

**APPEAL APPLICATION  
2016-13**

**PUBLIC COMMENTS  
RECEIVED BY 4:00 P.M.  
MAY 3, 2016**

***RECEIVED AFTER 10:00 A.M. ON APRIL 26, 2016***

## Jonathan Atkinson

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**From:** Mary Gourley  
**Sent:** Tuesday, April 26, 2016 10:52 AM  
**To:** John Eder; Patrick Slayter; Robert Jacob; Sarah Glade Gurney; Una Glass; unaglass@coastwalk.org (unaglass@coastwalk.org)  
**Cc:** Lawrence McLaughlin; Kenyon Webster; Jonathan Atkinson  
**Subject:** FW: Use Permit – Radio Tower in the Community Facilities District- File No. 2015-126  
**Attachments:** 2016 04-26 Letter to Clerk Gourley.pdf; KOWS RG Comments.pdf

Mary C. Gourley, MMC, City Clerk

City of Sebastopol

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OFFICE HOURS: Monday – Thursday – 7:00 am – 5:30 pm (Closed 12:00 – 12:30 pm for Lunch)



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**From:** Kate E. Hutchins [mailto:Hutchins@perrylaw.net]  
**Sent:** Tuesday, April 26, 2016 10:38 AM  
**To:** Mary Gourley <mgourley@cityofsebastopol.org>  
**Cc:** Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>  
**Subject:** Use Permit – Radio Tower in the Community Facilities District- File No. 2015-126

Dear Ms. Gourley,

Attached please find today's correspondence from Leslie Perry and a report from Grasseti Environmental Consulting. Thank you.

PERRY  
JOHNSON  
ANDERSON  
MILLER &  
MOSKOWITZ  
LLP ATTORNEYS AT LAW

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April 26, 2016

VIA ELECTRONIC MAIL

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Sarah M. Lewers  
Megan J. Lightfoot

Re: Use Permit – Radio Tower in the Community Facilities District  
File No. 2015-126

Dear Ms. Gourley:

Our office has been retained by Sebastopol Hills Alliance for Rural Preservation (SHARP) with regard to the above-referenced Use Permit application. Specifically, we have been asked to evaluate the City's compliance with the California Environmental Quality Act (CEQA).

We have reviewed the file materials, the staff report that was submitted to the Planning Commission and the materials submitted by our client. Of course, we have also carefully analyzed the legal requirements imposed by CEQA as they relate to reliance on a categorical exemption. We have also reviewed the expert report submitted on behalf of SHARP by Grassetti Environmental Consulting. All of the foregoing demonstrate, beyond doubt, this project cannot proceed on the basis of a categorical exemption. Neither of the exemptions, on their face, support use for such a project. The City's attempt to fit this project into an exemption evidences a complete failure to appreciate the very purpose of CEQA.

“CEQA embodies our state's policy that ‘the long-term protection of the environment ... shall be the guiding criterion in public decisions.’ Architectural Heritage Assn. v. County of Monterey (2004) 122 Cal.App.4th 1095, 1100; Public Resources Code § 21001, subd. (d). From the earliest case public agencies have been instructed to interpret CEQA so as to afford the fullest possible protection to the environment. Friends of Mammoth v. Board of Supervisors (1972) 8 Cal.3d 247; CEQA Guideline § 15003(f).

It follows that where there is any reasonable possibility that a project or activity may have a significant effect on the environment, an exemption would be improper. Wildlife Alive v. Chickering (1976) 18 Cal.3d 190, 205–206. This principle of interpretation is embodied in the Guidelines, which state that CEQA should be interpreted to “afford the fullest possible protection to the environment within the reasonable scope of the statutory language.” (Guidelines § 15003, subd. (f); see also

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Laurel Heights Improvement Assn. v. Regents of University of California (1988) 47 Cal.3d 376, 390; and Castaic Lake Water Agency v. City of Santa Clarita (1995) 41 Cal.App.4th 1257, 1268 [rejecting “an attempt to use limited exemptions contained in CEQA as a means to subvert rules regulating the protection of the environment”].)

