

TOWN OF FAIRFAX

NOV 26 2018

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**Ordinance Recommendations, 11/29 Planning Commission**

Dear Fairfax Planning Commission:

Below you will find a comprehensive list of recommendations for our Fairfax Urgency Ordinance addressing 5G. Please consider these as you make recommendations and edits for the Town Council, and factor in the following suggestions we believe will be helpful in creating the strongest, most effective ordinance.

Attachments we refer to below include:

1. ADA/US Access Board Information
2. Property Value Reduction Information
3. Permitting Process and Measurements
4. Peter Lacques Recommendations

Below are proposed ideas/language to be included in the ordinance:

1. **Zoning and other prohibitions-** Installations in residential zoning districts, public rights of way and easements in all zones are prohibited. Note: the Mill Valley Ordinance has an unintentional loophole on public rights of way- **this needs to be addressed in all further ordinances, to make sure public rights of way and easements are also prohibited in zones where facilities are and are not permitted.** We recommend eliminating the following additional zones: CC, CL, PD. We recommend keeping CS and CH as allowable zones, but further restricting areas by parcel delineation, to be reviewed and approved by the Planning Commission. **Also eliminate the item stating “in the public right of way with the closest district being the commercial district”. (we can provide exact details of where to make these amendments in the ordinance.)**
2. **Property Values-** We have data that shows that property values can drop up to 20% when a small cell antenna is nearby, and 94% of home buyers are less interested in a property (**see attachment #2, Property Value Reduction Information**). We are recommending language be included in our Fairfax ordinance that protects property owners and property values from this effective “taking” of Fairfax residents’ property should 5G installations go forward. **Please see attachment #2 for more details and our specific recommendations.**
3. **Public Process-** Upon proposal of any wireless facilities from telecoms, the town must notify the public via website, postings, and paper mail. Include all residents within 3000 feet. During the application process, the town must provide a public comment period and schedule meetings to

**PUBLIC COMMENTS**

address issues about the proposed facility. Telecoms are required to use story poles to demonstrate actual size and physical impact. Public notice mailings should include information about the notification contents on the *outside of the envelope* such as, "Notice of Nearby Cell Antenna Proposal" to ensure the public sees and has an opportunity fully participate. See permitting process details, **Attachment #3, Permitting Process and Measurements** (composed by Frank Leahy, Mill Valley). Note: public hearings have been effective in discouraging the telecoms for Montgomery, MD and Burlington, MA.

4. **Permitting process-** The town must adopt a more rigorous permitting process. A new telecom permit application should be designed, with new components. As stated in the attached content, this equipment can often be remotely upgraded or changed via software at any time, so both permitting and monitoring process should be specific, frequent, and rigorous. Details for exactly what to include in the process can be found in the attached document from electrical engineer Frank Leahy, **Attachment #3**.
5. **Monitoring-** The town of Fairfax/San Anselmo must create a robust signal monitoring plan and use our own contractors to do the work- not industry contractors. In addition to developing a protocol on how and where to measure, the issue of how frequently measurement should be taken needs attention. Once per year is grossly inadequate. We would like to recommend including language for an ongoing real time monitoring plan that the telecoms would pay for. We need to know specifics about what kind and how strong the signals are from antennas. This requires more research, but we think is quite reasonable and feasible. If this cannot be done, then we will need monitoring at least once per month. (The attached document on permitting process recommendations written by Mill Valley electrical engineer Frank Leahy gives some guidance and suggestions on this as well, **Attachment #3**.)
6. **ADA-** Add language about the ADA, which addresses electrical sensitivity as a federally recognized disability: "The reviewing authority may NOT grant an exception if the exception itself violates federal and/or state law, including, but not limited to, the ADA", (Please see **Attachment #1, ADA/US Access Board Informaiton**.) [Note: the ADA was originally part of the revised Urgency Ordinance, then appeared to be removed by town staff edits. We are asking that the content about the ADA be replaced and addressed.]
7. **Undergrounding** – Require undergrounding for cables and accessory equipment for facilities in the public right-of-way and amend language to state that ground-level equipment **MUST** be undergrounded. Omit "if feasible" in ordinance (Fairfax has "if feasible" language). Undergrounding

must occur within 3 feet of the utility pole on which the antennas are mounted. This language should also be spelled out in the Conditions of Approval section. Before any digging occurs, a full cultural resources evaluation should be required (see above). Also, Fairfax has some undergrounding districts. ***If we restrict installation to these districts, it could create a strong disincentive for antenna installation here.*** It is our understanding that undergrounding can cost telecoms 3 to 10 times as much as installing equipment on poles.

8. **Co-location-** Co-location (the addition of multiple antennas on an existing antenna structure) rules in California provide telecoms a green light with virtually no controls or regulations by local jurisdictions unless there are changes to the physical dimensions of the structure that the new equipment will be installed on. Co-location may be difficult to fight in places where there is existing equipment, but we have identified a problem with this issue. Once equipment is installed in a town on a pole, then anything afterwards is considered co-location. We need to have language in place that does not allow this to be abused, and that ensures that telecoms do not circumvent the normal permitting processes we are planning on putting into place (such as public meetings, etc.) This is complex because co-location is protected by state law (or possibly federal), and local laws do not supersede state and federal laws, yet this is a critical element to review. We would like to discuss this with you before 11/29 if possible.
9. **Exceptions Clauses-** We have had many suggestions about exceptions and how they could work for us or against us. If we are excessively restrictive in other areas, having an exception clause can protect us from being sued by the telecoms as it provides them a doorway in. If, however, we have too broad of an exceptions clause, it creates loopholes that can be big enough for 5G antennas to get through too easily. We would like the town's legal council to craft this skillfully with the town's interest as the priority rather than the telecoms, and to not allow a major loophole for telecom entry.
10. **Fire Hazard and Other Hazard Potential-**A full fire hazard potential assessment must be conducted that includes the presence of nearby vegetation and structures. All materials in the facilities must be disclosed, including hazardous materials in any and all equipment. No poles should be overloaded such that a risk is created for life or property. There should be no co-location of equipment on such facilities. Mechanical consideration: poles and other structures must exceed general guidelines to ensure they can withstand earthquakes and storms. There are studies that show equipment killing trees and drying local vegetation through

desiccation creates further fire hazards. This needs further assessment, which we can help provide.

11. **Other Hazards-** 5G equipment is frequently installed on poles underneath or adjacent to electrical wires and equipment, which has been the cause of several recent local fires (Santa Rosa, Camp, Malibu, etc.). Additionally, as indicated above, studies show equipment killing and drying out adjacent vegetation. [Please see the additions to Chapter 20 in Fairfax, attached- Peter Lacques proposed changes to urgency ordinance 9/26, listed also in the Findings section of the ordinance, **Attachment #4, Peter Lacques Recommendations.**]
  
12. **Decorative Light Poles-** Prohibit installations on all Decorative Light Poles. In Fairfax, we have asked for this prohibition. (To protect our street lamps from a 50% height increase, amend by adding, "The downtown decorative street light poles are exempt from this section.")
  
13. **Viewsheds and Aesthetics Considerations-**Viewsheds and general aesthetics need to be considered via the design review process for all applications with full public noticing and involvement. Consideration should include historic preservation considerations and the general aesthetic character of our towns. Facilities must not disrupt or alter the aesthetic beauty or historic character of the town. This should be subject to review by the Town Planning Commission and approved by the Town Council.
  
14. **Schools and Child Care Centers-** Similarly, we wish to restrict a 1000 foot buffer around schools, child care centers, and elder facilities from consideration of 5G installation. As with the item above, this can be accomplished through our zoning restrictions.

Related to this: are there any opportunities for potential compensation from the telecoms to pay for relocating children from schools impacted by 5G radiation? There may be issues around inter-district transfer limitations and potentially forcing kids into private schools which are very expensive. If this were to happen, who would pay? And, what about lost revenue for schools that lose children due to transfers to other schools? This is a very real possibility we believe needs to be addressed.

15. **Health Care Facilities** – We recommend that the Town of Fairfax require a 1000-foot buffer around medical care facilities for 5G small cell and other similar wireless antennas to ensure safety of recovering patients. [Note: We are recommending only certain planning zones be eligible for 5G antennas. Within those zones, there will be further restrictions. This item may best be addressed in our zoning section without mentioning Care

Meridian in Fairfax, our only health care facility (head injury care facility). This may be a wise strategy as mentioning health is, of course, a red flag for telecoms.]

16. **Establishing setbacks and antenna intervals-** We know each antenna can transmit up to at least 1 GB/sec of data at 3000 feet. Even with prohibition in the residential areas for antennas, this would impact a large swath of town, both residential and commercial. With setbacks and antenna intervals, as well as limiting zoning and strategic placing, we can control where antennas are placed. We want to minimize exposure to people living in mixed use zones and on the edge of commercial zones. Our strategy is to eliminate most of the zones, all with residential, except for two commercial zones. Within those zones we are recommending further restricting locations on specific parcels to protect the most vulnerable populations, among others (children and elderly, etc.)
  
17. **Endangered/Threatened Species, ESA-** Fairfax is home to several endangered and threatened species. Here in Fairfax we have spotted owls, and in our creeks we have threatened steelhead and other listed species. We need to review the Natural Resources Database to see what else we have here. There are increasing numbers of studies emerging that focus on insect and other wildlife impacts from this technology. We recently learned that there may be a state or federal law prohibiting local jurisdictions from using environmental impacts to stop 5G installations, but we are not sure if this is the case. Using provisions in the Endangered Species Act could certainly help, especially with regards to creating a rationale for buffers. More research is needed here, and we can help in this area.
  
18. **Trees-** The town of Fairfax has a tree ordinance that requires a permitting process to remove trees. Fairfax has a committee that reviews applications and make recommendations for approval/disapproval. There are studies that show cell tower radiation kills trees. The study we recently reviewed was focused on cell towers installed in trees, but any trees in close proximity would have similar effects. Telecoms would need to do a tree analysis within a certain number of feet of antennas and if there is a risk of killing trees, the telecoms should be required to apply for a tree removal permit if equipment is installed within 100 feet of trees.
  
19. **Cultural Resources-** Under CEQA there needs to be full assessment of cultural resources, including artifacts buried under the ground. We are asking for undergrounding of equipment and want to be assured that there are no cultural artifacts where telecoms may want to dig, and if there are, the proper process is followed (archeologists on site, etc.).

20. **Cumulative Impact Assessment-** CEQA requires cumulative impact assessments. Despite the FCC and 1996 FTA's prohibition on health as a rationale for prohibiting installations, there may be other cumulative impacts that need to be assessed, such as visual or aesthetic and environmental impacts. We have not come up with other specific examples, but perhaps there could be language included about health if deemed useful.
  
21. **Conflicts with Other Plans and Regulations-** CEQA has a category of "Conflict with any land use plan, policy or regulation". We have outlined our undergrounding districts and our tree ordinance here. These are two that we can think of, please investigate to see if there are more.
  
22. **Future Damages-** Regarding health, we want to investigate if there is anything in the law that allows corporations to be held liable for future damages (could a coal burning plant be liable for future damage to air quality or health of neighbors, etc.?) We are curious if something like that could be applied here.
  
23. **Noise Assessment/Evaluation-** There should be no equipment that generates noise whatsoever. Ordinance needs to have language that specifies details around noise and abatement, including containment if there are fans or other noisy components.

## Linda Neal

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**From:** Roberta Anthes <robertaanthes@aol.com>  
**Sent:** Tuesday, November 27, 2018 5:25 PM  
**To:** Linda Neal; Michele Gardner  
**Subject:** Fwd: Letter to the Planning Commission on 5G Ordinance  
**Attachments:** SA Ordinance Jewels.docx

Please send my letter and attachment to the Planning Commission.

Thank you!  
Roberta

-----Original Message-----

From: Roberta Anthes <robertaanthes@aol.com>  
To: lneal <lneal@townoffairfax.org>; mgardner <mgardner@townoffairfax.org>  
Sent: Tue, Nov 27, 2018 12:59 pm  
Subject: Letter to the Planning Commission on 5G Ordinance

Dear Commissioners,

Thank you for considering some ideas in this letter. I am very grateful that you are willing to hear out the public on certain amendments to our Urgency Ordinance. You'll be receiving a long list from our group, and I'd like to add few considerations.

Please think about adding a clause that requires annual re-certification at the expense of the applicant. This is not a prohibitive requirement, and it's not gratuitously burdensome. It's wise to re-certify equipment on an annual basis to ensure safety and efficiency.

And please consider some of the attached passages from the San Anselmo ordinance. They have a good passage that defines their town's values. I think it can be even stronger and, of course, I editorialize in blue text:). We have one too, but I feel ours can be strengthened as well.

They also have a very robust chapter on exceptions. Their requirements are spelled out clearly and there are lots of them. Our language is far too vague and the process not challenging enough. They also allow for the town to hire an expert to review and rebut an exception request at the expense of the applicant. And they allow any individual or entity to appeal any approval. These are tough requirements that are also not prohibitive.

And, of course, as I have said before, we should add the Americans With Disabilities Act to challenge the preemptive nature of the FTA.

