

From: [RICHARD BOYD](#)
To: [_CityCouncilListPublic](#)
Subject: [EXTERNAL] Re: Item #16.3 - March 26 City Council meeting: Verizon Cell Tower Appeal
Date: Monday, March 25, 2024 5:42:47 AM
Attachments: [Santa Rosa City Council- SC edits.docx](#)

Please see the attached file.

Santa Rosa City Council
100 Santa Rosa Ave., Santa Rosa, CA 95404
Mayor Natalie Rogers
Vice Mayor Mark Stapp
Council Members Eddie Alvarez,
Dianna McDonald, Victoria Fleming
Chris Rogers, and Jeff Okrepkie

March 25, 2024

Re: Appeal of Verizon proposal for Cell Tower at Colgan Ave site.

Dear Mayor, Vice Mayor, and City Council Members,

I am writing to offer comments on Verizon's response to our Appeal of the Planning Commission approval for a ~~of the~~ 12 antenna cell tower at 244 Colgan Avenue.

SHOT CLOCK

The shot clock has stopped, so you don't have to make an immediate decision on this proposal. This is affirmed by our appeal document, pages 7-9. This will give you time to ask Verizon to reply to the inadequacy of the information in both their proposal and their response to our appeal.

FCC LIMITS

My first comment is with regard to Verizon's statement that nowhere at ground level is the Maximum Permissible Exposure Limit of the Federal Communication Commission exceeded, and in fact that its maximum value is 11.79 percent of that limit. This is certainly an underestimate. The Waterford maps indicate in green the areas in which the MPE is "5 to 100 percent of the MPE." It should be easy to instruct their computer to indicate where the values are at 5, 10, 15, 20, or 100 percent. These percentages will certainly exceed the MPE at higher elevations, even if they never exceed 11.79 percent at ground level.

It would also be important for those maps to indicate what the levels are at 5 to 6 feet above the ground, the height of a typical brain on an adult. The huge volume of research has made it clear that brains are much more sensitive to radiation of all types than are feet. Finally, these percentages don't include contributions from other nearby towers, or scattering from the higher radiation level regions from buildings, which will certainly increase the values at ground level.

Regarding the FCC limits, they are comprised of two numbers, the exposure rate and the time. What is relevant is the product of those, being the total exposure, which also defines the FCC Maximum Permissible Exposure, or MPE. The MPE is the same at either the 30 minute interval or the 6 minute one. For general population MPE, 30 minute exposure is 1 mW/cm² (10,000,000 uW/m²) and for occupational / controlled MPE, 6 minute exposure is 5 mW/cm² (50,000,000 uW/m²). It's also important to note that for the lower frequency ranges of 700 and 850 MHz, MPE's are about half

these levels. However, this needs to be taken into account, since the proposed Verizon cell tower will operate at multiple frequency ranges: 700, 850, 1900, 2100, 3700, and 11,000 MHz. Were the MPE variations with frequency taken into account in the dose rate estimates of the MPE fraction?

Due to its close proximity, we can assume that the maximum dosage of the proposed tower will occur somewhere inside the Costco building. Since that is about 70 feet from the proposed tower and the building is roughly 200 feet wide, this is a reasonable assumption. Lobing effects, which tend to reduce the radiation directly under the tower, can actually increase at 100 or more feet away from the tower. But let's assume for the sake of argument that the maximum exposure is 12.5 percent, a value that more realistically represents the exposure rates for Costco workers.

If a Costco employee works an 8 hour shift, that's 16 half hour segments, each of which is going to impose an additional exposure of 12.5 percent of the MPE. But when multiplied by 16, this means that every Costco employee working near the place of maximum exposure will have received twice the FCC's MPE in a shift. If this is not the case, more detailed maps from Waterford could make the case. But my assumptions are reasonable, and if they are borne out, this tower will exceed the FCC MPE. Similar considerations apply to the residents of the apartments on the other side of Colgan Ave. from the proposed tower site. They receive lower dose rates, but they are radiated continuously day and night.

If that's the case, how many shifts will each Costco employee be able to work before suffering health effects? Some will be affected more than others, but for some the effects will be serious. Unfortunately, this cannot be used as legal justification for rejecting the Verizon tower proposal since Verizon is claiming that MPE levels are not above 11.79 percent anywhere and everywhere at ground level!