When interpreting an exemption “a term that does not have a clearly established meaning, such as the exemption for existing ‘facilities,’ should not be so broadly interpreted so to include a class of businesses that will not normally satisfy the statutory requirements for a categorical exemption, even if the premises on which such businesses are conducted might otherwise come within the vague concept of a ‘facility.’” Azusa Land Reclamation Co. v. Main San Gabriel Basin Watermaster (1997) 52 Cal.App.4th 1165, 1192-93.

The City is relying on Class 1 and Class 3 exemptions. (CEQA Guidelines §§ 15301 and 15303). Class 1 is inapplicable on its face. It clearly applies only to existing facilities. Azusa instructs that the apparent rationale for the existing facilities exemption is that the environmental effects of the operation of such facilities must already have been considered. Clearly, the effects of a 70 foot tower have never been considered. Here, the City has characterized the site of its water tanks as a facility. A site, as was made clear in Azusa, is not a facility.

Class 3 would only apply if this 70-foot tower could be deemed a “small” facility. To look only at the footprint and ignore the extraordinary height of this new facility is a disingenuous attempt to avoid your mandated responsibility to comply with CEQA. By any objective and fair assessment a 70-foot tower that will soar over everything else in the area and be seen for miles around cannot be characterized as “small.” This exemption uses modifiers like “small” and “minor” to define the scope of its reach. Your own zoning ordinance makes it clear that this tower is neither small, nor minor. Section 17.08.121 defines a “minor” telecommunications facility as no greater than 35 feet and a “major” facility as between 35 and 100 feet. Your own ordinances therefore rely on the height of the structure, not its footprint, to determine its significance.

That carries forward to the provisions of Chapter 17.100 (General Provisions Relating to Telecommunications Facilities and Minor Antenna). The primary purpose of this Chapter is to “protect the visual quality of the city from potential adverse effects of telecommunications facility development...” Section 17.100.010(G) recognizes that for major facilities, environmental review and mitigation measures may be required. If mitigation measures may be required, then a categorical exemption is not sufficient. Keep in mind that categorical exemptions are based upon the determination of the Resources Agency that, barring unusual circumstances, they will never have an impact and will never require environmental review or mitigations.

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Section M of Chapter 17.100 addresses the need to consider the location in order to minimize visibility. Subsection M(3) prohibits the installation in certain locations, including at a location readily visible from property designated as scenic unless there is a finding of no feasible alternative. The property surrounding the tower parcel has been designated by the County for heightened visual protection. Sonoma County Zoning Code § 26-90-070. Enclosed herewith is an Assessor's Parcel Map highlighting the area designated by the County for scenic protection. Although the tower parcel is not within the boundary, it is likely excluded only because it is owned by the City and therefore not subject to County land use controls. Regardless, the actual tower will be situated within a few feet of the designated area. This alone requires the City undertake actual environmental review and not rely on an exemption.

That scenic designation, when considered in the context of the City's own scenic and open space protections, clearly take this project out of the categorical exemption arena. Chapter 17.92 prohibits the siting of a tower in a scenically identified zone unless there is no technically feasible alternative location.

Chapter 17.100 contains a detailed set of requirements to assure visual impacts have been addressed. This subsection recognizes that visual impacts potentially inherent from telecommunications facilities and requires, among other things, a complete visual analysis. The facilities are to be designed so as to reduce visual impacts to the extent feasible. All this is inconsistent with reliance on a categorical exemption that is limited to projects that will, by their very nature, have no impacts.

The Staff report to the Planning Commission concedes in several locations that the Project would have a visual impact. For example, at page 7 Staff reports that "the construction of the radio tower would have a visual impact on the area, as it would consist of metal and have a height of 70 feet. The radio tower would be visible from adjacent properties and Pleasant Hill Road." The Azusa Court relied on Staff's comments that there was a reasonable possibility of impact to groundwater in rejecting reliance on a categorical exemption.

As was pointed out by Mr. Grassetti, it is a violation of CEQA to rely on a categorical exemption when mitigation measures are required.