Thank you for considering all this. I hope you can help our Town Council make our ordinance as strong as possible.

Gratefully,

Roberta Anthes  
2 Snowden Lane

Fairfax  
415-721-0906



## Some Good Features of San Anselmo's Ordinance

**PURPOSE AND INTENT (A)** In accordance with San Anselmo Municipal Code ("SAMC") Title 10, Chapter 3, Article 28, the Town of San Anselmo intends this Town Council Policy No. 6-1 Part 1 ("Part 1") to establish reasonable, uniform and comprehensive standards and procedures for wireless facilities deployment, construction, installation, collocation, modification, operation, relocation and removal within the Town's territorial boundaries, consistent with and to the extent permitted under federal and California state law. The standards and procedures contained in this Part 1 are intended to, and should be applied to, protect and promote public health, safety and welfare, and also balance the benefits that flow from robust, advanced wireless services with the Town's local values, which include without limitation the natural, residential and unique aesthetic character of the Town, its neighborhoods and community. The purpose of the Policy is also to protect the citizens and visitors of San Anselmo from adverse health effects associated with exposure to non-ionizing electromagnetic radiation [that exceed maximum permissible exposure levels by raising public awareness and ensuring compliance with all applicable laws.] This Part 1 is also intended to reflect and promote the community interest in public notice and an opportunity to be heard to (1) ensure that the balance between public and private interest is maintained on a case-by-case basis; (2) protect the Town's visual character from potential adverse impacts or visual blight created or exacerbated by telecommunications infrastructure; (3) protect and preserve the Town's environmental resources; and (4) promote access to high-quality, advanced telecommunication services for the Town's residents, businesses and visitors.

Omit the text in red. Fairfax should have the right to define its values any way it sees fit. We're discussing values here, not requirements. And our values should include protecting people from radiation, period.

**(C) Limited Exceptions** for Personal Wireless Service Facilities. In the event that an applicant claims that strict compliance with the site location guidelines in Section IX (Site Location Guidelines) or the development standards in Section X (Development Standards) would effectively prohibit

the applicant's ability to provide personal wireless services, the Planning Commission may grant a limited exception from such requirements to the extent necessary to prevent an effective prohibition when the Planning Commission finds all of the following:

(1) the proposed wireless facility qualifies as a "personal wireless service facility" as defined in 47 U.S.C. § 332(c)(7)(C)(ii), as may be amended or superseded; and

(2) the applicant has provided the Planning Commission with a reasonable and clearly defined technical service objective to be achieved by the proposed wireless facility; and

(3) the applicant has provided the Planning Commission with a written statement that contains a detailed and fact-specific explanation as to why the proposed wireless facility cannot be deployed in compliance with the applicable provisions in this Part 1, the San Anselmo Municipal Code, the General Plan and/or any specific plan; and

(4) the applicant has provided the Planning Commission with a meaningful comparative analysis with the factual reasons why all alternative locations and/or designs identified in the administrative record (whether suggested by the applicant, the Town, public comments or any other source) are not technically feasible or potentially available to reasonably achieve the applicant's reasonable and clearly defined technical service objective to be achieved by the proposed wireless facility; and

(5) the applicant has demonstrated to the Planning Commission that the proposed location and design is the least non-compliant configuration that will reasonably achieve the applicant's reasonable and clearly defined technical service objective to be achieved by the proposed wireless facility, which includes without limitation a meaningful comparative analysis into multiple smaller or less intrusive wireless facilities dispersed throughout the intended service area.

The Town shall have the right to hire an independent consultant, at the applicant's expense, to evaluate the issues raised by the exception request

and shall have the right to submit rebuttal evidence to refute the applicant's claim.

**D. Appeals.** Any interested person or entity may appeal any decision by the approval authority in accordance with the standards and procedures in SAMC, Title 1, Chapter 4, except as modified in this Section VII(D). On the next available meeting date after the appeal period lapses, or as soon as reasonably feasible thereafter, the appellate body shall hold a de novo public hearing to consider and act on the application in accordance with the applicable provisions in the General Plan, any applicable specific plan and all applicable provisions in the San Anselmo Municipal Code. Appeals from an approval will not be permitted to the extent that the appeal is based on environmental effects from RF emissions that comply with all applicable FCC regulations. [and also comply with conditions set forth in the Americans With Disabilities Act.]

This is a good place to add the ADA. See red text. We are not talking about health effects when we talk about the ADA – we’re talking about compliance with another federal law. This clause is not prohibitive. It only disallows any facility that harms an afflicted person – presumably one who came forth during the public hearing and presented medical documentation of his/her condition.

Yes, this is dicey. But be brave☺! Let these two federal laws stand in conflict and let our intent be known. At worst, it will generate a challenge. At best, telecoms will comply or be dissuaded.

5G Free Marin  
Fairfax Task Force

City of Fairfax  
Town Council  
Planning Commission

Dear Council and Commission,

We thank you all for the attention you have given to the 5G rollout/FCC rules issue over the past weeks. As we've highlighted previously, we have a large local group of Fairfaxians that have been activated and doing outreach, research and of course trying to find effective strategies to protect the citizens of Fairfax in a meaningful way given the challenges of Washington D.C. at this time. As well, we've joined forces with similar individuals and groups in other Marin towns, and towns beyond Marin. (Sebastopol has invoked a moratorium) There is a foment forming and the County representatives are also beginning to come up to speed on this issue.

Our group meets here locally on a weekly basis, and we have updated our strategy and want to share that with you all for consideration. We have reviewed Title 13 and the original Title 19 in our town code and we believe these as-written already provide some solid protections. The original Title 19 includes the de facto PGE smart-meter ban, and other important details. We believe the best strategy for Fairfax moving forward, is to leave 13 and 19 as-is, and to create a new Title 20 that focuses on the "small"-cell-tower (not actually small) and that the language address the new matters and future expansions on 5G (6G 100G, etc).

**We would ask you to review closely the provisions in Title 13, and we believe if you review the old Title 19, you would quickly ascertain that the labor involved to graft all of that language carefully in to a new hybrid of old and new is cumbersome and adds time and work. This way, a new Title 20 can truly focus on the various strategies to be effective to protect us with what is current at this time.**

We believe that the FCC under Mr. Trump filled with ex-Telecom Lobbyists have overreached their authority and some day this may end up at the SCOTUS. For the shorter term, until County, State and other actions form, we want to re-iterate that we seek the most robust approach to really push back in our Fairfax ordinance. We encourage you to direct the legal team and staff to be aggressive and push the envelope. We hope that the myriad materials we've provided will help that effort. We would also encourage the PC to make a permit process specific for Telecoms seeking small-cell-tower installation and try to protect ourselves from any aggressive permit application games the Telecoms may initiate with the town. (See the permit application suggestions that have been submitted to you earlier.)

We remain available to you all to meet and or to provide any of the information we've collected (still collecting weekly) and strategies and approaches for the language itself.

Thank you again for bringing your attention to this matter and your recognition of how serious this is, and how many citizens care deeply about this issue, both the hazards of the technology and the loss of local control.

Sincerely,

5G Free Marin  
Fairfax Task Force  
Local Team Leads

Richard Appelbaum  
61 Woodland Rd 94930

Roberta Anthes  
2 Snowden Lane 94930

Jessica Lerner  
14 Canyon Rd 94930

Andy Peri  
10 Cyress Drive. 94930

TOWN OF FAIRFAX

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Dear Members of the Fairfax Town Council,

I am forwarding you this webpage from the United States Access Board, the agency that implements the American's with Disabilities Act (ADA). While this information certainly does not solve our problems, it raises questions about how Fairfax should comply with two federal laws that are at odds with one another.

The FCC and state laws prohibit telecom siting for health reasons yet the US Access Board says that accommodations must be made for those with electromagnetic sensitivities.

While this contradiction may not have an immediate solution, I would like to encourage you to consider how we might move forward in light of it. Which federal rules do we comply with and how?

Thank you for taking a look at this and I look forward to our continued dialog.

Best,

Andy Peri

<https://www.access-board.gov/research/completed-research/indoor-environmental-quality/recommendations-for-accommodations>

## UNITED STATES ACCESS BOARD

### Advancing Full Access and Inclusion for All

#### Recommendations for Accommodations

People with chemical and/or electromagnetic sensitivities can experience debilitating reactions from exposure to extremely low levels of common chemicals such as pesticides, cleaning products, fragrances, and remodeling activities, and from electromagnetic fields emitted by computers, cell phones, and other electrical equipment.

The severity of sensitivities varies among people with chemical and/or electromagnetic sensitivities. Some people can enter certain buildings with minor accommodations while others may be so severely impacted that they are unable to enter these same spaces without debilitating reactions. Furthermore individual tolerances to specific exposures can vary greatly from one individual to the next. Meanwhile some exposures, such as the application of certain pesticides or extensive remodeling, for example, may be devastating to all chemically sensitive people and make a building or facility inaccessible for a substantial period of time.

According to the Americans with Disabilities Act (ADA) and other disability laws, public and commercial buildings are required to provide reasonable accommodations for those disabled by chemical and/or electromagnetic sensitivities. These accommodations are best achieved on a case-by-case basis.

Reasonable accommodations for a chemically sensitive and/or electromagnetically sensitive individual can include providing a space or meeting area that addresses one or more of the Cleaner Air criteria, upon request, such as

- Remove fragrance-emitting devices (FEDS)
- Delay or postpone indoor or outdoor pesticide applications, carpet cleaning, or other cleaning or remodeling until after the meeting
- Provide room or meeting area near exterior door or with window(s) that can be opened
- Require cell phones and computers be turned off
- Provide incandescent lighting in lieu of fluorescent lighting
- Provide at least one nonsmoking, fragrance-free person per shift to provide services (e.g. nurse, police officer, security guard, clerk )

For individuals who are unable to use or meet in a building or facility, or who are too severely impacted by chemical and/or electromagnetic exposures to use a designated Cleaner Air Room, accommodations may include:

- Meet an individual at the door or outside to conduct business
- Allow a person to wait outside or in car until appointment
- Provide a means, such as a phone, intercom, bell, or buzzer to summon staff to an outside door for assistance
- Permit business to be conducted by phone, fax, mail, or e-mail rather than in person
- Allow participation in a meeting by speakerphone

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## New Permit and Process Recommendations for Installing or Upgrading Advanced Telecommunications Equipment

v1.4 : 10/16/2018

The ideas described below start by recognizing that telecommunications equipment is very different from a normal building permit, and should therefore have its own permit application, and permitting process.

Creating a new permit and process will also have very two positive impacts. One, it will put the telcos on notice that the city/municipality understands the underlying issues involved in building and operating this type of equipment. Two, it provides several mechanisms for stopping the shot clock at different parts of the permit process, e.g. filling out the permit, agreeing to the conditions, notification of neighbors within 1500' of the antenna, agendaizing each permit as a separate planning meeting item, etc.

(It should be noted that a new permit application and process is separate from any underlying ordinance which lays out the circumstances under which a permit is required, and should not in any way impact the ordinance.)

### New Telecommunications Permit Application

A telecommunications permit application should include, at a minimum, the following line items to be answered, and made part of the public record:

- Name/address/phone/email including one or more named individuals for each of the following:
  - Installer
  - Equipment owner
  - Equipment operator
  - Any/all telcos involved currently, or who will use, or are expected to use, this equipment now or in the future
- List any/all related permits from other agencies such as MTA, MGSA, CPUC, etc.
- List all computer/telecommunications hardware items to be installed, including all support equipment such as antennas, battery backup, smart meter, etc. Include diagrams and blueprints for all installed equipment
  - For each piece of hardware list the manufacturer name, model and version to be installed
  - List each software version to be installed
  - Ask for detailed specs on both sustained, and maximum, output levels, specified in units of both SAR and mW/m<sup>2</sup> measured at both 100' and 500', at 6 different points around the antenna (e.g. every 60 degrees around the antenna), and at different altitudes - ground, 5', 10', and at antenna height.
- Answer question: Does the hardware or software have the ability to upgrade its software automatically? If so how? And how will the city know if this has been done?



- Answer question: Does the hardware or software have the ability to modify output levels? If so how? And how will the city know if this has been done?

## Permit Process Components

The following is a list of items which should be included as part of the permit, or permitting process:

### **A) Each antenna/installation should be treated as a separate permit.**

- Each permit will require notification to all neighbors within 1500' of the antenna.
- Each permit should be a separate line item on a city council or planning meeting agenda.
- No more than 5 permits will be considered at any single meeting.

**B) Neither hardware nor software may be upgraded** (automatically or otherwise) without going through a full permit review, including re-notification of all neighbors within 1500', plus another planning or council agenda item.

Why? Because new hardware and/or new software can be radically different from existing equipment, making it the virtual equivalent of tearing down a house and building a new one (read this article on [Tesla's Ludicrous Mode](#) to see what I mean). Just because the outer shell of the equipment is the same, doesn't mean you shouldn't be able to control what's inside that shell. And the permit process for replacement of hardware or software, including upgrading software versions, should be considered like a house being torn down and a new one built on the same footprint.

