

Jenifer K. Johnson, MMC, NCCMC
Clerk of the Board of Commissioners
Chatham County Government
County Manager's Office
12 East Street
PO Box 1089
Pittsboro, NC 27312

Dear Jenifer,

Thank you for allowing me to provide written comments prior to the July 15th meeting of the Board of Commissioners as it relates to the public hearing requested by Southern Towers BTS, LP for a special use permit for a nearby 285 ft wireless telecommunications tower on land parcel 60359, located at 4162 Bonlee Bennett Rd, in the Bear Creek Township. As I stated earlier in my email my wife Gwendolyn and I are both cancer survivors of 6 and 16 years respectively. We attended the informal community meeting held on April 13, 2024, at the Harpers Crossroads Community Center hosted by southern Towers BTS, LP. We expressed our concerns at that time since the location of the Tower is just next door to our residential location. Although we are internet and cell phone technology starved in our area, we still have reservations about the location of the tower.

As a resident of this community, I am writing to express my deep concern and strong opposition to the proposed installation of a cell phone tower near our home. Gwendolyn and I have personally battled cancer, I am particularly alarmed by the potential health risks that the proximity to such a tower may pose, **especially being more vulnerable and susceptible to the potential adverse effects of electromagnetic radiation which could increase the risk of cancer recurrence. It took a while to do some research homework on the subject to educate myself and to be able to intelligently express our concerns which are stated below with references:**

1. Health Concerns:

- **Scientific Evidence:** Several reputable studies have raised concerns about the potential health risks associated with long-term exposure to electromagnetic radiation from cell phone towers. For instance, the International Agency for Research on Cancer (IARC) has classified radiofrequency electromagnetic fields as "possibly carcinogenic to humans" (Group 2B), indicating a potential link to cancer (IARC, 2011). Moreover, a study conducted in Belo Horizonte, Brazil, reported higher cancer mortality rates among individuals living close to cell phone towers (Dode et al., 2011).
- **Vulnerability Due to Past Cancer:** As a cancer survivor, my concern is compounded by the evidence suggesting that individuals with prior health conditions may be more susceptible to the potential adverse effects of electromagnetic radiation. Research indicates that cumulative exposure to such radiation could increase the risk of cancer recurrence or other health complications (Khurana et al., 2010).

2. Community Impact:

- **Broader Health Risks:** It is crucial to consider the broader community's health, including vulnerable populations such as children and the elderly. Studies have shown that younger individuals, who absorb more microwave radiation due to their physiology, are particularly at risk (Morgan et al., 2014). The long-term implications of chronic exposure in a residential area could be profound and far-reaching.
- **Property Values and Aesthetic Concerns:** Beyond health risks, the presence of a cell tower could detract from the aesthetic value of our neighborhood and potentially lower property values. We expressed our concern at the informal meeting about property value changes. This could have economic repercussions for all residents, not just those in immediate proximity.

3. Request for Reevaluation:

- **Alternative Solutions:** I urge the Board of Commissioners, relevant authorities and stakeholders to reconsider the proposed location of this tower. Alternative sites away from residential areas should be thoroughly explored to mitigate potential health risks and address community concerns. According to the supplementary documents submitted to the County of Chatham, site selection analysis was done by Airosmith Development for Southern Towers. Nine parcels in our area were analyzed and it appears only two were interested in having the tower located on their property. Most were not interested or did not respond. **It's also stated in the search ring analysis that even this site selection does not guarantee to provide adequate service. Shouldn't it be a guarantee if you are risking the health of nearby citizens.**
- **Community Involvement:** The decision-making process should actively involve community members, particularly those most affected and we appreciate the County notices, notifications of meeting dates, and allowing the community to speak. **However, Transparent discussions and considerations of scientific evidence and public health should guide the final decision.**

In light of these significant concerns, I respectfully request that the proposed cell phone tower installation be halted and re-evaluated with due regard to the health and well-being of the community. I would ask that the **Chatham County Health Department authorities** look into the health risk and provide further research assessment before the board makes their final decision. The person we see benefiting the most is the owner of the property who will receive a hefty compensation at our potential health risk expense.