An agency should decide whether a project is eligible for a categorical exemption as part of its preliminary. In short, an agency cannot mitigate its way around a categorical exemption. Salmon Protection and Watershed Network v. County of Marin (2004) 125 Cal.App.4<sup>th</sup> 1098, 1102.

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Mr. Grassetti lists a number of conditions that were imposed to mitigate potential impacts, and I will not repeat them here. However, one such condition stands out as the brightest example of why this Project is not CEQA compliant. Condition 15 states:

“The radio tower shall be painted flat green while elements which rise above the horizon shall be painted a blue gray color that matches the typical sky color at the location, unless otherwise approved by the Planning Commission.”

This is clearly a condition that is imposed to mitigate a potential impact and therefore renders the categorical exemption inappropriate on its face. Moreover, the very nature of this condition/mitigation measure demonstrates the fallacy as it is imposed without having environmental review. It first assumes there is an impact to be addressed and then assumes, without any analysis that this condition will achieve some level of mitigation. The tower will be visible from multiple vantage points. From each, the backdrop will be different. For some virtually the entire tower will be silhouetted against the sky. For others it will be partially sky and partially vegetation but never the same. How will it be decided where to place the green and where to place the blue? The condition requires a blue gray to match the typical sky color. What color will that be? What is a typical sky color? What are the impacts on a non-typical day?

Not considered by the City is whether the Project would be excluded from a categorical exemption by one of the listed exceptions. Most notably, Guideline § 15300.2(a), which addresses the location of projects, makes clear that a project that may be insignificant on some locations, could be significant in a more sensitive area. As noted above, this location has been identified by the County for its scenic character and the need for its protection.

The most oft cited exception to the categorical exemptions is the significant impact exception. Guideline § 15300.2(c). It states:

“A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.”

For all the reasons discussed above, this Project would necessarily fall within this exception. The large and unanimous public outcry from those residing in the vicinity demonstrates that a 70-foot tower in this rural and scenic area is unusual. See Lewis v. Seventeenth Dist. Agricultural Assn., (1985) 165 Cal.App.3d 823.

The City has a well-documented and self-proclaimed attention to environmental issues. It is difficult, therefore, to understand the motivation for ignoring the basic