**C) Measurements shall be made before first use, and at random times** during the year, typically just once per year, but up to 3 times per year if it appears that output specs have been changed without a re-permitting. All tests will be at the cost of the operator.

**C.1) These tests will follow a detailed test plan** which describes the test operating conditions, the measurements to be made, the measurement conditions, the measuring equipment specs, and must include a certificate that the measuring equipment has been recently certified as accurate.

**C.2) The test plan will be presented at a city council meeting, where it shall be made available for review and comment by the council and any interested parties, and must be approved before any permits can be approved.**

**C.3) All tests shall be open and available to the public, so that any/all interested parties can watch, video, or otherwise document the tests in action.**

**C.4) The tests shall be documented in such a way that they can be replicated at any time, by a member of the public, with access to similar or equivalent test equipment.**

**C.5) The tests shall occur while the antenna is operating** at the highest levels of usage, e.g. 50 people using the antenna to download video at the same time, all standing around the measuring equipment truck so that the maximum antenna output is aimed in the direction of the measuring equipment. Measurements will be taken at ground, 5' and 10' levels, at the base of the antenna, at 100' and at 500'. If multiple antennas are in the area, all antennas must be operating and representative traffic must be occurring at the other nodes at the same time.

**D) Electric bills for each antenna shall be made part of the public record**, and available for anyone to see how much electricity each antenna is using, within 30 days of each meter reading. This will show the city which antennas are the most used, and which ones may be operating at levels higher than their specified output.

**E) If the antenna becomes abandoned or unused**, it shall be removed within 30 days, at the expense of the antenna operator.

**F) The telco/operator shall indemnify the city** as to any future lawsuits related to the installation or operation of said equipment, for any reason, including health related exposure or symptoms.

**G) If any of the line items on the permit change, during or after installation**, including but not limited to the operator, hardware and/or hardware version, software and/or software version, the ability to upgrade software automatically, etc., the operator shall notify the city and the city shall have 60 days during which to approve or deny said changes. All neighbors within 1500' of the permit shall be notified of the change request, and a council meeting shall be held within 30 days of the change notification, where it shall vote to approve or deny the change.

**H) The equipment will operate under a conditional use permit.** Any infraction to any of the agreed upon items in A-G above, will cause the operator to be notified, and allows the city/municipality to turn off the power if the infraction is not rectified within 3 business days after notification.

## **New Telecommunications Permit Process**

A) Fill out Telecommunications Permit, and agree to items A - G in section "Permit Process Components" above. Failure to properly or fully fill out the permit, or non-agreement to any of the items, shall stop the shot clock so that public negotiations can occur to resolve the issues at hand.

B) Measurement Test Plan will be placed on city council meeting for public review. All neighbors expected to be within 1500' of any likely future 5G antenna will be notified of the meeting. The Measurement Test Plan must be approved before any antennas can be permitted, built or operated.

C) For each permit: notify all neighbors within 1500' of the permit application.

D) Agendize each permit with a maximum of 5 permits per meeting.

E) Take comments for 30 days.

F) Each permit will be reviewed individually, during a planning or city council meeting (up to the city/municipality which meeting to review these at). Permits will be considered within 60 days, but may rollover into future meetings if the number of permits reaches 5 in any single meeting.

G) After installation, the equipment will be tested as described in section C above, and only after testing shows that the equipment, under typical load, falls within the FCC guidelines, will the equipment be certified for operation.

## **Why Do We Need a New Permit and Permit Process for Telecommunications Equipment?**

The reasons are three-fold.

1) **The impact of new telecommunications equipment is substantially different from building a house**, in that the building of a house is constrained to the lot on which the house will stand, while telecommunications equipment, which emits EMF and other radiation, will have an impact on citizens well beyond the location of the equipment. This is why the permit process described below includes notification of neighbors within 1500' (this could be increased), a testing process which includes an open viewing of the test measurements by the public, and requires the approval of a test plan before testing commences.

2) **Unlike a house, telecommunications equipment can be upgraded via software, and/or hardware upgrades which fit within the same housing**, but which have completely new characteristics, e.g. much higher data rates, EMF levels, etc. As such, any/all upgrades of hardware or software should require a new permitting process (example: you would never allow a new house that fit within the same footprint as the old house to be built without permits, and neither should you allow new telecommunications equipment to be installed or upgraded just because it fits within the existing housing or shell).

3) If a permit is being applied for in a location where an existing permit has been issued, the addition of this new equipment will burden not only the infrastructure on which the equipment is being installed (e.g. light poles or telephone poles which now have two or more antennas installed), but the operation of such will cause the total EMF levels to rise, and these **combined EMF levels may go above the safety standards set by the FCC or other authority, and if this is the case there may be a justification to deny said application.**

-- END --

NOV 26 2018

<u>Citation</u>	<u>Language to change /delete</u>	<u>Change/Additions</u>
Findings ¶16		<p style="text-align: right;"><b>RECEIVED</b></p> <p><b>Add to ¶16 of findings:</b> The Town finds that Northern California is now experiencing an unprecedented increase in the number and intensity of wildfires exacerbated by the effects of climate change, and that power lines and electrical equipment failures are a leading cause of California wildfires; that overburdened utility poles can present a hazard of collapsing and failing, that wireless facilities may present an electrical hazard and/or increase the risk of electrical fires if not properly regulated, installed and monitored;</p>
Findings ¶16	New Paragraph of Findings -	<p><b>New Paragraph:</b> The Town finds that a personal residence is for most homeowners their single greatest financial asset, and that proximity of wireless facilities has been shown to adversely affect property values of personal residences. The Town further finds that aesthetic considerations in residential zones are enhanced due to proximity to personal residences.</p>
Page 4 of Ordinance- Line 144-146	<p>Keep Chapter 19 intact</p> <p>Section 1. The Fairfax Municipal Code is hereby amended as follows: Title 19 of the Fairfax Municipal Code is hereby repealed and replaced in its entirety to read as set forth in Exhibit A to this Ordinance, which is hereby incorporated as though set forth in full herein.</p>	<p><b>Change to:</b></p> <p>Section 1. A New Section, Section 20, of the Fairfax Municipal Code is hereby added as set forth in Exhibit A to this Ordinance, which is hereby incorporated as though set forth in full herein. To the extent this Section 20 conflicts with Section 19, Section 20 shall control and amend Section 19.</p>
Throughout	If we keep Chapter 19 intact, Change the Numbers of the Ordinance from "19.xx.xx" to "20.xx.xx"	
Page 7 Line 221	<p><b>Harmonize with keeping existing chapter 19</b></p> <p><b>change from :</b> "This chapter 19.04 shall govern all applications for wireless telecommunications facilities.:"</p>	<p><b>Change To:</b></p> <p>"Title 19 and Title 20 shall govern all applications for wireless telecommunications facilities."</p>

<u>Citation</u>	<u>Language to change /delete</u>	<u>Change/Additions</u>
P. 10 ¶B-1 (b) line 287	after "emission standards"	add, "and applicable electrical codes and fire codes and best practices for fire and electrical safety." w
Page 10 line 287	Add new subparagraph	<b>Add new subparagraph (d):</b> "an engineering and seismic assessment of the proposed installation to ensure the proposed location (i.e. pole) is structurally adequate to support the proposed installation, and the installation will meet the seismic standards set forth for "Risk Category IV" for "essential facilities" as set forth in the California Building Code (CBC), and adequately engineered to withstand the maximum wind loads that could be reasonably anticipated for the location;
Page 10 line 287	Add new subparagraph  Re-number the following sub-paragraphs accordingly	<b>Add new subparagraph (e):</b> "an assessment of any fire hazard a proposed installation presents to surrounding vegetation and structures;"
Page 17, ¶A.1 Line 541	before "and the approved plans"	add, "engineering and electrical plans/schematics and specifications"
Page 18, Line 577	add, after "Federal Aviation Administration"	"as well as all electrical code requirements for the equipment, wiring the equipment and providing power to the equipment, to ensure the facility does not pose an undue fire risk or electrical risk;
Page 18, Line 579	add, after "operational standards,"	and to ensure the equipment is operating within proper voltage specifications and does not pose an undue fire risk or electrical risk.
Page 18, Line 579	Tests shall occur upon commencement of operations and <b>annually</b> thereafter.	Change " <b>annually</b> " to " <b>quarterly</b> "

<u>Citation</u>	<u>Language to change /delete</u>	<u>Change/Additions</u>
p. 18 Line 585	add new paragraph after ¶7.	<p><b>add new paragraph after ¶7.</b></p> <p>If, upon inspection, the zoning administrator and the Town’s consultant determine there is good cause to believe that the facility (including, without limitation its Accessory Equipment, Antenna and/or Base Station) may present a fire risk or electrical hazard, the zoning administrator may order the facility to shut down and powered off until such time as the facility is repaired and restored to its correct operating specifications, as determined by the Town’s consultant, at the sole expense of the permittee.</p>
P. 19 ¶9, line 599	after “and the project”	add, “and any and all claims, actions, or proceeding arising from, or related to, the installation, operation or inspection of any facility.”
P. 21  ¶19.04.120 (A)(1)  line 690		<p><b>add at the end of sentence</b></p> <p>“, including the technical review by the Town’s Independent Expert set forth in Section 19.04.050(B)”</p> <p>[or 20.04.050(B) if we renumber this chapter]</p>
Page 25  Lines 834-838	The Town Manager shall serve as the appellate authority for all such an appeal. The Town shall provide notice for an administrative hearing by the Town Manager. The Town Manager shall limit its review to whether the project should be approved or denied in accordance with the provisions in paragraphs (G) and (H) of this section. The decision of the Town Manager shall be final and not subject to any further administrative appeals.	<p><b>[The Planning Commission/Town Council]</b> shall serve as the appellate authority for all such an appeal. The Town shall provide notice for an administrative hearing by <b>[The Planning Commission/Town Council]</b>.</p> <p><b>[The Planning Commission/Town Council]</b> shall limit its review to whether the project should be approved or denied in accordance with the provisions in paragraphs (G) and (H) of this section. The decision of <b>[The Planning Commission/Town Council]</b> shall be final and not subject to any further administrative appeals/<b>[or if appeal is to P/C, then final appeal to TC.]</b></p>

TOWN OF FAIRFAX

NOV 26 2018

RECEIVED

## Property Values for Fairfax Property Owners

One of the concerns being raised by communities around the current 5G “small cell” rollout, is the impact to property values in the vicinity of new antenna installations.

A survey conducted in June 2014 by the National Institute for Science, Law and Public Policy (NISLAPP) in Washington, D.C., *Neighborhood Quality of Life Survey – Do Residents Value Properties Near Cell Towers?*, shows home buyers and renters are less interested in properties located near cell towers and antennas, as well as in properties where a cell tower or group of antennas are placed on top of or attached to a building.

Of the 1,000 survey respondents, 94% reported that cell towers and antennas in a neighborhood or on a building would impact interest in a property and the price they would be willing to pay for it. And 79% said under no circumstances would they ever purchase or rent a property within a few blocks of a cell tower or antennas. And almost 90% of respondents said they were concerned about the increasing number of cell towers and antennas in their residential neighborhood, generally.

Reductions as high as 20% are being reported by REALTOR magazine, the New York Real Estate Journal and the Appraisal Journal.

5G Free Marin is recommending language be included in our Fairfax ordinance that protects property owners and property values from this effective “taking” of Fairfax resident’s property should 5G installations go forward. We recommend language in 5G permit applications that would:

- Require the telecom to perform a real estate value reduction analysis of all properties within 750 feet of an proposed installation
- Require a public meeting where the applicant provides data and analysis for homeowners to view and discuss.
- Provide compensation for additional studies by property owners that deem the telecom’s analysis falls short of accepted current industry information.
- Should the telecom move forward with installations that adversely effect property values, the telecom shall provide just compensation to property owner for the reduced value of their property.

Below please find additional resources regarding property value reductions:

“Cell Tower Antennas Problematic for Buyers” published in REALTOR® Magazine:

- An overwhelming 94 percent of home buyers and renters surveyed by the National Institute for Science, Law & Public Policy (NISLAPP) say they are less interested and would pay less for a property located near a cell tower or antenna.
- The NISLAPP survey echoes the findings of a study by Sandy Bond of the New Zealand Property Institute and past president of the Pacific Rim Real Estate Society (PRRES). "The Impact of Cell Phone Towers on House Prices in Residential Neighborhoods," which was published in The Appraisal Journal in 2006, found that buyers would pay as much as 20 percent less for a property near a cell tower or antenna.

"Examining invisible urban pollution and its effect on real estate value in New York City" – by William Gati in New York Real Estate Journal September 2017

- "Understanding EMF values of business and residential locations is relatively new for the real estate industry. Cell phone towers bring extra tax revenue and better reception to a section of the city, but many are skeptical because of potential health risks and the impact on property values. Increasing numbers of people don't want to live near cell towers. In some areas with new towers, property values have decreased by up to 20%."

2014 Survey by the National Institute for Science, Law and Public Policy (NISLAPP) in Washington, D.C., "Neighborhood Cell Towers & Antennas—Do They Impact a Property's Desirability?"