Sincerely,

Tracy L. Hanner
Retired Veterinarian
4320 Bonlee Bennett Rd

Bear Creek, NC 27207
trchanner@gmail.com
919-548-1732

References to Studies on Cancer Risks:

1. **International Agency for Research on Cancer (IARC) Classification:**
 - **Reference:** International Agency for Research on Cancer. (2011). "IARC Classifies Radiofrequency Electromagnetic Fields as Possibly Carcinogenic to Humans." Press Release No. 208.
 - **Summary:** This report classifies radiofrequency electromagnetic fields as "possibly carcinogenic to humans" (Group 2B), meaning there is some evidence of increased cancer risk, though it is not conclusive.
2. **Environmental Health Trust Review:**
 - **Reference:** Morgan, L. L., Kesari, S., & Davis, D. L. (2014). "Why children absorb more microwave radiation than adults: The consequences." *Journal of Microscopy and Ultrastructure*, 2(4), 197-204. [Link to Study](#).
 - **Summary:** This review highlights that children and adolescents are more vulnerable to microwave radiation, potentially increasing their lifetime risk of developing cancer due to longer cumulative exposure.
3. **Study on Proximity to Cell Towers:**
 - **Reference:** Khurana, V. G., Hardell, L., Everaert, J., Bortkiewicz, A., Carlberg, M., & Ahonen, M. (2010). "Epidemiological evidence for a health risk from mobile phone base stations." *International Journal of Occupational and Environmental Health*, 16(3), 263-267. [Link to Study](#).
 - **Summary:** This paper discusses epidemiological evidence suggesting that living near cell phone towers is associated with an increased risk of developing health issues, including cancer.
4. **Brazilian Study on Cancer Incidence:**
 - **Reference:** Dode, A. C., Leao, M. M. D., Tejo, F. A. F., Gomes, A. C. R., Dode, D. C., Rocha, A. C. P., & Moreira, C. W. (2011). "Mortality by neoplasia and cellular telephone base stations in the Belo Horizonte municipality, Minas Gerais state, Brazil." *Science of the Total Environment*, 409(19), 3649-3665. [Link to Study](#).
 - **Summary:** This study found a higher incidence of cancer mortality among populations living within 500 meters of cell phone base stations, suggesting a correlation between proximity to the towers and cancer risk.
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More Recent Publications on Cancer Risk and Cell Phone Towers:

Summary: This review addresses the health risks of electromagnetic fields (EMF) from mobile towers, with a particular focus on children. The authors argue for stronger protective measures to limit exposure and prevent potential long-term health issues, including cancer.

7-15-24

The Board of Commissioners,

My last bit of information is related to my parcel house location parcel 78530 in regards to the proposed tower site location on parcel 60359. The articles relate to research with Tower locations ranging from 500 meters.

Correlational Studies on Health Effects at 1,000 Feet:

1. Study on Increased Cancer Incidence Near Cell Towers (Germany, 2004):

- **Reference:** Eger, H., Hagen, K. U., Lucas, B., Vogel, P., & Voit, H. (2004). "The Influence of Being Physically Near to a Cell Phone Transmission Mast on the Incidence of Cancer." *Umwelt-Medizin-Gesellschaft*, 17(4), 326-332.
- **Summary:** This study in Naila, Germany, examined cancer incidence in residents living within 400 meters (about 1,300 feet) of a cell phone base station over a ten-year period. The findings indicated a significantly higher incidence of cancer among residents living within this range compared to those living further away. This proximity corresponds closely to the 1,000-foot distance of interest.

2. Study on Health Effects Near Base Stations (Brazil, 2011):

- **Reference:** Dode, A. C., Leao, M. M. D., Tejo, F. A. F., Gomes, A. C. R., Dode, D. C., Rocha, A. C. P., & Moreira, C. W. (2011). "Mortality by neoplasia and cellular telephone base stations in the Belo Horizonte municipality, Minas Gerais state, Brazil." *Science of the Total Environment*, 409(19), 3649-3665.
- **Summary:** This research analyzed the mortality rates from cancer among populations living within 500 meters (about 1,640 feet) of cell phone towers in Belo Horizonte, Brazil. The study found a higher mortality rate from neoplasia in individuals living within this distance, suggesting a possible correlation between proximity to cell towers and increased cancer risk.