Clerk Gourley  
April 26, 2016  
Page 5

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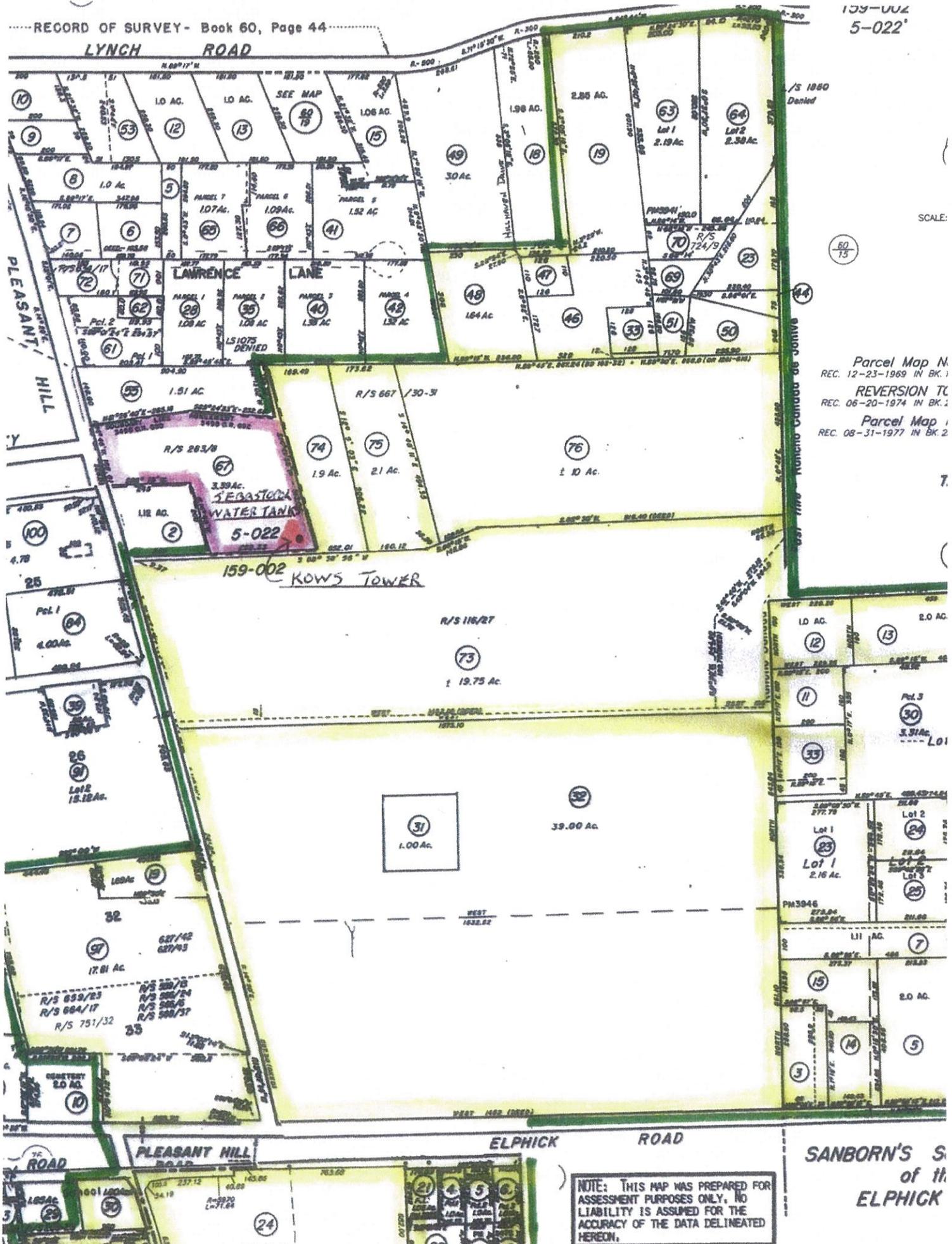
requirements of CEQA and its attempt to rely on exemptions that so clearly do not apply. This application should be denied outright given the widespread opposition from the neighboring residents. If not, then it must be returned to Staff for CEQA compliance. Having practiced CEQA law for many years and litigated the full range of cases, there is no doubt in my mind that a Court will never sanction the current state of environmental review for this project.

Very truly yours,



Leslie R. Perry

LRP:kh  
Encl.  
Cc: City Attorney Larry McLaughlin



SCALE:

Parcel Map N  
REC. 12-23-1969 IN BK. 1  
REVERSION TO  
REC. 06-20-1974 IN BK. 1  
Parcel Map 1  
REC. 08-31-1977 IN BK. 2

7.

NOTE: THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA DELINEATED HEREON.

SANBORN'S S.  
of H.  
ELPHICK



Honorable Councilmembers  
City of Sebastopol  
7120 Bodega Avenue  
Sebastopol, CA 95472

April 25, 2016

**SUBJECT: PEER REVIEW OF PROPOSED CEQA CATEGORICAL EXEMPTIONS FOR KOWS RADIO TOWER PROJECT**

Honorable Councilmembers,

Grassetti Environmental Consulting (GECO) has been retained by Sebastopol Hills Alliance for Rural Preservation (SHARP) to conduct a peer review of the proposed CEQA Categorical Exemptions for the KOWS Sebastopol radio tower project to be located on a City-owned hilltop parcel off of Pleasant Hill Road. This review is based on an analysis of information contained in the City Planning Commission's February 23, 2016 staff report, as well as photo-simulations and other information provided by SHARP members. The purpose of this review is to determine the appropriateness/applicability of the exemptions to the proposed project.

As Principal of GECO, I have personally prepared this analysis on the basis of my 32+ years of experience preparing and reviewing CEQA documents and presenting numerous CEQA workshops to agency staff. My qualifications are attached to this letter (Attachment A).

