

June 10, 2024

## **Re: Proposed Milestone Cell Phone Towers on Fauquier County High Schools**

Dear Members of the Fauquier County School Board, Superintendent Warner, Deputy Superintendent Brill,

I am writing as a former member of the New Hampshire Commission, a formal State Commission that was convened to answer questions regarding the impacts and safety of cell towers and wireless radiation. The Commission was created through bipartisan legislation that was passed by both houses of the legislature and was signed by the Governor. To ensure that the findings of the Commission would be credible, its membership was comprised of independent subject matter experts, and I was asked to serve on the Commission because of my background in Biomedical and Radiofrequency Engineering. During my service on the Commission, I was also the Chair of the Department of Electrical & Computer Engineering at the University of New Hampshire. In my many years professionally in the field I have performed research for over twenty-five sponsors, including the Department of Justice and the National Science Foundation. Most of my research has involved the modeling and measurement of electromagnetic fields which included the siting of communications and navigation antennas. Because I am writing to comment about the placement of cell towers near schools, it is relevant to note that I am Chair of a local school board. I bring this to your attention to let you know that I am quite aware of the fiscal realities associated with running a school and fully realize that “ivory tower” fixes to problems are usually unrealistic.

I will not go into detail about the activities of the Commission except to say that we completed a year-long in depth investigation into the impacts of cell towers and wireless radiation and we published our final report that is provided [here](#). The work of the Commission and my work in sharing its findings since, is relevant to the proposed cell tower that you are now considering.

My understanding is that the proposed tower at Liberty High School would be located adjacent to the sports fields and next to Grace Miller Elementary School. In that location, the tower would be closer to both schools than the 1,640' recommended by the New Hampshire Commission. Even if it were to be found via direct measurement (the gold standard in determining actual true coverage) that there was not adequate coverage in the area, there are engineering solutions that can provide that coverage without erecting a cell tower in or near a high school and an elementary school. I make this statement as someone who has been involved in the siting of many wireless systems throughout my career.

One argument that is raised to support the siting of cell towers near schools is that they might be needed to provide communications in the event of an emergency. Without going into too much detail here, there are many reasons why cellphone communication may not be the best option in emergency situations. In [my own work with the Department of Justice](#), I was asked to look at alternative means for providing communications in emergencies because [cell towers can fail](#) during times of high usage and they can be [easily jammed](#). More robust approaches to emergency communications can be achieved through wired phone lines and the use of Wi-Fi calling inside the school buildings.

I have found while serving on the Commission and in my work since, that the industry is significantly increasing its attempts to cite cell towers on schools and near residential areas, which the Commission advises against. This practice is largely based on a business plan and not on established coverage needs. It is to be noted that telecommunications is a multi-trillion-dollar industry with a business plan and a vested interest to build out their network. This will allow them to expand into new markets, some of which will actually make communities much more vulnerable to security, hacking and other issues. Additionally, there are almost 600 [industry lobbyists](#) in Washington DC each day securing industry business objectives, including years spent creating and preempting laws that streamline their deployment goals and take away your local control in regulating their product in your own community. This is a big business landscape and one I encourage you to keep in mind as you make your decisions about cellular placements in your school district. Cellular placements, because of their many impacts, should be based on the establishment of true need and not on big business objectives.

Your legal right to deny a cell tower permit based on health and environmental concerns has not been preempted by the industry, and you should be considering these concerns. The findings of the unbiased, expert Commission in New Hampshire, along with the findings of hundreds of other independent scientists clearly show that there is harm from wireless radiation, and that harm should be considered by you as you weigh approving the proposal.

There are many other issues you may wish to consider in making your decision to approve the lease including property values, future use of school property, and aesthetics. Significant declines in property values have been reported (for example, see [these reports by realtors](#)), and this trend will likely become more pronounced as more people become aware of the Impacts of living near a cell tower.

As you consider approving another 35-year lease, I encourage you to consider all aspects of that decision, which include the health and welfare of your students and faculty, property values around the schools, and liability issues. As noted, there are other ways to provide robust cellphone coverage that do not entail excessive radiation to vulnerable populations. In the long run, the meager income from the tower will not justify the negative outcomes associated with it.

You should also be aware that industry representatives sometimes make statements that are not accurate or are misleading. One such example is their claim that wireless radiation exposure below the FCC guidelines is safe. However, those guidelines were determined based on [behavioral studies of 8 rats and 5 monkeys](#) that were performed in

the 1980s. Those studies lasted an hour or less and hence cannot account for the long-term effects of exposure that are well proven. Industry uses its political and economic power (see this [Harvard Center for Ethics report](#)) to maintain the current guidelines, because complying with safer guidelines would lower profits.

Because of my experience on the New Hampshire Commission, in addition to what I have learned since serving, I strongly encourage you to protect the children, faculty, and community by denying towers on school properties in Fauquier County. I am happy to meet with you and your colleagues, as a public service, to discuss the New Hampshire Commission findings as well as my work for the Department of Justice regarding communications security. I can also address questions you might have about cell towers and wireless technologies and better, safer ways forward for the district. Finally, I encourage you to learn as much as you can on this issue before making this important and binding decision.

Sincerely,

A handwritten signature in black ink, reading "Kent Chamberlin". The signature is written in a cursive style with a prominent flourish at the end.

[Kent Chamberlin, PhD](#)

Professor & Chair Emeritus  
Fulbright Distinguished Chair