- Home buyers and renters are less interested in properties located near cell towers and antennas, as well as in properties where a cell tower or group of antennas are placed on top of or attached to a building. 94% said a nearby cell tower or group of antennas would negatively impact interest in a property or the price they would be willing to pay for it.
- Read the Press Release: Survey by the National Institute for Science, Law & Public Policy

Sandy Bond, Ph.D., Ko-Kang Wang, "The Impact of Cell Phone Towers on House Prices in Residential Neighborhoods," The Appraisal Journal, Summer 2005; Source: Goliath business content website.

- "Overall, respondents would pay from 10%–19% less to over 20% less for a property if it were in close proximity to a CPBS."



## Linda Neal

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**From:** Ben Berto  
**Sent:** Tuesday, November 20, 2018 5:10 PM  
**To:** Linda Neal  
**Subject:** RE: Retail Canabis

Linda

On the other hand, consistent with my email today on the 5G Free Fairfax letter, simply include this as a separate attachment to the PC.

Ben

-----Original Message-----

**From:** Ben Berto  
**Sent:** Wednesday, October 31, 2018 5:11 PM  
**To:** Linda Neal <lneal@townoffairfax.org>  
**Subject:** FW: Retail Canabis

Linda

Please include Mr. Bagley's email in the Planning Commission's 112918 agenda packet.

Ben

-----Original Message-----

**From:** Rick Bagley, Ed.D. [mailto:rbagley@rossvalleyschools.org]  
**Sent:** Thursday, October 25, 2018 7:13 PM  
**To:** Ben Berto <bberito@townoffairfax.org>  
**Cc:** Garrett Toy <gtoy@townoffairfax.org>  
**Subject:** Retail Canabis

Dear Mr. Berto,

I had hoped to attend the Planning Commissions meeting this evening, to speak briefly during public comments regarding possible plans to initiate retail sales/deliveries of cannabis out of a business location situated immediately adjacent to the little league field in downtown Fairfax. Unfortunately I've been under the weather today, so I will not be able to attend.

My purpose in speaking out is not to take a political position on this matter, but to instead share a thought or two for the commission's consideration. Please forgive me if this information is already being discussed and evaluated as part of the commissions deliberations.

The Town of Fairfax, as you know, is a hub for a large number of our District's students, who typically congregate there each day after school, either on their way home or to a particular after-school activity. These students are largely unsupervised during these times and, being young adolescents, they are typically very curious about all manner of things and willing to explore, experiment, etc. Students of this age can also be known to sometimes not make the wisest or healthiest of decisions, particularly when it comes to exploration and experimentation of the world they are starting to see from a whole different perspective.

As a result, many of my colleagues and I do wonder how we can all help successfully and safely guide our students through a world where certain substances that may be harmful to them if exposed at their young age, can be minimized or avoided.

You are likely wrestling with this very issue as you think about the practical implications of retail cannabis within a small town that is a focal point for so many young people. I don't pretend to have any answers here, but do want to offer any support I or my District may provide, in taking all steps possible to ensure these substances end up in adult hands and not those of our students.

I worked in another district when cannabis became legal for medicinal use. We were seeing a little over 3 possessions per month in our middle schools, but this went up five-fold once people could legally obtain cannabis for medicinal purposes. Needless to say, that's not the outcome anyone wants to see in this case and I sincerely hope we can all work together to make sure we don't.

Thank you for reading my message and please feel free to reach out if you and the commission feel I can help you in any way.

Sincerely,

Rick Bagley

Message sent via iPad by  
Dr. Rick E. Bagley, Superintendent  
Ross Valley School District

E-Mail Disclaimer: This communication and any documents, files, or previous e-mail messages attached to it, constitute an electronic communication within the scope of the Electronic Communication Privacy Act, 18 USCA 2510. This communication may contain non-public, confidential, or legally privileged information intended for the sole use of the designated recipient(s). The unlawful interception, use or disclosure of such information is strictly prohibited under 18 USCA 2511 and any applicable laws. If you are not the intended recipient, please contact the sender by reply email and destroy all copies of the original message.

Message sent via iPad by  
Dr. Rick E. Bagley, Superintendent  
Ross Valley School District

E-Mail Disclaimer: This communication and any documents, files, or previous e-mail messages attached to it, constitute an electronic communication within the scope of the Electronic Communication Privacy Act, 18 USCA 2510. This communication may contain non-public, confidential, or legally privileged information intended for the sole use of the designated recipient(s). The unlawful interception, use or disclosure of such information is strictly prohibited under 18

## Linda Neal

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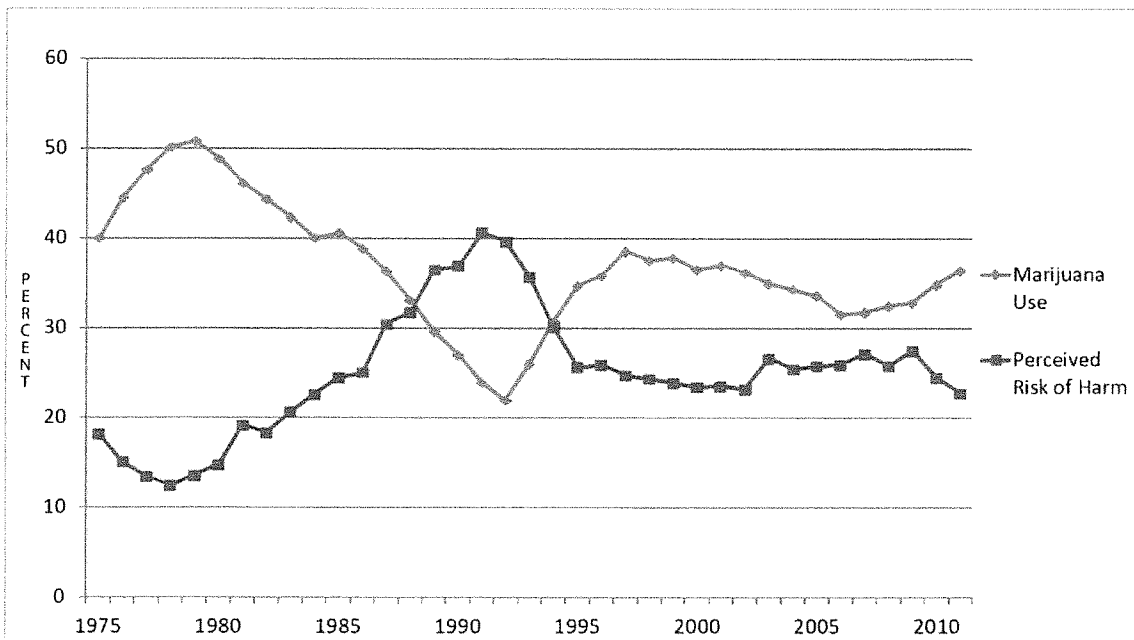
**From:** Jazzy Gerraty <jazzy.gerraty@gmail.com>  
**Sent:** Friday, November 30, 2018 11:20 AM  
**To:** Linda Neal  
**Subject:** Planning Commission: Cannabis Retail  
**Attachments:** WH\_Vaping.pdf

Dear Commissioners,

Thank you for the opportunity to share my concerns related to cannabis storefronts in town. Below are studies and follow-up information from my statements I made last night. I have also attached a flyer for an event at Whitehill Middle Schools surrounding vaping.

As an advocate for local youth, one of my main concerns is how cannabis retail shops contribute to **normalization and low perception of harm** for youth.

Decreased perception of harm is associated with increased use. And we know that societal attitudes and lenient policy reduces perceived risk.



Source: Monitoring the Future Study, [www.monitoringthefuture.org](http://www.monitoringthefuture.org)

According to the the latest California Healthy Kids survey results which we have access to, **35% of freshmen and 57% of juniors** at Drake High School believe there is slight-to-no-harm in smoking marijuana once or twice a week. That number is expected to increase with the marketing of recreational marijuana.

Another concern I brought up was the rising **THC levels**.

I think Malcolm Gladwell recently summed it up quite well when he said:

*"To my mind, the important issue is not the economic one, it is the psychological and medical one. Research seems pretty clear that the kind of marijuana that's being sold now, which has levels of THC that are seven or eight times higher than historically, has some quite serious side effects, not all of which we understand." He went on to say, "The idea of having the general public consume what is an extraordinarily powerful drug that we don't fully understand is quite terrifying to my mind."*

(2)

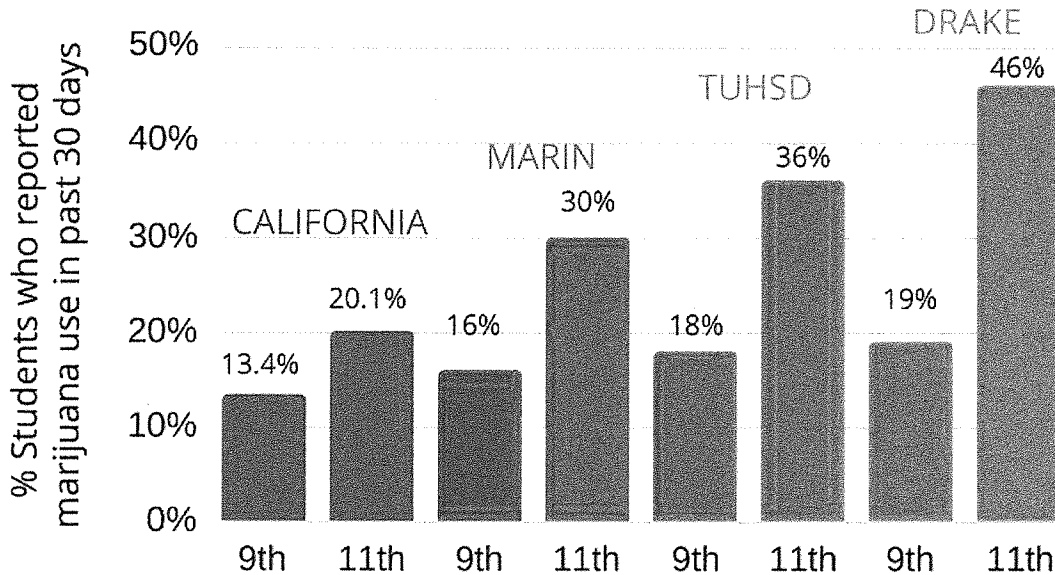
(<https://wdet.org/posts/2018/11/19/87567-malcolm-gladwell-is-not-a-fan-of-legalizing-recreational-marijuana>)

If there is any question of what commercialization will create in the marketplace, this article from last August describes a product with 99% THC - "Weed crystals, resembling meth, test at nearly 100 percent".

(<http://www.thekindland.com/products/we-tried-99-percent-thc-a-crystalline-dabs-and-it-1983>)

I also addressed that we are already battling some of the highest rates of cannabis use in the state and nation among local youth here at Drake High School.

## CALIFORNIA HEALTHY KIDS SURVEY CURRENT MARIJUANA USE



***There is absolutely no evidence that opening a storefront in Fairfax will remove the illegal market and lead to decreased access for youth.***

While it is too soon for any real data on youth use in California post-legalization, experts say legalization combined with retail accessibility will likely increase use by youth. Case in point: Washington State (2012 recreational legalization) has the highest youth marijuana consumption rate. (Smart Approaches to Marijuana, Ben Cort)

So why does this matter? I won't go into all the details of the harms of cannabis use on the adolescent brain, but I would like to address the **fatalities associated with cannabis use** since I so often hear that "no one has ever died from a marijuana overdose". While it may be true that there are no reports of a toxic levels of THC leading to death, there are fatalities related to automobile accidents (1), combining cannabis and alcohol, addiction, and suicide (2).

I would also like to comment on **the comparison to alcohol outlets**. The fact is, that our kids are suffering from the normalization of alcohol use in our local environment as well. The Marin County Civil Grand Jury reported on this crisis in a detailed report (3).

**Marin County currently ranks as one of the top counties in the state in binge drinking, DUIs, and drug overdose deaths for adults**— and these are *pre-legalization* statistics. Matt Willis, Marin County Public Health Officer, stated in 2016, "This data should clearly engage our community in recognizing this as a public health priority if not a crisis."

Marijuana and alcohol are a dangerous combination and selling cannabis next door to a bar is not a good idea for our community. "All studies agree that combining alcohol and marijuana inflates the level of driver impairment and crash risk," said Staci Hoff, PhD, Research Director, Washington Traffic Safety Commission. "The deadly consequence of combining these two impairing substances is already apparent in Washington fatal crash data." (<http://wtsc.wa.gov/new-report-shows-multiple-drug-use-responsible-for-one-in-four-washington-traffic-deaths-in-2016/>)

Below is the data related to the impact of **retailer locations in close proximity to youth**. As I mentioned before, there is little true data since recreational legalization is so recent. Unfortunately, we are the experiment - which is why I urge Fairfax policymakers to proceed with caution and public health in mind.