#### DESCRIPTION OF PROPOSED PROJECT

The project as described in the Planning Commission Staff Report is construction of a 70-foot-tall steel lattice tower and placement of four monopole antennas on the upper reaches of tower (at elevations of 46, 54, 62, and 70 feet). The tower would be constructed on the southeast corner of a fenced 3.39-acre City-owned property the top of a hill that currently houses two large steel water tanks, which are surrounded by mature trees. The tower would be constructed under a lease agreement with the City. The 2-foot by 2-foot by 2-foot triangular tower would be painted a flat green and supported on concrete footings. The project would involve digging an 8-foot square by 4-foot deep hole for construction of the foundations. The tower would be powered by extension of lines to existing electrical power at the site, and would include a solar-powered battery back-up electrical system. A 15-watt transmitter and associated equipment also would be constructed in a 4-foot by 4-

foot box to be located on the concrete pad, and a 300-foot trench would be dug for the power connection. The site is surrounded by agricultural and rural residential land uses.

#### PROPOSED CEQA CATEGORICAL EXEMPTIONS

The City proposes to exempt the project from CEQA review under two Categorical Exemptions, the Class 1 exemption for existing facilities, and the Class 3 exemption for small structures (CEQA Guidelines Sections 15301 and 15303, respectively). Specifically, the staff report states:

The application is categorically exempt from the requirements of the California Environmental Quality Act (CEQA), pursuant to the following:

15301: Existing Facilities: Class 1 consists of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination.

15303: New Construction or Conversion of Small Structures: Class 3 consists of construction and location of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; and the conversion of existing small structures from one use to another where only minor modifications are made in the exterior of the structure.

#### ANALYSIS OF APPLICABILITY OF PROPOSED EXEMPTIONS

As described by the Staff in its report to the Planning commission, the Planning Commission and City Council) must find whether or not the project as proposed meets the criteria for the identified exemption categories. The discussion below is intended to provide the City with a detailed analysis of this question.

##### Class 1 Exemption

This exemption explicitly applies to existing structures. The proposed tower is a new structure and, therefore, does not conform to the requirements of this exemption. The exemption does allow some modifications of existing structures. The City staff is proposing considering the tower to be a modification of the existing water tanks. The tower, per the plans included in the Planning Commission Staff Report, is not proposed to be located on the tanks, nor is it in any way functionally related to the tanks, therefore it cannot be considered to be a modification of those existing facilities. It is clearly a new facility on a currently unused area of the City-owned site. Further, it does not comport with any of the numerous examples of existing facilities listed in Guidelines Section 15301 (a-p).

Based on the above, it is my professional opinion, supported by substantial evidence, that the Class 1 exemption is not applicable to this project.

The Class 1 exemption also includes a number of exceptions. Because the project, on its face, does not fit into the exemption, the applicability of the exceptions is not discussed here. The exceptions are discussed with respect to the Class 3 exemption, below.

### Class 3 Exemption

The applicability of the Class 3 exemption to the proposed project is dependent on a number of factors:

- 1) Does the project meet the definition of a “small structure”?
- 2) If the project is a small structure, do any of the exceptions to the exemption apply? These exceptions include:
  - a) Location. Per CEQA Guidelines Section 15300.2(a), “Classes 3, 4, 5, 6, and 11 exemptions are qualified by consideration of where the project is to be located- a project that is normally insignificant in its impact on the environment may in a particularly sensitive environment be sensitive. Therefore, these classes are considered to apply.....except where the project may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted....”
  - b) Cumulative Impact. “All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.” (CEQA Guidelines Section 15300.2(b))
  - c) Significant Effect. “A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.” (CEQA Guidelines Section 15300.2(c)) The California Supreme Court recently clarified the application of this exception as having two tests (Berkeley Hillside Preservation v. City of Berkeley, 2015); 1) it is applicable if a project would be likely to have a significant impact to the physical environment; and, 2) it is applicable is if there may be a significant impact but only if that impact would be due to unusual circumstances.
  - d) Scenic Highways. “A categorical exemption shall not be used for a project which may result in damage to scenic resources....within a....designated state scenic highway.” (CEQA Guidelines Section 15300.2(d))

e) Historical Resources. A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.” (CEQA Guidelines Section 15300.2(f))

The applicability of this exemption to the project in light of these considerations is discussed below.