TRENDS

Now let's take a closer look at the graphs Verizon submitted to claim their "Gap in Service." I presume what the plots are supposed to show is the increasing usage. I see very little increase in any of the graphs, aside from the one that has the anomalously low first value. Was that selected particularly for that reason? What was the value immediately preceding that one? The fairgrounds data have a large spike, but other than that shows very little increase with time. Is that just associated with the Sonoma County Fair? And others may even indicate a decrease in use. There seem to be seasonal fluctuations in usage, but this means that for some periods they show a decrease, while increasing later. I am concerned that, without more than one year of data, no conclusions about increasing usage can be drawn.

And since I could find no information of dropped calls in the identified service area, I do not believe the data indicate much (certainly not statistically significant) increase in demand. Since this seems to be the primary reason given for the proposed tower, one has to wonder why you should even be considering it.

PHOTOGRAPHS

Then there are the photographs taken from different perspectives to show how insignificant a blot on the skyline the proposed tower would represent. Most of the 8 locations are sufficiently distant from the proposed site that one wouldn't expect much an effect, and none of them would accurately reflect the view from the front windows of the occupants of the apartments on the other side of Colgan Ave. from the tower. Indeed, some appear to have chosen views with a utility pole in the foreground to distort the view the tower, and one of the close ones was taken with a tree just about to block the view of the tower. These photos certainly don't prove the point that the proposed tower would represent no negative aesthetic effect.

There are many other things wrong with this proposal, but the primary reason for having it, to mitigate future demands, does not seem to be supported, and the negative aesthetics are daunting. I also note that the Santa Rosa Zoning Code, section 20-44.060, G-2 states:

“Separation between facilities. No telecommunications tower, providing services for a fee directly to the public, shall be installed closer than two miles from another readily visible, uncamouflaged or unscreened telecommunication tower unless it is a co-located facility, situated on a multiple user site, not readily visible, or technical evidence acceptable to the Director or Commission, as appropriate, is submitted showing a clear need for the facility and the infeasibility of co-locating it on an existing tower.”

There are three macro towers within 2 miles of the proposed Colgan Ave. tower.

For these reasons I strongly urge you to deny Verizon's proposal for this tower.

Yours sincerely,

Richard N. Boyd, Ph.D. (physics)

Professor Emeritus, The Ohio State University

From: [Sidnee Cox](#)
To: [Alvarez, Eddie](#); [Rogers, Natalie](#); [Stapp, Mark](#); [MacDonald, Dianna](#); [Rogers, Chris](#); [Okrepkie, Jeff](#); [Fleming, Victoria](#); [Osburn, Gabe](#)
Cc: [CityCouncilListPublic](#); [Jones, Jessica](#)
Subject: [EXTERNAL] Re: IMPT: Additional info for today about Verizon Permit Appeal and Zoning Regs
Date: Tuesday, March 26, 2024 7:00:43 AM
Attachments: [IMPT- Additional info to City Council about Appeal and Zoning regs.pdf](#)

To: Santa Rosa City Council
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Dianna McDonald, Victoria Fleming
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March 25, 2024

Re: Appeal of Verizon cell tower permit at 244 Colgan Ave.

Dear Mayor Rogers, Vice Mayor Stapp, and City Council members,

Please address the following points this evening when deciding on the Appeal for the Verizon Cell Tower at 244 Colgan Ave.

- 1) The Santa Rosa Zoning Code states: “The intention of the alternatives analysis is to present alternative sites which would minimize the number, size and potential adverse environmental impacts of facilities necessary to provide services. . . . Approval of the project is subject to the decision making body finding that the proposed site results in the least potentially adverse impacts than any feasible alternative site.” (20-44.060(G) (1).) “Multiple telecommunication facilities of reduced heights are encouraged to cover a service area where the visual impacts would be less than a single larger and more visually obtrusive tower.” (20-44.060(F)(13).

Comment:

Verizon identified a number of sites that they claim were investigated for possible location of their facility only a week ago. How could the city have time to analyze this new information in such a short period of time? Verizon has failed to consider the possibility of multiple facilities of reduced heights and is ignoring and not respecting our city’s ordinance. Verizon hasn't weighed the combined coverage of multiple telecommunication facilities of lowered heights and they are required to do so,

according to the zoning code. What would be the least adverse impact if they explored these options?