We know from tobacco research, that youth are more likely to report use of substances when there are higher concentrations of outlets. In a study based that looked at the 2005-2006 California Student Tobacco Survey against the number of retail outlets, they found that the prevalence of current smoking was 3.2 percentage points higher at schools in neighborhoods with the highest tobacco outlet density (>5 outlets) than in neighborhoods without any tobacco outlets. The density of retail cigarette advertising in school neighborhoods was similarly associated with high school smoking prevalence. (<https://www.ncbi.nlm.nih.gov/pubmed/18544462>).

In another study, based on the 2003-2004 California Student Tobacco Survey, researchers found a "a small but nonetheless significant relationship between the density of retailers within 1 mile of a school and students' reports of smoking initiation." In that study, they noted that it was the number of retail stores in proximity to the schools that increased smoking (not simply having a set distance between one shop and the school). (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2759807/>).

We also know from alcohol research that limiting the number of retail outlets limits the number of alcohol-related harms as well as alcohol consumption by youth. In a 2015 study published in Psychology of Addictive Behaviors, researchers found that greater alcohol outlet density was associated with increased youth access. (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4701620/>). We also know that alcohol-related harms increase when outlet density increases -- harms such as excessive use, child abuse, violent crimes and motor vehicle accidents.

Studies are also coming out that show similar harms from excessive concentration (density) of cannabis retailers. In a 2015 study of California cannabis outlets, researchers found an association between the density of local marijuana dispensaries and a greater number of hospitalizations with a primary or secondary marijuana abuse/dependence code (though they did note some limitations). (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4536157/>). You may also want to take a look at the San Francisco Department of Public Health's Executive Summary on Cannabis. In that summary, they state:

"The scientific literature examining the impacts of cannabis retailers and medical cannabis dispensaries (MCDs) is extremely limited, provides mixed findings, and focuses predominantly on MCDs. Studies examining MCD and retailer impacts have found that, similar to the impacts of alcohol and tobacco outlets, their proximity to and/or density within communities is positively associated with current cannabis use, recent cannabis use by certain adolescents groups (8th and 10th graders), lower age of cannabis use onset, cannabis use disorder hospitalizations and frequency of child physical abuse." (<https://www.sfdph.org/dph/files/opp/SFDPH-CannabisReport-ExecutiveSummary-Fall2017.pdf>).

SFDPH did note that there were some other studies showing different results, but this finding does match what we know about alcohol.

I would like to thank you again for weighing the impact that cannabis storefronts will have on public health and the health and safety of the youngest residents in our community.

Sincerely,

Jasmine (Jazzy) Gerraty

(1)<https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2018/05/31/drugged-driving-deaths-spike-with-spread-of-legal-marijuana-opioid-abuse>

(2)CO Dept. of Public Health and Environment, CO Violent Death and Reporting System as reported by Rocky Mountain HIDTA)

(3)[https://www.marincounty.org/-/media/files/departments/gj/reports-responses/2011/marin\\_youth\\_alcohol\\_crisis.pdf](https://www.marincounty.org/-/media/files/departments/gj/reports-responses/2011/marin_youth_alcohol_crisis.pdf)

## **Linda Neal**

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**From:** Valeri Hood <bertmbartsch@yahoo.com>  
**Sent:** Saturday, December 01, 2018 11:29 AM  
**To:** John Reed; Peter Lacques; Bruce Ackerman; Renee Goddard; Barbara Coler  
**Cc:** Michele Gardner; Linda Neal  
**Subject:** A letter opposing 5G from Michelle Perro Fairfax resident--for Fairfax Council and Planning Commissioners  
**Attachments:** Untitled.pdf

Please place this letter, from Dr. Michelle Perro- Fairfax resident, into the public record. You will see that she is well qualified to speak on this topic.

Please distribute to Council and Planning Commission members. Please have copies available for the public at the time of the next Planning Commission and Town Council meetings.

Dr. Michelle Dominique Perro, MD, is a Pediatric Medicine specialist in Greenbrae, California. She attended and graduated from Mount Sinai School Of Medicine Of City University Of New York in 1982, having over 36 years of diverse experience, especially in Pediatric Medicine. Her career began in Pediatric Emergency Medicine winding its way into homeopathic and functional medicine over the years. She has been director of a Pediatric Emergency Department in NYC and spent over a decade at UCSF Benioff Oakland Children's Hospital.

Dr. Perro has been a tireless advocate concerning the role of GM food and their associated pesticides and their affect on children's health.

### **Education**

- Yale University, New Haven, CT; BA in Spanish-American Literature, Graduated Cum Laude. – 1974 – 78
- Mount Sinai School of Medicine, NY, NY; MD. Honors in Medicine and Pediatrics. 1978 – 82
- NYU/Bellevue; Three- year pediatric residency, NY, NY. 1982 – 85
- Licentiate, Masters in Public Health, Maternal and Child Health Care Division, NY Medical College, Valhalla, NY. 1988 – 89
- Institute for Natural Therapy; Diploma in Homeopathy, London. 2002

### **Professional Memberships, Awards, and Certifications**

- 2015 – PALS certified
- 1987 – Pres National Board of Medical Examiners; Certified in Pediatrics
- 1995 – 2008 National Board of Medical Examiners; Certified in Pediatric Emergency Medicine
- 2014 – Patients' Choice for Outstanding Physician Award; Sutter Pacific Medical Center; SF, CA.
- 2002-2006 – Yearly recognition by the Consumer Guide to Top Pediatricians; Consumer's Research Council of America.
- 2002 – Diploma in Homeopathy, 2002.

- 2000 – Marin County Child Abuse Association Award for excellence in the treatment of pediatric sexual assault.
- 1999 – Outstanding Teacher Award; presented by the Pediatric House Staff Oakland Children’s Hospital.

### **Advisory Boards**

- 2018 – Present – **Documenting Hope**. Advisor to a research project on autism.
- 2014 – Present – **GMOscience**. Co-Founder, Executive Director, and Expert Advisory Board member and Co-founder for Scientific-based website regarding GMOs and health.
- 2015 – Present – **Made Safe**/Nontoxic Certified; Comprehensive human health certification to cross consumer product categories in identifying what is safe and non-toxic via laboratory certification. Serve as Science Advisor.
- 2006 – Present – **MOMAS** (Moms Advocating Sustainability); Marin County organization for health reforms for children against toxic exposures locally and statewide. Serve as Medical Advisor.

### **Publications**

Michelle Perro and Vincanne Adams, What’s Making Our Children Sick?, Chelsea Green Publishing, 2018

Thank you  
Valeri Hood  
79 Dominga Ave, Fairfax

## Linda Neal

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**From:** Roberta Anthes <robertaanthes@aol.com>  
**Sent:** Sunday, December 02, 2018 5:15 PM  
**To:** Linda Neal  
**Subject:** Please send to the Planning Commissioners - Thanks:)

Dear Commissioners,

Thank you for hearing us this past Thursday. I am so grateful that you were willing to consider our ideas.

Below please find a copy of San Anselmo's Limited Exceptions Chapter. I spoke on this at the meeting and I want to make sure you get a copy. I believe it's vital to strengthen our chapter, otherwise all the great amendments we make will be more vulnerable to challenge.

### From San Anselmo's Ordinance:

(C) **Limited Exceptions** for Personal Wireless Service Facilities. In the event that an applicant claims that strict compliance with the site location guidelines in Section IX (Site Location Guidelines) or the development standards in Section X (Development Standards) would effectively prohibit the applicant's ability to provide personal wireless services, the Planning Commission may grant a limited exception from such requirements to the extent necessary to prevent an effective prohibition when the Planning Commission finds all of the following:

(1) the proposed wireless facility qualifies as a "personal wireless service facility" as defined in 47 U.S.C. § 332(c)(7)(C)(ii), as may be amended or superseded; and

(2) the applicant has provided the Planning Commission with a reasonable and clearly defined technical service objective to be achieved by the proposed wireless facility; and

(3) the applicant has provided the Planning Commission with a written statement that contains a detailed and fact-specific explanation as to why the proposed



wireless facility cannot be deployed in compliance with the applicable provisions in this Part 1, the San Anselmo Municipal Code, the General Plan and/or any specific plan; and

(4) the applicant has provided the Planning Commission with a meaningful

comparative analysis with the factual reasons why all alternative locations and/or designs identified in the administrative record (whether suggested by the applicant, the Town, public comments or any other source) are not technically feasible or potentially available to reasonably achieve the applicant's reasonable and clearly defined technical service objective to be achieved by the proposed wireless facility; and

(5) the applicant has demonstrated to the Planning Commission that the proposed location and design is the least non-compliant configuration that will reasonably achieve the applicant's reasonable and clearly defined technical service objective to be achieved by the proposed wireless facility, which includes without limitation a meaningful comparative analysis into multiple smaller or less intrusive wireless facilities dispersed throughout the intended service area.

The Town shall have the right to hire an independent consultant, at the applicant's expense, to evaluate the issues raised by the exception request and shall have the right to submit rebuttal evidence to refute the applicant's claim.

**D. Appeals.** Any interested person or entity may appeal any decision by the approval authority in accordance with the standards and procedures in SAMC, Title 1, Chapter 4, except as modified in this Section VII(D). On the next available meeting date after the appeal period lapses, or as soon as reasonably feasible thereafter, the appellate body shall hold a de novo public hearing to consider and act on the application in accordance with the applicable provisions in the General

Plan, any applicable specific plan and all applicable provisions in the San Anselmo Municipal Code. Appeals from an approval will not be permitted to the extent that the appeal is based on environmental effects from RF emissions that comply with all applicable FCC regulations [and also comply with ADA regulations - my input:)].

Thank you again!

Roberta Anthes  
2 Snowden Lane  
415-721-0906

## Linda Neal

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**From:** jess lerner <jesslerner8@gmail.com>  
**Sent:** Tuesday, December 04, 2018 1:24 PM  
**To:** Linda Neal; Andy Gmail  
**Cc:** Mimi Newton  
**Subject:** Thank you!!

Dear Linda,  
Please forward this to the entire PC. Thank you!

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Dear Planning Commissioners,

We want to thank you for your thoughtful, thorough and strong approach on the wireless ordinance last Thursday. Thank you for taking the public's comments seriously, and focusing on what we can do to protect the town in creative and strategic ways.

We also appreciate your reviewing the documents we sent and spoke about at the meeting- we know it is a lot of material, yet all valuable and useful as part of the recommendation process, so thank you again for taking the time to read and consider everything we shared.

We truly appreciate your strong approach, effort to include everything you thought relevant, and requiring review of the recommendations once written by staff.

We are looking forward to seeing your recommendations incorporated into the Dec. 20 staff report, and continuing the process with you then.

In appreciation,

Jess Lerner, Andy Peri, and the 5G Free Task Force

Monday, December 3, 2018

## Personal Statement regarding 5G in Fairfax

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Michelle Perro, MD

180 Toyon Drive

Fairfax, CA. 94930

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Please submit into the Public record.

To the Members of the Fairfax Town Council:

I am presently traveling and working, so unable to attend this very important meeting regarding the introduction of 5G into our community.

I am a pediatrician of 37 years and have been taking care of chronically ill children for the past 20 years. As some of my fellow community members may recall, I ran an integrative urgent care in Fairfax for 6 years (Down to Earth Pediatrics).

Approximately in 2006, I became very alarmed regarding the rising number of chronically sick children that I was seeing. I became involved with the effects of GMOs and their associated pesticides on our children's health. Last year, I co-published, "What's Making our Children Sick?", with Dr. Vincanne Adams (medical anthropologist at UCSF) who was a Fairfax resident at that time. I've been lecturing and traveling discussing the effects of toxic foods on our children's health which was the subject of our book.

Although I have mainly focused on food issues, I have been concerned and cognizant of the effects of other toxic exposures on health including plastics, heavy metals, flame retardants, etc. One of the most alarming and little-talked about issue, however, is the effect of EMFs from wifi and cellular sources effecting health. To date, there are no studies looking at the effects of multiple simultaneous exposures on health such as those listed above.

The research on the health concerns of continuous electromagnetic frequency has been known for decades. Industry has done a good job of obfuscating the truth as well as influencing policy makers. The story is parallel to both issues regarding GMOs and tobacco.

Monday, December 3, 2018

In a brief letter sent to your committee, I have listed one of the most recent and concerning studies from the Ramazzini Institute in Italy as well as two scientists who have written on this subject, Dr. Davies and Blank.

It appears that these frequencies have an effect on immune function, brain activity (mood, sleep, behavior, etc.), hormones and other physiologic functions. Children are particularly vulnerable to these non-biologic frequencies. Wifi/cellular exposure are now a must when taking a medical intake on a child or patient since chronic illness may be tied to exposures. I have taken care of a 12 year old girl with insomnia when queried, slept over the garage where the router was located. Upon turning it off, it was the first time she slept well in 2 years. I have had patients that cannot stay in hotels due to the wifi. I have also taken care of people with cancer relapses when cellular towers were constructed near their homes. There are some individuals that must use special computers since they develop neuropathies from wifi when using computers. Western medical practitioners have been slow to respond to this newest toxic environmental issue because of the desires of people to have fast internet access. In addition, babies exposed to wifi from baby monitors are at risk and decreased melatonin levels are found in infants in incubators from wifi monitoring. This is a very brief description of a few of the clinical scenarios we are now being faced with.