#### Definition of “Small Structure”.

The project is not subsumed or anticipated in any of the examples listed in Guidelines Section 15303 (a-f). Therefore we must independently determine whether the project meets the definition of a “small structure”. The project has a small footprint and is dimensionally small with one exception, its height. None of the examples of “small projects” provided in the exemption discussion would have a height of more than 2-3 stories, compared with the project’s 5-6-story height. In evaluating whether a project is a “small structure” per CEQA, all of the dimensions must be considered. Considering the unusual height of the tower in the context of surrounding structures, none of which exceed around 35 feet, it appears that the 70-foot tower does not meet the exemption’s definition of a “small structure”.

#### Applicability of Exceptions to the Exemption.

If the tower were considered a “small structure” per this exemption, then a determination would need to be made as to whether a fair argument can be made that any of the exceptions to the exemption apply. As discussed below, several of the exceptions to this exemption appear to apply to this project.

**Project Location and Scenic Highway Exceptions:** SR 116 from Highway 1 to Sebastopol has been designated a State Scenic Highway by Caltrans ([http://www.dot.ca.gov/hq/LandArch/16\\_livability/scenic\\_highways/index.htm](http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm)). The project site and surrounding parcels are located in the protected viewshed of State Route (SR) 116 Scenic Corridor, as determined by the Sonoma County Zoning Ordinance. Most of the parcels adjacent to the site on the south and east (the sides from which the tower would be most visible) have a combined County zoning designation of LG/116, which indicates that the parcel is in the Scenic Highway Corridor (see Attachment B to this letter); some of the parcels directly to the southwest of the site also have that designation.

As stated in the Sonoma County Code, Section 26-90-070, “The purpose of the Highway 116 Scenic Corridor is to provide for the protection and enhancement of the scenic corridor along State Route 116 in Sonoma County.” The hill upon which the tower would be located is more prominent in the viewshed than any of the surrounding County parcels with the LG/116 zoning. Therefore the site is within a designated sensitive location where the project could have a potentially significant visual impact. Absent a detailed visual

assessment of the project with respect to the Highway 116 Scenic Corridor, the site must be considered a sensitive component of that corridor. (Such a detailed visual assessment would be required if a similar project were proposed on one of the adjacent County-jurisdiction parcels, per Section 26-90-070 (b) of the County Code.)

Based on the above analysis, and absent a detailed viewshed analysis with findings to the contrary, it is my professional opinion that there is a fair argument that both the Project Location and Scenic Highway exceptions to the Class 3 exemption would apply to this project.

**Cumulative Impact Exception:** The appellant has noted that under the Federal Communications Act, once a site has been approved for a radio tower, other proposed towers would be encouraged to locate at the same site. We note that the proposed City Conditions of Approval include a condition limiting the site to solely this tower. However, federal law may have primacy over local approval conditions. In such a case, significant cumulative impacts are possible. We suggest that the City Attorney review the applicable regulations and determine whether or not the City's proposed condition of approval with respect to co-location of radio towers is actually enforceable. If it is not enforceable, then there is the potential for a cumulative visual impact.

**Significant Effect Exception:** As discussed above, this exception requires findings of both an unusual circumstance and a possible significant impact in order to apply. There are three possible unusual circumstances associated with this project:

- As described above, the radio tower itself is unusual in its height.
- The site is in the County-designated Highway 116 Scenic Corridor, and,
- The site is on a prominent hill, which makes it unusually visually prominent.

A possible fourth unusual circumstance would apply if it were determined that the City would not be able to limit cumulative placement of other towers on the site once this tower is approved.

The second test for this exception is whether the project may have a significant adverse impact to the physical environment. SHARP has prepared and submitted to the City under separate cover a series of detailed photo-simulations of the project from various public and private viewpoints. It is my professional opinion that those simulations indicate that the project, due to its 70-foot height and location atop a prominent hill, may have a significant visual impact to views from nearby roads and homes.

Therefore both tests for significant impacts would be satisfied and the exception to the exemption appears to apply to this project.