3. Health Effects from Exposure to Cell Tower Radiation (Israel, 2004):

- **Reference:** Wolf, R., & Wolf, D. (2004). "Increased incidence of cancer near a cell-phone transmitter station." *International Journal of Cancer Prevention*, 1(2), 123-128.
- **Summary:** This study investigated the incidence of cancer among residents living near a cell phone transmitter station in Netanya, Israel. It observed an increased incidence of cancer among those

living within 350 meters (about 1,150 feet) of the station. The findings suggest a potential health risk associated with living near cell phone towers within this distance.

4. Review on Health Effects Near Mobile Phone Base Stations (Various Studies, 2018):

- **Reference:** Zothansiyama, L., & Khawlhiring, S. (2021). "Adverse health effects in people living near mobile phone base stations: A systematic review." *Environmental Research*, 204, 112404.
- **Summary:** This systematic review compiles data from various studies examining health effects in populations living near mobile phone base stations. It covers multiple studies with a focus on distances up to 500 meters (about 1,640 feet). The review reports a range of health issues, including cancer, sleep disturbances, and headaches, in individuals living near these stations.

5. Study on Health Complaints Near Mobile Phone Base Stations (India, 2017):

- **Reference:** Sivani, S., & Sudarsanam, D. (2012). "Impacts of radio-frequency electromagnetic field (RF-EMF) from cell phone towers and wireless devices on biosystem and ecosystem – A review." *Biology and Medicine*, 4(4), 202-216.
- **Summary:** This review includes a study from India where residents living within 300 meters (about 1,000 feet) of cell phone towers reported higher incidences of health complaints such as headaches, sleep disturbances, and memory loss compared to those living further away. This supports concerns about the potential adverse effects of EMR exposure at close distances.

Conclusion:

These studies suggest that living within 1,000 feet of a cell phone tower may be associated with an increased risk of adverse health effects, including cancer. While they primarily highlight correlational relationships rather than definitive causation, they provide important evidence that supports caution and further investigation into the long-term health impacts of electromagnetic radiation exposure. These studies can form a compelling basis for a protest against the placement of a cell phone tower near residential areas.

Thanks,
Tracy

EMF study articles

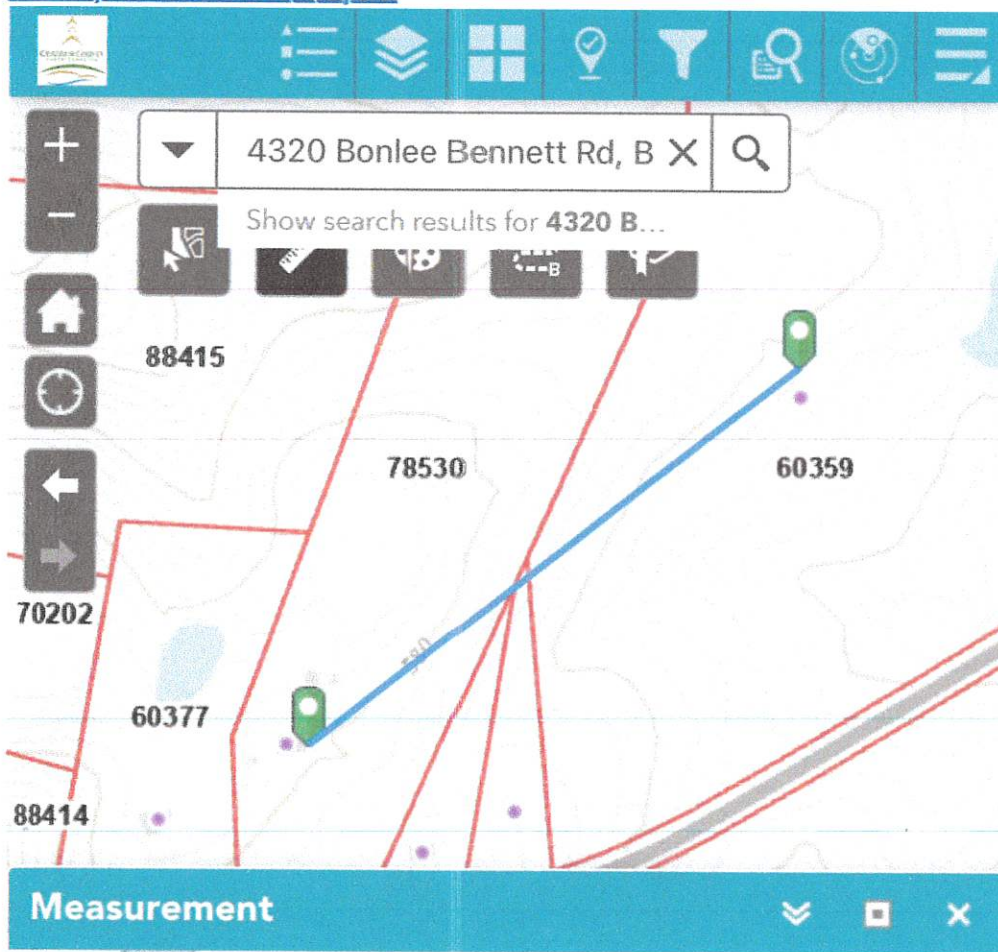
1. https://avaate.org/IMG/pdf/20041118_naila.pdf