Be clear; this technology and its long-term effects on health have not been studied. If we allow this newest RF in our neighborhood, we will be the human scientific study. This is what happened with GMOs and pesticides and the results have been disastrous. Due to the push by industry, science is often thwarted or ghostwritten. We shouldn't be naive in this process. As I have mentioned, Dr. Martin Blank, a Stanford scientist wrote a recent book, "Overpowered" discussing the health effects in lay-person language. This is a must-read for anyone considering allowing the installation of 5G technology.

What is the harm in slowing down and reviewing the scientific literature on the subject?

Respectfully submitted,

Michelle Perro

mdperro@earthlink.net

Dear Council Members of Fairfax,

December 5, 2018

Thank you for your dedication to protecting and honoring the rights of the citizens of your township to a good life. I took on a similar oath to protect and guard the health of my patients as a physician 20 years ago. The first line of the Hippocratic Oath I took on as a physician is "First do no harm."

The issue of 5 G is not about a few electrical hypersensitive individuals who are paranoid about EMF, nor is it about conspiracy theorists who want to spread their radical ideas to block inevitable modernization. I wish it were this innocent an issue. The 5 G curse ultimately is a battle between technological communication vs. natural biological cellular communication. It's an issue between authority over our own health, mind, thinking and natural biological systems of communication (including those of animals, insects and plants) vs. one controlled by technology that as it appears does not have our health in mind.

To rectify this issue, you will need to dig deep into your soul and into your heart to do what's right and not what's convenient nor obedient to an unjust larger federal governing body.

5G is a non-thermal microwave frequency of EMF that promises a happy world in which "everything is connected to everyone all the time" ... it's high speed smart phones, 100x more powerful, it's new highways of artificial intelligence connecting one cell phone tower every three homes, connecting with up to 20,000 satellites in the earth's ionosphere, so that you can have your car drive you to work, turn on your coffee machine from your bed and maybe even pretend to walk through the woods inside your home with the possibility of virtual reality goggles and videos all around. Sounds really modern, stealth, sleek and sort of cool and fun... like stepping into a James Bond scene or a movie theater of brilliant artificial sound and light without having to drop acid.

That's exactly where 5G and its artificial intelligence should stay in my opinion... in the movie theaters and amusement parks.

The unspoken truth is that 5G steals us of our privacy, our health, the beauty of our neighborhoods, income into our townships that would be used to pay for cable but instead goes to private industry of 5G.

As a physician, my biggest concern for myself and for my patients of course has to do with our health. I'm not the only one with this concern, in fact more than 200 scientists and doctors from 38 nations have signed the declaration calling for a moratorium on the deployment of 5G cellular technology. Published in an article titled "Scientists and Doctors Demand Moratorium on 5G April 26, 2018 by Joel Moskowitz, PhD. At the School for Public Health at the University of California, Berkley in the Electromagnetic Safety News:

"In April, 2018, the International Society of Doctors for the Environment (ISDE) and its member organizations in 27 countries, adopted a declaration calling for a moratorium on the deployment of 5G (fifth generation cellular technology) in the European Union. The declaration is entitled, "5G networks in European Countries: appeal for a standstill in the respect of the precautionary principle."

"We believe it should be unethical to ignore the available evidence waiting a possible "a posteriori" demonstration of health damages in the presence of a present and potentially manageable risk for public health.

The declaration cites language from the 2015 **International EMF Scientist Appeal** which has now been signed by more than 230 scientists who have published peer-reviewed research on EMF and biology or health. Prior to the current controversy about 5G, these experts reported "serious concerns" regarding the ubiquitous and increasing exposure to EMF. Their appeal refers to numerous scientific publications which have shown that EMF "affects living organisms **at levels well below most international and national guidelines.**" These effects include increased cancer risk, neurological disorders, and reproductive harm. The Appeal calls for the strengthening of EMF guidelines and regulatory standards.

There are trillions of dollars of business at stake in fast attention-grabbing media here to seduce you to try it on and for the most part we are told "there's no science that it's bad". Well I beg to differ. Isn't that what the tobacco companies told us? Isn't that what Monsanto decried? If you are upset about the recent air pollution and devastation of the fires, then 5G should really make your hair stand on end and pay attention and take rapid action.

My Granny used to say to me "nothing in life is free", over the years, I realized she was right. What's the cost of 5G?

Here's why the costs of 5G are EPIC:

We know that there is a massive literature, providing a high level of scientific certainty, for each of eight pathophysiological effects caused by non-thermal microwave frequency EMF exposures to human beings. Although 5G sounds sexy, sleek and smart, this is what it will do to us, which has been shown from 12 to 35 reviews on each specific effect:

1. We will become more stupid.
  - a. EMF's attack our nervous systems including our brains leading to widespread neurological/neuropsychiatric effects and possibly many other effects. This nervous system attack is of great concern. Substantial evidence suggests EMF causation of very early onset dementias, including

Alzheimer's, digital and other types of dementias. There is evidence that EMF exposures in utero and shortly after birth can cause ADHD and autism. Each of these effects is produced via the main mechanism of action of microwave/lower frequency EMFs, activation of voltage-gated calcium channels (VGCCs).

2. We will not want to have sex.
  - a. EMF's attack our endocrine (that is hormonal) systems, leading to lowered libido, infertility, and mood disorders. EMF's also deplete the body of melatonin leading to insomnia. You know what you're like with days on end of no good sleep. With 5G you can't unplug the cell phone tower sitting outside your house, it's on 24/7
3. We will age faster.
  - a. 5 G can produce oxidative stress and free radical damage, which have central roles in essentially all chronic diseases and accelerate aging.
4. We will have more frequent cases of cancer.
  - a. EMFs attack the DNA of our cells, producing single strand and double strand breaks in cellular DNA and oxidized bases in our cellular DNA. These in turn produce cancer and also mutations in germ line cells which produce mutations in future generations for both animals and humans, but faster in small animals such as rodents.
5. We are more likely to have a death causing heart attack.
  - a. EMFs also cause other effects including life threatening cardiac effects.
6. We will lose our privacy.
  - a. With 5G artificial intelligence can literally peer inside your home tracking even more data about our habits. They can use this data to further grab your attention through marketing.
7. The natural sounds of birds, insects and small animals may become infertile and die.
  - a. Some studies have shown infertility increases in mice after two months of exposure. If we don't have mice then the hawks, foxes and other animals don't have food and on up the food chain. There have not been enough studies on 5G on our wildlife to really know its effects.



How can 5G truly be considered to have so many detrimental effects? The key to understanding the health implications of 5G can be highlighted in one precious aspect of our body: the voltage-gated calcium channel (VGCC). These channels are in humans, animals and plants and they are crucial for cellular mechanisms of action, cellular firing patterns and cellular communication. These channels have 4 alpha-helices on them, each with 5 protons, totaling 20 positive charges. Since they are embedded in a bi-lipid cell membrane which adds to their electrical conductivity as well as right next to an aqueous solution being the cell's cytoplasm, they are extra-ordinarily sensitive to the forces of the EMFs. Current safety guidelines allow us to be exposed to EMF levels that are something like 7.2 million times too high. That sensitivity is predicted by the physics. Therefore, the physics and the biology are each pointing to the same mechanism of action of non-thermal EMFs. The different effects produced are obviously very deep concerns. They become much deeper and become existential threats when one considers that several of these effects are both cumulative and eventually irreversible. In fact, since the Appeal to 5G was published, the world's largest \$25 million study, conducted by the National Toxicology Program in the US, shows statistically significant increases in the incidence of brain and heart cancer in animals exposed to cellphone radiation at levels below international guidelines.

In effect, 5G in our neighborhoods would create a problem so large that we would become dependent on it. If our natural world became infertile and died away, our moods poor and we had dementia earlier on then we would need even more to depend upon our machines to think for us and to give us fake imagery of something beautiful to distract us from the devastation of our natural world. Sounds a bit like the tobacco industry doesn't it? Creating an addiction that can eventually lead to your own demise so that someone else can profit.

For those who don't have any health effects from EMF/wi-fi there is still the concern for addiction. Technology fulfills our need for stimulation, instant gratification, rapid change in environment and connection with others. We need to be careful as it can stimulate the brain in the same way an addictive substance does and can eventually be more appealing than real contact and intimacy, than real relating or being in nature itself. **In a study that involved over 1,500 professionals throughout the United States and Europe, research found that 40.2% considered Wi-Fi their first priority for luxury or necessity, followed by sex, at 36.6% and alcohol at 14.3%.** In fact, soon physicians may need to come up with yet another diagnosis, "Internet Addiction Disorder or gaming disorder, which is under debate in Japan right now to be a possible new disorder classification for the ICD-11." A fascinating study published January 11th, 2012 entitled, "Abnormal White Matter Integrity in Adolescents with Internet Addiction Disorder: A Tract-Based Spatial Statistics Study" there were actual changes in the white matter functioning of the brain in those with Internet Addiction Syndrome. To see the Abstract of the study go here:

**<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0030253>**

In my medical practice I have seen the following:

- 1) A patient came to me with 5 years of migraine headaches. Her 2 ½ year old daughter also had trouble sleeping. I discovered that she had wi-fi sensitivity. She had her home assessed by a building biologist and he found a wi-fi router to have a lot of EMF in her bedroom. Once she removed the wi-fi router all her headaches were gone and her 2 ½ year old daughter stopped waking her and her husband up nightly. Now the entire family, Mom, daughter and husband can sleep in peace.
- 2) A man came in who was a jeweler. He had bought a new welding machine and during it's first use he was exposed to an electric shock that went up his arm. After that he became electrically hypersensitivity. He had to move out of his home, he had to stop working. When I see him in the office I have to turn off my printer or else he gets heart palpitations and chest pain. Electrical Hypersensitive Syndrome affects approximately 3% of the population. In Russia they have a medical diagnostic code for it. In America we do not.
- 3) A 16-year-old girl comes in for acne. She eats well, she is an "A" student. I can't figure out quite what the problem is. Her Mom says, "my daughter doesn't sleep well". I ask her, "what do you do at night?" She's on her phone looking at beauty photos until 1 or 2 am. She begins to cry. I ask her what's wrong? She says, "I don't know". Her Mom says she's very anxious. I ask her. "do you have any friends, one best friend?", she says "yes". I ask her "how often do you see your friend?" She replies... "we facetime". I ask her... "when do you actually get together with your friend... do you see her on a Friday or Saturday?" She replies, "no, we facetime... I see her maybe once a month."
- 4) A health, fit stay at home Mom comes into my office for anxiety. I ask her what's going on in her life. She tells me "my son was taken to wilderness camp for video game addiction." Her son just graduated from an Ivy League School. His parents live in Belvedere. He is working at a local grocery store, he lacks motivation for larger dreams, he eats dinner in his room with his door closed while he's on video games. The Mom says... it was really traumatizing the Wilderness Camp People came at 3:00 am and took him out of his bed, otherwise he would never go. He fought them really hard.

Medical school did not prepare me for what I am seeing in the world of adolescents. I see about one case like this a week or hear about it. We don't even have a diagnosis code for it. We need to really dig in deep to see if the benefits of 5G and virtual reality in our homes truly benefit humanity or if they add to separation, disturbed brains, addictive behaviors.

Sincerely, Dr. Jacqueline Chan  
Marin Natural Medicine Clinic

RECEIVED  
DEC 05 2018  
TOWN OF FAIRFAX

Martin P. Koeppel, MD  
215 Frustuck Avenue  
Fairfax, California 94930

To Fairfax Planning Board and Fairfax Town Council:

I have been asked to write a letter about the adverse effects of electromagnetic radiation. EMRs and EMFs are known to be damaging to human health. It is not entirely clear whether these adverse effects are caused by EMFs alone or in conjunction with other toxic and carcinogenic substances but it may not matter because all of us are almost constantly exposed to toxins and EMFs; for example: iphone EMFs and automobile exhaust, even if we are smart enough to avoid using our iphones while driving!

Some of the disorders associated with EMFs are headaches, depression, suicidal behavior, rages, violence, memory loss, cardiovascular stress, low sperm count, birth defects, accelerated aging, difficulty concentrating, irritability and cancer. Electro-sensitivity is a heightened reaction to electrical energy causing nausea, headaches and muscle pain. There is much concern about it in Great Britain. In Sweden, 300,000 people suffer from Electro-sensitivity . Studies of EMFs have shown strong evidence of DNA damage and an alteration of calcium ions in the brain and an imbalance of the melatonin-serotonin ratio.

In 2016 in Italy rats exposed to a single low dose of gamma radiation followed by a lifetime of exposure to magnetic fields developed higher rates than expected of breast cancer, leukemia/lymphoma and malignant Schwannoma of the heart. Published in International Journal of Radiation Biology by Dr Lewis Slesin. This study confirms previous studies by Milham, Wertheimer and Cardis.

Elizabeth Cardis and an international team in Spain found cancer promotion in workers exposed to a variety of chemicals and an extremely low frequency of EMFs.

