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Sent: Friday, October 30, 2020 3:01 PM
To: Ivy Pool; Jeremy Saland; Lisa Katz; Lauren Levin; Jason Lichtenthal
Cc: Jill Shapiro; Sabrina Charney Hull; Erik Nicolaysen; Tony Oliveri; murphbd1102@gmail.com; 'Terence Hoey'; iaeed@aol.com; peiden@chappaquafd.org; gbologna@chappaquafd.org
Subject: Chappaqua Fire Department Response to Form-Based Code

Please feel free to contact me with any questions.

Russell Maitland

Chief of Department

CHAPPAQUA FIRE DEPARTMENT

P.O. BOX 454, CHAPPAQUA, NEW YORK 10514

Russell Maitland, Chief
Paul Eiden, 1st Assistant Chief
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J.I.D. Bristol Engine Co.
Chappaqua Fire Patrol Co.
Chappaqua Independent Fire Co

October 30, 2020

Ms. Ivy Pool
Supervisor
Town of New Castle
200 South Greeley Avenue
Chappaqua, NY 10514

Dear Supervisor Pool,

Thank you for the opportunity to present areas of concern held by the Chappaqua Fire Department (CFD) concerning the proposed Form-Based Code (FBC) legislation. By nature, the FBC is hypothetical and vague and as such does not allow the fire department to comment on specifics regarding construction and or development plans. With that said, we do have concerns with broad-based issues and timelines.

There are four immediate major areas of concern impacting the CFD which include Call Volume, Call Type, Apparatus Needs, and Staffing.

Currently, the Chappaqua Fire Department is averaging approximately 500 calls per year which represent significant increases over the last five years. This is based on the increase in weather-related emergencies that continue to occur. The obvious question is what we expect future development to add to our call volume. Many factors go into these projections. For example, we expected the development of the Chappaqua Crossing Property at 480 Bedford Rd to increase call volume slightly by 1-2%. Yet, over the past two years, we have responded to 45 emergency calls at the property yielding a call increase of 9% annually. Much of this can be attributed to poor oversight by previous town officials and a flawed inspection process. As we have discussed this leads us to question what impact future projects will bring and the validity of forecasts and projections presented to us for planning.

Call type expectations are a key data point that will have a potential impact on fire department operations. Will the types of incidents become more serious, require additional training of firefighters, generate additional nuisance calls (elevator call button, smoke from cooking) or will there be an increase in gas, electric, and fire emergencies?

Related to call type and call volume is training. What potential training needs will arise from an increase in density, building type, and building height. Concerns include the funding of training, the availability of training, the location of training, the availability of members for training, and the time to conduct training.

Firehouse (914) 238-4205

Chief's Office (914) 238-0819

Will our current apparatus require different hose set up and/or equipment? Will there be a need for a different type of apparatus to service parking structures and other configurations that we are not currently presented with. There are too many “unknowns” of building size, density, building configuration, etc. to make these determinations without construction documents. We operate on a 20-year replacement plan for each piece of fire apparatus with a replacement due within the next two years. Planning the purchase of new fire apparatus is a long extensive process that takes approximately 2 years from the development of a plan to delivery. Fire apparatus costs are between \$700,000-\$1,500,000 for each piece (based on type) and require that funds be put away annually to fund these purchases without causing a significant tax increase in any one year. Should it be determined that additional apparatus is warranted, how will it be funded and where will it be kept as the current firehouse does not avail us the opportunity to store more and larger equipment,

Staffing is directly related to the three previously discussed items and is also the one item that we have the most control over. Should call volume and type remain relatively similar our current staffing levels should be sufficient (we always can use more). The only major variable is the willingness of the current firefighters to continue to volunteer their time. However, it is a well-established Standard (by NFPA 1720 and past practice) that additional manpower will be required to fight fires and mitigate emergencies in multi-story buildings. A key component of successfully responding to emergencies in multi-story buildings is having the required manpower in the first few minutes of arrival relying on mutual aid may not be an adequate solution.

Additionally, as in most development, we strive to ensure that we have an adequate water supply for the required fire flows needed to extinguish a fire based on square feet and number of stories (utilizing a generic formula of Gallons per Minute= length x width/3 for each floor). This formula is basic and higher flows may be required based on contents and percent involved in fire.

Increasing the height of buildings may change our ability to utilize a ladder truck for extinguishment or rescue. While no code or standard mandates that ladder trucks have access to structures, it is another tool in our toolbox that allows for multiple strategies and tactics to mitigate an emergency. Without specific construction and site plans it would be difficult to make assumptions or determinations. In theory, simple math can be used to determine ladder access from an aerial fire apparatus, however, it is only theoretical and is impacted by many uncontrollable factors.

When estimating the reach and placement of the aerial, consider a right triangle. The length of the hypotenuse (longest side of a triangle) equals the square root of the sum of the other two sides. When an aerial ladder is elevated, it creates the hypotenuse of a right triangle with the ground and wall of the building representing the other two sides. Knowing this, the reach of the aerial from a given location can be estimated.



$$A^2 + B^2 = C^2$$

$$C = \sqrt{C^2}$$

Again, this is theoretical and can be influenced by electric wires, trees, the width of sidewalks, parked vehicles, snow, etc.

On a side note there is mention of workforce housing in the DGEIS, that is to be made available to the town's workforce including the members of the fire department. This opportunity is somewhat misleading as does not provide the benefit that it was designed to. It is our understanding that to qualify, income levels both for single people and married couples must fall below a specific threshold. The income limits expressed as a percentage of the County's area median income (AMI), are used in calculating the rents and sales prices of workforce housing which a large portion of our membership exceeds and does not qualify for workforce housing. Therefore there is no benefit available to our workforce.

While it is not customary for the fire department to be asked for input on zoning codes, this process has made it clear, that fire department input must be obtained early on in the development of construction plans and drawings to ensure that fire department concerns are addressed.

Cordially,

Russell Maitland

Russell Maitland
Chief of Department