

1) Open space, gardening, "urban agriculture"

Somerville is supposedly a city which values "urban agriculture," yet the new zoning will allow even greater density than presently exists in the region's densest city. The shrinking of setbacks and allowance of more building height in even the most protected residential neighborhoods will transform us, over time, into a city without yards. Rising heights, from closer-together, denser buildings (no FAR) will deepen our shadows. Lack of arable land and natural light will render us virtually without gardens. This will be a terrible loss, especially given our paucity of public open space.

What thought was given to the conditions necessary for growing plant life – including trees – in Somerville? Were shadow studies conducted, to determine how much light will be lost, at maximum allowed build outs, on public and private land – especially private homes abutting districts which allow substantial height? Has anyone calculated the amount of unpaved land that will be left, at maximum build out?

2) Water use, drainage, runoff, flooding

Flooding and improper drainage have long been problems in Somerville. There seems to be no enforcement of current zoning restrictions on paving private property, or of illicit connections to city sewers and storm drains. Additional building and paving have worsened flooding of adjacent basements, and sometimes introduced such flooding. The overwhelming of storm drains during our increasingly heavy rain events floods streets, and has caused considerable damage to private property. It is widely understood that a storm surge at high tide – such as that which New York experienced with Hurricane Sandy – would cause considerable flooding along the Mystic River.

What modeling has been done of storm surge scenarios along the Mystic? How does zoning in the potential flood zone area reflect planning for flood resiliency? What studies have been made of the capacity of the city's sewers and storm drains to carry the

additional water usage and surface runoff, at different build out scenarios – including maximum build out? Has there been any though of where residents will put snow, as the area of privately owned opened land diminishes?

3) Energy Needs/ Renewables

There is a significant missed opportunity here to set out clearly the requirements for the permitting of solar panels and other renewable energy infrastructure, to replace the slow and unpredictable process that residents complain of now. New roofs should be required to have solar PV panels, to be "green" roofs (built to support soil and plant life), as the City of Paris is now requiring. At minimum, new roofs should be made of white roofing materials, to counter "urban heat island" effect. The use of geothermal heating and cooling, and other accepted technologies, should be a condition of certain developments. The provision of electric car charging stations should be mandatory whenever developers are providing new parking; there should also be requirements for providing charging stations when municipal facilities are constructed.

These comments are more suggestive than exhaustive, but there are sources, I'm sure, for bold "best practices" when it comes to zoning codes that adapt to emerging conditions.

Thanks once again for considering my comments,

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