Moreover, in Verizon's initial application, it was not at all clear in Attachment 2 how Verizon identified the 12 alternative sites or even where they are located. However, in their response to our appeal, it is still not demonstrative that "no other feasible alternative exists." Verizon states that they "mailed proposal letters to over 12 other parcels with only two positive responses and one of those is this project." (Attach. 2, p.17.) Did they follow up with the non-responsive owners?

There are certainly other new options that the staff hasn't even considered to insure the least intrusive means, and these can't be done in this hearing, so this application should be denied. Verizon hasn't met the burden of proof for alternative sites.

- 2) According to the Santa Rosa Zoning Code, the proposed facility must be as small as possible and of minimum height (20-44.030(D); 20-44.060(F), and building-mounted facilities are encouraged over ground-mounted facilities (20-44.060(F). The facility must be screened "to the extent possible" (22-44.030(J) and "views from public areas as well as private properties" must be considered (22-44.060(E)(4). The purpose of the ordinance is to "Protect residential neighborhoods and the visual character of the City from the potential adverse visual effects of telecommunication facility development and antenna installation." (20-44.010(A).

Comment: This will be a highly conspicuous facility that will stick out as it is significantly higher than any buildings and homes around it. It will be a massive tower, extremely close to apartments, condos and homes right across the street. Verizon states it is over 300 feet away from residences but it is actually 261 feet from the closest residences.

- 3) Importantly, installing a facility between the "primary structure and any public or private street adjoining the parcel" (includes alleys) is prohibited "unless sufficiently screened, and no other feasible alternative exists." (20-44.030(E) and 20-44.060(F)(4).
- 4) In general, applicants must make a "good faith effort in achieving co-location." (20-44.060(G)(3)(a).) "Co-location of commercial telecommunication towers and the use of the same site by multiple carriers is required where feasible and found to be desirable." (20-44.060(F)(14).)
- 5) If the facility is within 2 miles of another uncamouflaged tower, co-location is further required "unless it is a co-located facility, situated on a multiple user site, not readily visible, or technical evidence acceptable to the Director or Commission, as

appropriate, is submitted showing a clear need for the facility and the infeasibility of co-locating it on an existing tower.” (20-44.060(G)(2).)

In addition to many other issues raised in our Appeal document that were not sufficiently addressed, Verizon claims that our appeal does not uncover any contradictions with the Code, and we did not present any substantial evidence to warrant denial of the approved facility. This is not true.

From our Appeal document (pg 17), What was the extent of any testing to determine whether the site would fill any purported service gap? Who performed any testing or examination to determine whether the site would fill any service gap? What were the criteria used to determine what constitutes filling a service gap, *i.e.*, if the site would partially remedy a gap, what percentage would be enough? Would 90% be sufficient or must a site fill a potential gap 100% before it's considered satisfactory? What level of follow up did Verizon perform in its attempts to contact property owners to discuss the possibility of constructing a cell tower on their land?

In their search, Verizon claims the alternative location cannot serve the 'Significant Gap' due to distance or low height. These claims do not explain an appropriate investigation of all the options available to provide the least intrusive means to remedy what they're claiming is a gap in service, which is essentially a desire for increased capacity to fulfill what they state as their service objectives.

With regard to our request for **dropped call records and drive by testing**, Verizon states that these requirements only apply if an applicant files a lawsuit against a city for denying a permit and they're claiming a prohibition of service in violation of the Telecommunications Act. Obviously, Verizon cannot provide this evidence and they refuse to do so. This calls their credibility into question, as **there is case law requiring this evidence** to prove Verizon's claim that denial of their permit would be a prohibition of service in violation of the Telecommunications Act.

The issues here, are (a) could the application materials demonstrate a true "prohibition of service" if this permit is denied? (b) has the applicant identified all appropriate, feasible alternatives? and (c) is co-location technically feasible and has the applicant made a good faith effort to achieve co-location?

Due to these important points as well as others discussed in our Appeal document, we believe that the City council has all of the authority it needs to deny this application.

Sincerely,

Sidnee Cox, [REDACTED]
EMF Safety Network, SafeTech4SantaRosa

Paul-Andre Schabracq, [REDACTED]
EMF Safety Network, SafeTech4SantaRosa

Kim Schroeder, [REDACTED]
EMF Safety Network, SafeTech4SantaRosa

Carmen Gonzalez, [REDACTED]
Esplanada Pl. homeowner

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