**Historic Resources Exception.** To our knowledge, the site has not been surveyed for the

presence of cultural resources. Although much of the city parcel has been disturbed for construction of the water tanks, the portion of the hill where the project would be located does not appear to have been substantially altered from historic conditions. Given the proposed project's excavation of an eight-by-eight foot pit four feet deep for the tower pad, plus 300 feet of power cable trenching, and given the prominence of the hill may have made it attractive to pre-historic Native American residents of the area, it is possible that cultural resources may be encountered during construction. A cultural resources assessment should be prepared for the site, or mitigations required in case of construction encountering any prehistoric resources. Absent this assessment and/or mitigation, this exception may apply.

#### Use of Exemptions with Mitigation Measures

CEQA case law prohibits the adoption of an exemption if mitigation measures are required to assure that the project would have no significant adverse impacts to the physical environment (See *Salmon Protection and Watershed Network v. County of Marin*, 23 Cal.Rptr.3d 321 [2004] 125 Cal.App.4th 1098). A review of the proposed project conditions listed in the Planning Commission Staff Report (Use Permit 2015-126) indicates that a number of those conditions are, in fact, mitigation measures intended to assure that the project's impacts do not exceed a less-than-significant level. This is acknowledged in item 9 on p. 9 of the proposed CUP, which states,

*That the project is subject to several conditions of approval that are intended to ensure that it does not have an unacceptable detrimental impact on the site and surrounding uses, and includes a condition, which only allows KOWS to install antennas on the radio tower, and prohibits other telecommunications providers from making improvements on the site.*

The recommended conditions of approval that constitute mitigation measures include:

**Condition 15.** The radio tower shall be painted flat green while elements which rise above the horizon shall be painted a blue gray color that matches the typical sky color at that location, unless otherwise approved by the Planning Commission.

**Condition 18.** This approval is only for the KOWS antenna and related facilities. KOWS is not authorized to install or allow the installation of any other antennas or facilities on the radio tower or at the site.

**Condition 20.** The facility shall be designed and operated in such a manner so as to minimize the risk of igniting a fire or intensifying one that otherwise occurs to the satisfaction of the Fire Chief, pursuant to Section 17.100.010.S of the Zoning Ordinance. All tree trimmings and trash generated by construction of the facility shall be removed from the property and properly disposed of prior to Building

Permit finalization or commencement of operation, whichever comes first.

**Condition 22.** The facility shall be constructed and operated in such a manner as to minimize the amount of disruption caused the residents of nearby homes and the users of any nearby recreational areas such as public parks and trails, pursuant to Section 17.100.010.U of the Zoning Ordinance. To that end all the following measures shall be implemented: (1) Outdoor noise producing construction activities shall only take place on weekdays (Monday through Friday) between the hours of 7:30 a.m. and 5:30 p.m. unless allowed at other times by the Planning Commission; (2) Backup generators shall only be operated during power outages and for testing and maintenance purposes. Noise attenuation measures shall be included to reduce noise levels to an exterior noise level of at least an LDN of 60 DB at the property line and an interior noise level of an LDN of 45 DB; and (3) Traffic at all times be kept to an absolute minimum, but in no case more than two round trips per day on an average annualized basis once construction is complete.

In addition, as discussed above, we would recommend that cultural resources mitigation be applied to the site unless an existing study shows that the presence of such resources is very unlikely at the site.

Given the need for mitigation measures and in consideration of the SPAWN decision referenced above, the project would not be exemptable under CEQA.

#### CONCLUSIONS

As detailed above, there is substantial evidence that the proposed Class 1 and Class 3 exemptions are not applicable to the project. In addition, given the apparent need for mitigation measures to assure that the project impacts would be less-than-significant, it is likely that no exemptions would be applicable to the project. Therefore, in my professional opinion, an Initial study should be prepared for the project. Please feel free to contact me if you would like to discuss any of the analyses in this letter.