The Venice Resolution in 2008, created by an International Commission for Electromagnetic Safety warned of the need for increased control of EMFs It was signed by 50 peer reviewed scientists.

Additional researchers who found adverse effects and warned against them are Samuel Milham, MD, Paul Rosch, MD, Magda Havas, PhD, William Rea, MD, Eric Braverman, MD, Gerald Hyland, MD, Lennart Hardell, MD, PhD and Niel Cherry.

Dr. Hyland in the renowned medical journal, The Lancet wrote "EMRs harm human health; if it were a food, it would not be licenced. I strongly recommend that we avoid installation of additional devices that create EMFs as in the proposed 5G system.

Sincerely yours,



Martin P. Koeppel, MD

## Linda Neal

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**From:** Norma Fragoso  
**Sent:** Wednesday, December 12, 2018 8:03 AM  
**To:** Linda Neal  
**Subject:** Re: Please send to the Planning Commissioners - Thanks:)

Hi Linda

We can't do anything with this unless town attorney reviews and deems it appropriate.  
Ciao

Sent from my iPad

On Dec 3, 2018, at 8:35 AM, Linda Neal <[lneal@townoffairfax.org](mailto:lneal@townoffairfax.org)> wrote:

**From:** Roberta Anthes [<mailto:robertaanthes@aol.com>]  
**Sent:** Sunday, December 02, 2018 5:15 PM  
**To:** Linda Neal <[lneal@townoffairfax.org](mailto:lneal@townoffairfax.org)>  
**Subject:** Please send to the Planning Commissioners - Thanks:)

Dear Commissioners,

Thank you for hearing us this past Thursday. I am so grateful that you were willing to consider our ideas.

Below please find a copy of San Anselmo's Limited Exceptions Chapter. I spoke on this at the meeting and I want to make sure you get a copy. I believe it's vital to strengthen our chapter, otherwise all the great amendments we make will be more vulnerable to challenge.

From San Anselmo's Ordinance:

(C) **Limited Exceptions for Personal Wireless Service Facilities.** In the event that an applicant claims that strict compliance with the site location guidelines in Section IX (Site Location Guidelines) or the development standards in Section X (Development Standards) would effectively prohibit the applicant's ability to provide personal wireless services, the Planning Commission may grant a limited exception from such requirements to the extent necessary to prevent an effective prohibition when the Planning Commission finds all of the following:

(1) the proposed wireless facility qualifies as a “personal wireless service facility” as defined in 47 U.S.C. § 332(c)(7)(C)(ii), as may be amended or superseded; and

(2) the applicant has provided the Planning Commission with a reasonable and clearly defined technical service objective to be achieved by the proposed wireless facility; and

(3) the applicant has provided the Planning Commission with a written statement that contains a detailed and fact-specific explanation as to why the proposed wireless facility cannot be deployed in compliance with the applicable provisions in this Part 1, the San Anselmo Municipal Code, the General Plan and/or any specific plan; and

(4) the applicant has provided the Planning Commission with a meaningful

comparative analysis with the factual reasons why all alternative locations and/or designs identified in the administrative record (whether suggested by the applicant, the Town, public comments or any other source) are not technically feasible or potentially available to reasonably achieve the applicant’s reasonable and clearly defined technical service objective to be achieved by the proposed wireless facility; and

(5) the applicant has demonstrated to the Planning Commission that the proposed location and design is the least non-compliant configuration that will reasonably achieve the applicant’s reasonable and clearly

defined technical service objective to be achieved by the proposed wireless facility, which includes without limitation a meaningful comparative analysis into multiple smaller or less intrusive wireless facilities dispersed throughout the intended service area.

The Town shall have the right to hire an independent consultant, at the applicant's expense, to evaluate the issues raised by the exception request and shall have the right to submit rebuttal evidence to refute the applicant's claim.

**D. Appeals.** Any interested person or entity may appeal any decision by the approval authority in accordance with the standards and procedures in SAMC, Title 1, Chapter 4, except as modified in this Section VII(D). On the next available meeting date after the appeal period lapses, or as soon as reasonably feasible thereafter, the appellate body shall hold a de novo public hearing to consider and act on the application in accordance with the applicable provisions in the General Plan, any applicable specific plan and all applicable provisions in the San Anselmo Municipal Code. Appeals from an approval will not be permitted to the extent that the appeal is based on environmental effects from RF emissions that comply with all applicable FCC regulations [and also comply with ADA regulations - my input:)].

Thank you again!

Roberta Anthes  
2 Snowden Lane  
415-721-0906

## Linda Neal

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**From:** Valeri Hood <bertmbartsch@yahoo.com>  
**Sent:** Wednesday, December 12, 2018 5:04 PM  
**To:** Michele Gardner; Linda Neal  
**Cc:** Frank Egger; Anahaar; Janet FitzGerald; jess lerner; Melanie Moran; Roberta Anthes; Bonnie McMurry; Kathleen Boggs; Bob Berg; Andy Peri; Christine Tullis; SARAH SPECTOR; Carrie S; Kathrina Kasha Peterson; Stephen Keese; Robert Ernst; Rachael Breeze; Helene Robertson; Marybeth Brangan; Richard Appelbaum; Jane Hall; Victoria Sievers; Linda Hetzel; Aden Liggett; Kim Hahn; Aurora Butterfly  
**Subject:** Martin Koepell Fairfax MD-5G letter given to Council- open time last week- copied to PC Chair Mimi Newton and Linda Neal for the Planning Commission  
**Attachments:** Martin Koeppel MD Fairfax 5G letter.pdf

Martin P. Koeppel, M.D.  
215 Frustuck Avenue Fairfax, California 94930

To Fairfax Planning Board and Fairfax Town Council:

I have been asked to write a letter about the adverse effects of electromagnetic radiation. EMRs and EMFs are known to be damaging to human health. It is not entirely clear whether these adverse effects are caused by EMFs acting alone or in conjunction with other toxic and carcinogenic substances but it may not matter because all of us are almost constantly exposed to all of them, for example: i phone EMR and automobile exhaust (even if we are smart enough to avoid using our i phones while driving)!

Some of the disorders associated with EMFs are headaches, depression, suicidal behavior, rages, violence, memory loss, cardiovascular stress, low sperm count, birth defects, accelerated aging, difficulty concentrating, irritability, cancer.

Electro-sensitivity, another disorder is a heightened reaction to electrical Energy: presenting symptoms are nausea, headaches, muscle pain. There is much concern about it in Great Britain. In Sweden, 300,000 people suffer from it.

There is strong evidence of DNA damage and an alteration of calcium ions in the brain and an imbalance of the melatonin- serotonin ratio associated with EMFs.

In 2016 in Italy rats exposed to a single low dose of gamma radiation followed by a lifetime of exposure to magnetic fields developed higher rates than expected of breast cancer, leukemia/lymphoma and malignant Schwannoma of the heart. (published in International Journal of Radiation Biology by Dr Lewis Slesin. This study confirms previous studies by Milham, Wertheimer and Cardis.

Elizabeth Cardis and an international team in Spain, found cancer promotion in workers exposed to a variety of chemicals and extremely low frequency EMFs.

The Venice Resolution in 2008 was an International Commission for Electromagnetic Safety warned of need for increased control of EMFs. Signed by 50 peer- reviewed scientists.

Additional researchers who found adverse effects: Samuel Milham, MD, Paul Rosch, MD, Magda Havas, PhD, William Rea, MD, Eric Braverman, MD, Gerald Hyland, MD, Lennas Hardell, MD, PhD, Niel Cherry.

I strongly recommend that we avoid installation of additional devices that create increased exposure EMR and EMFs such as Smart Meters, Cell Towers and other devices that add to such exposure.

Sincerely yours,  
Martin P. Koepfel, MD



**Linda Neal**

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**From:** jess lerner <jesslerner8@gmail.com>  
**Sent:** Thursday, December 13, 2018 8:23 AM  
**To:** Linda Neal  
**Subject:** Wireless ordinance recommendations: Chapters 19 and 20

Dear Linda,  
Please forward to the entire Planning Commission today and place on public record. Thank you!

---

Dear Planning Commissioners,

We request that in the process of working on the wireless ordinance, **you recommend keeping Chapters 19 and 20 separate rather than condensing or combining**, based on the recommendations we have provided in writing and public comments.

Please reach out with any questions about this.

I appreciate all your time and attention to this, and look forward to continuing the process next week.

Thank you!  
Jess Lerner

## Linda Neal

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**From:** Mimi Newton <mimi.newton@gmail.com>  
**Sent:** Thursday, December 13, 2018 11:02 AM  
**To:** Ben Berto; Linda Neal  
**Subject:** Fwd: updated list of studies of emf/rf health effects

More on EMFs from our constituents!

In some ways I think we are a bit overwhelmed by all the EMF information. I may still have additional messages here, however, I'd like to include this information in the Planning packet and then ask people NOT to submit redundant material to the Town Council that was already submitted to Planning - maybe we warn folks that redundant material won't be included in the TC or PC packets -

I'm not sure I'd seen citations to these medical studies before, however. So here is this message for now.

Mimi

----- Forwarded message -----

**From:** Valeri Hood <[bertmbartsch@yahoo.com](mailto:bertmbartsch@yahoo.com)>  
**Date:** Thu, Dec 13, 2018 at 7:49 AM  
**Subject:** updated list of studies of emf/rf health effects  
**To:** bert bartsch <[bertmbartsch@yahoo.com](mailto:bertmbartsch@yahoo.com)>

### Science Studies Reporting Adverse Health Effects or Corroborative Results

Lehrer S, Green S, Stock RG. Association between number of cell phone contracts and brain tumor incidence in nineteen U.S. States. J Neurooncol. 2011 Feb;101(3):505-7.

Cardis E, Armstrong BK, Bowman JD, Giles GG, Hours M, Krewski D, McBride M, Parent ME, Sadetzki S, Woodward A, Brown J, Chetrit A, Figuerola J, Hoffmann C, Jarus-Hakak A, Montestruq L, Nadon L, Richardson L, Villegas R, Vrijheid M. Risk of brain tumours in relation to estimated RF dose from mobile phones: results from five Interphone countries. Occup Environ Med. 2011 Sep;68(9):631-40.

INTERPHONE Study Group. Brain tumour risk in relation to mobile telephone use: results of the INTERPHONE international case-control study. Int J Epidemiol. 2010 Jun;39(3):675-94.

Aydin D, Feychting M, Schüz J, Tynes T, Andersen TV, Schmidt LS, Poulsen AH, Johansen C, Prochazka M, Lannering B, Klæboe L, Eggen T, Jenni D, Grotzer M, Von der Weid N, Kuehni CE, Rösli M. Mobile phone use and brain tumors in children and adolescents: a multicenter case-control study. Natl Cancer Inst. 2011 Aug 17;103(16):1264-76..

Hardell L, Carlberg M, Söderqvist F, Mild KH. Case-control study of the association between malignant brain tumours diagnosed between 2007 and 2009 and mobile and cordless phone use. Int J Oncol. 2013 Dec; 43(6):1833-45.

Stein et al. A sentinel case series of cancer patients with occupational exposures to electromagnetic non-ionizing radiation and other agents. *Eur. J. Oncol.*, vol. 16, n. 1, 2011.

Carlberg M, Hardell L. On the association between glioma, wireless phones, heredity and ionising radiation. *Pathophysiology*. 2012 Sep;19(4):243-52.

Carlberg M, Hardell L. Use of mobile and cordless phones and survival of patients with glioma, *Neuroepidemiology*. 2013; 40(2):101-8.

Carlberg & Hardell. Decreased survival of glioma patients with astrocytoma grade IV (glioblastoma multiforme) associated with long-term use of mobile and cordless phones. *Int J Environ Res Public Health*. 2014 Oct 16;11(10):10790-805.

Akhavan-Sigari R, Mazloun Farsi Baf M, Ariabod V, Rohde V, Rahighi S. Connection between Cell Phone use, p53 Gene Expression in Different Zones of Glioblastoma Multiforme and Survival Prognoses. *Rare Tumors*. 2014 Aug 8;6(3):5350

Coureau G, Bouvier G, Lebailly P, Fabbro-Peray P, Gruber A, Leffondre K, Guillamo JS, Loiseau H, Mathoulin-Pélissier S, Salamon R, Baldi I. Mobile phone use and brain tumours in the CERENAT case-control study. *Occup Environ Med*. 2014 Jul;71(7):514-22.

Hardell L, Carlberg M. Mobile phone and cordless phone use and the risk for glioma - Analysis of pooled case-control studies in Sweden, 1997-2003 and 2007-2009. *Pathophysiology*. 2015 Mar;22(1):1-13.

I.Y. Belyaev, E. Markova, L. Hillert, L.O.G. Malmgren, B.R.R. Pers-son, Microwaves from UMTS/GSM mobile phones induce long-lasting inhibition of 53BP1/-H2AX DNA repair foci in human lymphocytes, *Bioelectromagnetics* 30 (2009) 129–141.