2. <https://www.emf-portal.org/en/article/19820>

3. <http://www.apdr.info/electrocontaminacion/Documentos/In>

4. https://www.researchgate.net/profile/Alicja-Bortkiewicz-2/publication/45387389_Epidemiological_Evidence_for_a_Health_Risk_from_Mobile_Phone_Base_Stations/links/57f657c308ae91deaa5ec04b/Epidemiological-Evidence-for-a-Health-Risk-from-Mobile-Phone-Base-Stations.pdf?origin=publication_detail&tp=eyJjb250ZXh0Ijp7ImZpcnN0UGFnZSI6InB1YmxpY2F0aW9uIiwicGFnZSI6InB1YmxpY2F0aW9uRG93bmxvYWQiLCJwcmV2aW91c1BhZ2UiOiJwdWJsaWNhdGlubiJ9fQ

5. https://downloads.regulations.gov/NHTSA-2016-0126-0458/attachment_6.pdf

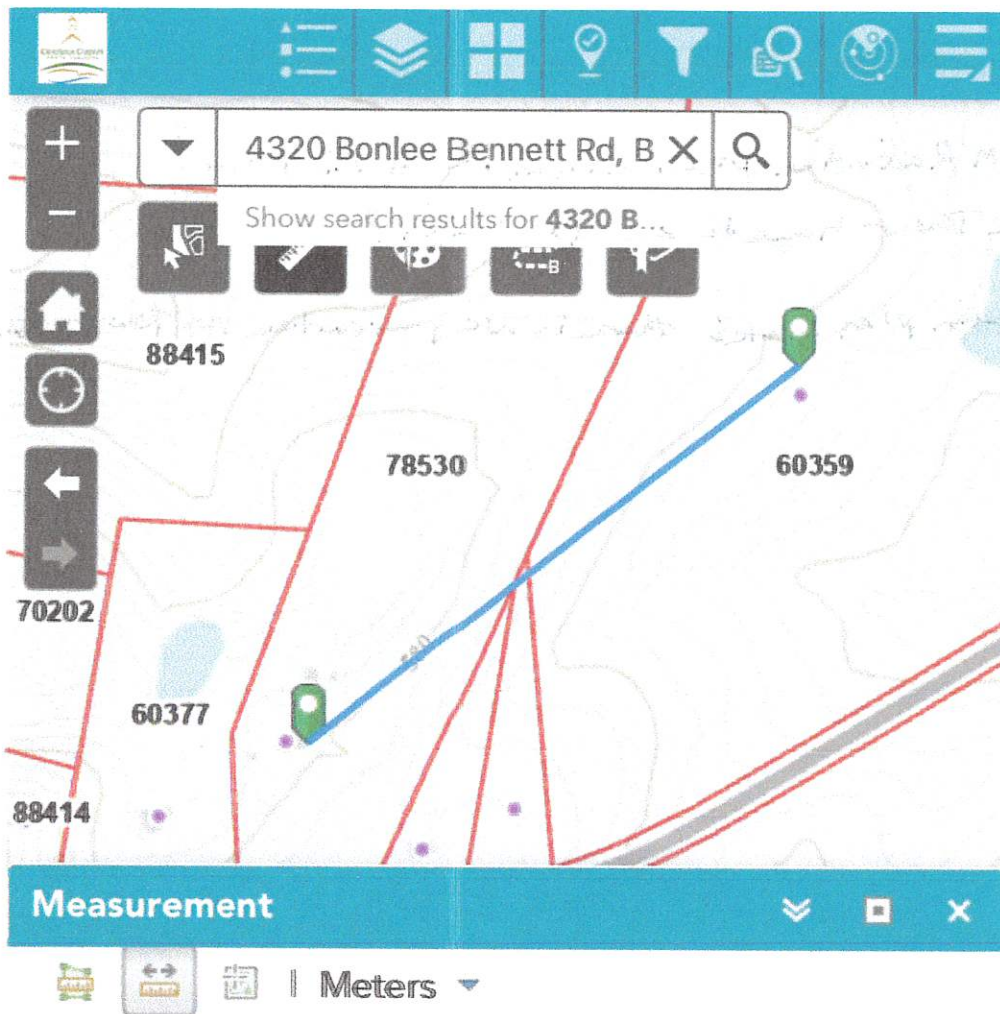


1,127.3 Feet

Clear



PLAN



Measurement Result

343.6 Meters

Clear

Dr Tracy Hanner
Retired Veterinarian
4320 Bonlee Bennett Rd
Bear Creek, NC 27207

Sent from my iPhone

Date: 7/15/2024

To: Chatham County Board of Commissioners,

For the Love of Money

The Bible says, and I quote, "For the love of money is the root of all evil." I believe this to be true in this case.

Good evening,

My name is Gwendolyn Fox Hanner. I live at 4320 Bonlee Bennett Rd, Bear Creek NC 27207. I have been at this basic address for my entire life. My daddy bought this land from James Gilbert, who was a white man, during the era of Segregation and Jim Crow laws. He didn't seem to care that black people lived nearby. At this time people seemed to care about the land and other people. We never had any trouble in our neighborhood. Everyone seemed to get along. We knew each other's names. I think the new owner of this land may not have taken into consideration how we will be affected by the location of this cellphone tower in our residential area.

My reason for speaking this evening is to let you know that I vehemently oppose the tower that has been planned for our area. I want you to take into consideration that both my husband and I and my cousin Barbara are cancer survivors. We really don't need something that will exacerbate our conditions and possibly cause new ones.

I realize that we were told that there would be a minimal amount of EM radiation and that it would cause us no harm. Any amount of radiation exposure is harmful. I have several conditions that I am battling. All of which have to do with my immune system. I am sure I don't need anymore radiation than I have already had. Knowing this about the radiation waves and our exposure to them and knowing that our property values will decline because of this tower, I urge you not to approve it. The person who will benefit monetarily by this tower lives a great distance away and will not be affected by the tower itself. I wonder if he would like a tower of this nature near near his home.

As I stated earlier, our health will be affected by this tower and our property values will decline. What will we have to leave to our children and grandchildren, but a cancer ridden area with low property values? If you look around this room, you will notice four black people who will be greatly impacted by this, health and property wise. There are no white

people in this same state here this evening. I don't want to make any accusations, but how does this look to you? How will it look to others?

In conclusion, people of color have been and continue to be disenfranchised in this country, whether it be by healthcare or land ownership, jobs etc. Don't let Chatham County, NC become the next to disenfranchise a group of people for the sake of the love of money.