Belyaev, Dependence of non-thermal biological effects of microwaves on physical and biological variables: implications for reproducibility and safety standards, in: L. Giuliani, M. Soffritti(Eds.), *European J. Oncol.—Library Non-Thermal Effects and Mechanisms of Interaction between Electromagnetic Fields and Living Matter*, 5, Ramazzini Institute, Bologna, Italy, 2010, pp. 187–218(An ICEMS Monograph). <http://www.icems.eu/papers.htm?f=/c/a/2009/12/15/MNHJ1B49KH.DTL>,\

399. Markova, L.O.G. Malmgren, I.Y. Belyaev, Microwaves from mobile phones inhibit 53BP1 focus formation in human stem cells more strongly than in differentiated cells: possible mechanistic link to cancer risk, *Environ. Health Perspect*. 118 (2010) 394–399.

Hardell L, Carlberg M, Hansson Mild K. Use of cellular telephones and brain tumour risk in urban and rural areas. *Occup Environ Med*. 2005 Jun;62(6):390-4.

Grell K, Frederiksen K, Schüz J, Cardis E, Armstrong B, Siemiatycki J, Krewski DR, McBride ML, Johansen C, Auvinen A, Hours M, Blettner M, Sadetzki S, Lagorio S, Yamaguchi N, Woodward A, Tynes T, Feychting M, Fleming SJ, Swerdlow AJ, Andersen PK. The Intracranial Distribution of Gliomas in Relation to Exposure From Mobile Phones: Analyses From the INTERPHONE Study. *Am J Epidemiol*. 2016 Nov 3.

de Vocht F. Inferring the 1985-2014 impact of mobile phone use on selected brain cancer subtypes using Bayesian structural time series and synthetic controls. *Environ Int*. 2016 Nov 8;97:100-107.

Carlberg M, Koppel T, Ahonen M, Hardell L. Case-control study on occupational exposure to extremely low-frequency electromagnetic fields and glioma risk. *Am J Ind Med*. 2017 May;60(5):494-503.

Hill AB. The environment and disease: association or causation? 1965. *J R Soc Med.* 2015 Jan;108(1):32-7.

Carlberg M, Hardell L. Evaluation of Mobile Phone and Cordless Phone Use and Glioma Risk Using the Bradford Hill Viewpoints from 1965 on Association or Causation. *Biomed Res Int.* 2017;2017:9218486.

2011. Cardis, B. K. Armstrong, J. D. Bowman et al., "Risk of brain tumours in relation to estimated RF dose from mobile phones: results from five interphone countries," *Occupational and Environmental Medicine*, vol. 68, no. 9, pp. 631–640, 2011.

2012. Hardell and M. Carlberg, "Mobile phone and cordless phone use and the risk for glioma—analysis of pooled case-control studies in Sweden, 1997–2003 and 2007–2009," *Pathophysiology*, vol. 22, no. 1, pp. 1–13, 2015.

2008. Cardis, I. Deltour, S. Mann et al., "Distribution of RF energy emitted by mobile phones in anatomical structures of the brain," *Physics in Medicine and Biology*, vol. 53, no. 11, pp. 2771–2783, 2008.

Hardell L, Carlberg M. Mobile phone and cordless phone use and the risk for glioma - Analysis of pooled case-control studies in Sweden, 1997-2003 and 2007-2009. *Pathophysiology.* 2015 Mar;22(1):1-13.

2011. Baan, Y. Grosse, B. Lauby-Secretan et al., "Carcinogenicity of radiofrequency electromagnetic fields," *The Lancet Oncology*, vol. 12, no. 7, pp. 624–626, 2011.

2014. Akhavan-Sigari, M. M. F. Baf, V. Ariabod, V. Rohde, and S. Rahighi, "Connection between cell phone use, p53 gene expression in different zones of glioblastoma multiforme and survival prognoses," *Rare Tumors*, vol. 6, no. 3, article no. 5350, 2014.

2015.

## Linda Neal

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**From:** Mimi Newton <mimi.newton@gmail.com>  
**Sent:** Thursday, December 13, 2018 11:03 AM  
**To:** Ben Berto; Linda Neal  
**Subject:** Fwd: 5G radiation can travel over 6 miles RF traveling across a metal to metal junction generation of a very strong RF signal

----- Forwarded message -----

From: **Valeri Hood** <[bertmbartsch@yahoo.com](mailto:bertmbartsch@yahoo.com)>  
Date: Thu, Dec 13, 2018 at 7:20 AM  
Subject: Fwd: 5G radiation can travel over 6 miles RF traveling across a metal to metal junction generation of a very strong RF signal  
To: bert bartsch <[bertmbartsch@yahoo.com](mailto:bertmbartsch@yahoo.com)>

All- I am reading through articles and this seems an important one.  
Forgive me if I've already sent it to you.  
Valeri

from Sangita 5G radiation can travel over 6 miles  
Everyone working on 5G should read this article (Millimeter Waves Travel More Than 10 Kilometers in Rural Virginia 5G)!

I know the industry is saying that 5G radiation doesn't travel far, but this article published by the IEEE shows that this just isn't true, so please stop repeating it!

The industry says it because it makes good industry PR and provides people with a false sense of security. After all, if radiation from 5G only travels a few meters, why worry? This article shows that **even if 5G is only installed in business districts, nearby neighborhoods will still feel the effects.**

Please do not tell lawmakers that deployment in business districts is "fine". Even if nearby neighborhoods were not also in jeopardy, people should not be forced to be exposed to an environmental hazard in order to conduct business or work in a business district.

This article clearly shows that the millimeter waves that will be employed by 5G, along with 4G, 3G, and 2G will reach quite far from the antennas, resulting in widespread harm to health and the environment.

An effect that has not been considered in discussions about the hazards of wireless technology is the Rusty-bolt effect. I have an article discussing this and RFI in general at [www.electricalpollution.com/RFIdetection.html](http://www.electricalpollution.com/RFIdetection.html). This effect is very important because it results in further RF exposure beyond what would be expected just from deliberate wireless transmissions in the area.

Essentially, **conducted RF traveling across a metal to metal junction with even a little bit of corrosion can result in the generation of a very strong RF signal. This has been called the "Rusty-Bolt Effect".**

Conducted RF results from ambient RF radiation signals being picked up on metal. These ambient RF radiation signals can originate from any source of RF radiation, including any wireless technology or other source of radiofrequency interference (RFI). This source of exposure is increasing rapidly and is very biologically active. 5G would be expected to cause an enormous increase in the amount of RF radiation emitted by "rusty-bolt" sources. Please visit [www.electricalpollution.com/RFIdetection.html](http://www.electricalpollution.com/RFIdetection.html) to learn more.

Best, Catherine

7 Nov 2016 | 16:37 GMT

## Millimeter Waves Travel More Than 10 Kilometers in Rural Virginia 5G Experiment

Previous experiments have focused on cities, because millimeter waves were thought to be of limited use to rural residents

By Amy Nordrum Photo: Hangsong Yan Yunchou Xing (left) and George MacCartney (right) adjust the horn antenna of their

receiver to find the strongest signal during a millimeter wave measurement campaign in August. They are within line of sight

of a transmitter stationed 4.3 kilometers away at the home of their NYU professor, Ted Rappaport.

Advertisement Editor's Picks 5 Myths About 5G

### Millimeter Waves May Be the Future of 5G Phones

A key 5G technology got an important test over the summer in an unlikely place. In August, a group of students from New York University packed up a van full of radio equipment and drove for ten hours to the rural town of Riner in southwest Virginia. Once there, they erected a transmitter on the front porch of the mountain home of their professor, Ted Rappaport, and pointed it out over patches of forest toward a blue-green horizon.

Then, the students spent two long days driving their van up and down local roads to find 36 suitable test locations in the surrounding hills. An ideal pull-off would have ample parking space on a public lot, something not always easily available on rural backroads. At each location, they set up their receiver and searched the mountain air for millimeter waves emanating from the equipment stacked on the front porch.

To their delight, the group found that the waves could travel more than 10 kilometers in this rural setting, even when a hill or knot of trees was blocking their most direct route to the receiver. The team detected millimeter waves at distances up to 10.8 kilometers at 14 spots that were within line of sight of the transmitter, and recorded them up to 10.6 kilometers away at 17 places where their receiver was shielded behind a hill or leafy grove. They achieved all this while **broadcasting at 73 Gigahertz (GHz) with minimal power—less than 1 watt.**

Photo: Hangsong Yan George MacCartney (left) and Jeton Koka (right) observe the signal strength from their receiver on a Keysight E4407B spectrum analyzer before recording a measurement.

"I was surprised we exceeded 10 kilometers with a few tens of milliwatts," Rappaport says. "I expected we'd be able to go a few kilometers in non-line-of-sight but we were able to go beyond ten."

The 73 GHz frequency band is much higher than the sub-6 GHz frequencies that have traditionally been used for cellular signals.

**In June, the Federal Communications Commission opened 11 GHz of spectrum in the millimeter wave range (which spans 30 to 300 GHz) to carriers developing 5G technologies** that will provide more bandwidth for more customers.

Rappaport says their results show that millimeter waves could potentially be used in rural macrocells, or for large cellular base stations.

Until now, millimeter waves have delivered broadband Internet through fixed wireless, in which information travels between two stationary points, but they have never been used for cellular.

Robert Heath, a wireless expert at the University of Texas at Austin, says the NYU group's work adds another dimension to 5G development.

“I think it's valuable in the sense that a lot of people in 5G are not thinking about the extended ranges in rural areas, they're thinking that range is, incorrectly, limited at high carrier frequencies,” Heath says.

In the past, Rappaport's group has shown that a receiver positioned at street level can reliably pick up millimeter waves broadcast at 28 GHz and 73 GHz at a distance of up to 200 meters in New York City using less than 1 watt of transmitter power—**even if the path to the transmitter is blocked by a towering row of buildings.**

Before those results, many had thought it wasn't possible to use millimeter waves for cellular networks in cities or in rural regions because the waves were too easily absorbed by molecules in the air and couldn't penetrate windows or buildings. But Rappaport's work showed that the tendency of these signals to reflect off of urban surfaces including streets and building facades was reliable enough to provide consistent network coverage at street level—outside, at least.

Whether or not their newest study will mean the same for millimeter waves in rural areas remains to be seen. Rappaport says the NYU team is one of the first to explore this potential for rural cellular, and he feels strongly that it could soon be incorporated into commercial systems for a variety of purposes including wide-band backhaul and as a replacement for fiber.

“The community has always been mistaken, thinking that millimeter waves don't go as far in clear weather and free space—they travel just as far as today's lower frequencies if antennas have the same physical size,” Rappaport says. “I think it's definitely viable for mobile.”

Others aren't convinced. Gabriel Rebeiz, a professor of electrical and computer engineering who leads wireless research at the University of California, San Diego, points out that the NYU group ran their tests on two clear days. Rain can degrade 73-GHz signals at a rate of 20 decibels per kilometer, which is equivalent to reducing signal strength 100-fold for every kilometer traveled.

Photo: Ted Rappaport The view from the front porch of Ted Rappaport's home in Riner, Virginia. “Rain at 73 GHz has significant, significant, unbelievable attenuation properties,” he says. “At these distances, the second it starts raining—I mean, misting, if it just mists—you lose your signal.”

Rebeiz says signals would hold up better at 28 GHz, only degrading 6 to 10-fold over a range of 10 kilometers. Millimeter waves will ultimately be more useful in cities, he says, but he doubts they will ever make sense for rural cellular networks: “It's not going to happen. Period.”

George R. MacCartney Jr., a fourth-year Ph.D student in wireless engineering at NYU, thinks millimeter waves could perhaps be used to serve rural cellular networks in five or 10 years, once the technology has matured. One challenge is that future antennas must aim a signal with some precision to make sure it arrives at the user. That's because **millimeter waves reflect off of objects, and can take multiple paths from transmitter to receiver.** But as for millimeter waves making their rural cellular debut in the next few years—“I'd say I'm a little skeptical just because you'd have to have a lot of small antenna elements and you'd have to do a lot of beamforming and beam steering,” he says.

By collecting rural measurements for millimeter waves, the NYU experiment was designed to evaluate a propagation model that the standards group called the 3rd Generation Partnership Project (3GPP) has put forth for simulating millimeter waves in rural areas. That model, known as 3GPP TR 38.900 Release 14, tries to figure out the strength of a millimeter wave signal once it's emitted from a rural base station according to factors such as height of the cell tower, height of the average user, height of any buildings in the area, street width, and the frequency used to broadcast it.

The NYU group suggests that because this model was “hastily adopted” from an earlier one used for lower frequencies, it’s ill-suited to accurately predict how higher frequencies behave. Therefore, according to Rappaport’s team, the model will likely predict greater losses at longer distances than actually occur. Rappaport prefers what’s called a close-in (CI) free-space reference distance model, which better fits his measurements. A representative of 3GPP was not available for comment.

In October, Rappaport presented the group's work at the Association of Computing Machinery’s MobiCom conference and their latest study will be published in the proceedings. In the meantime, it is posted to arXiv.

Protecting our health and the environment by using a hardwired computer in a low RF environment. For more information, see [www.electricalpollution.com](http://www.electricalpollution.com)