Sincerely



Richard Grassetto  
Principal

Attachments: Grassetto Qualifications, Zoning Information

GRASSETTI QUALIFICATIONS

**Richard Grassetti**

PRINCIPAL

*Expertise*

- CEQA/NEPA Environmental Assessment
- Project Management
- Geologic and Hydrologic Analysis

*Principal Professional Responsibilities*

Mr. Grassetti is an environmental planner with over 32 years of experience in environmental impact analysis, project management, and regulatory compliance. He is a recognized expert on California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) processes. He also has served as an expert witness on CEQA and planning issues. Mr. Grassetti regularly conducts peer review and QC/QA for all types of environmental impact analyses, and works frequently with public agencies, citizens groups, and applicants. He has managed the preparation of over 60 Federal and state environmental impact assessment documents, as well as numerous local agency planning and permitting documents. Mr. Grassetti also has prepared over 300 technical analyses for these documents. He has analyzed the environmental impacts of a wide range of projects including infrastructure improvements, ecological restoration projects, waste management projects, mixed-use developments, energy development, military base reuse projects, and recreational facilities. In addition to his consulting practice, Mr. Grassetti regularly conducts professional training workshops on NEPA and CEQA compliance, and is a lecturer at California State University, East Bay, where he teaches courses on environmental impact assessment.

*Professional Services*

- Management and preparation of all types of environmental impact assessment and documentation for public agencies, applicants, citizens groups, and attorneys
- Peer review of environmental documents for technical adequacy and regulatory compliance
- Expert witness services
- Assisting clients in Federal and state environmental impact assessment process compliance
- Preparation of technical analyses for impact assessments

## GRASSETTI QUALIFICATIONS

- Preparation of project feasibility, opportunities, and constraints analyses, and mitigation monitoring and reporting plans

### *Education*

University of Oregon, Eugene, Department of Geography, M.A., Geography (Emphasis on Fluvial Geomorphology and Water Resources Planning), 1981.

University of California, Berkeley, Department of Geography, B.A., Physical Geography, 1978.

### *Professional Experience*

1992-Present	Principal, GECO Environmental Consulting, Berkeley, CA
1994-2013	Adjunct Professor, Department of Geography and Environmental Studies, California State University, East Bay, Hayward, CA
1988-1992	Environmental Group Co-Manager/ Senior Project Manager, LSA Associates, Inc. Richmond, CA
1987-1988	Independent Environmental Consultant, Berkeley, CA
1986-1987	Environmental/Urban Planner, City of Richmond, CA
1982-1986	Senior Technical Associate - Hydrology and Geology - Environmental Science Associates, Inc. San Francisco, CA
1979-1981	Graduate Teaching Fellow, Department of Geography, University of Oregon, Eugene, OR

### *Professional and Certifications*

Member and Past Chapter Director, Association of *Affiliations* Environmental Professionals, San Francisco Bay Chapter

Member, International Association for Impact Assessment

## GRASSETTI QUALIFICATIONS

### *Publications and Presentations*

Grassetti, R. *Understanding Environmental Impact Assessment – A Layperson's Guide to Environmental Impact Documents and Processes*. 2002 (Revised 2011)

Grassetti, R. *Round Up The Usual Suspects: Common Deficiencies in US and California Environmental Impact assessments*. Paper Presented at International Association for Impact Assessment Conference, Vancouver, Canada. May 2004.

Grassetti, R. *Developing a Citizens Handbook for Impact Assessment*. Paper Presented at International Association for Impact Assessment Conference, Marrakech, Morocco. June 2003

Grassetti, R. *CEQA and Sustainability*. Paper Presented at Association of Environmental Professionals Conference, Palm Springs, California. April 2002.

Grassetti, R. and M. Kent. *Certifying Green Development, an Incentive-Based Application of Environmental Impact Assessment*. Paper Presented at International Association for Impact Assessment Conference, Cartagena, Colombia. May 2001

Grassetti, Richard. *Report from the Headwaters: Promises and Failures of Strategic Environmental Assessment in Preserving California's Ancient Redwoods*. Paper Presented at International Association for Impact Assessment Conference, Glasgow, Scotland. June 1999.

Grassetti, R. A., N. Dennis, and R. Odland. *An Analytical Framework for Sustainable Development in EIA in the USA*. Paper Presented at International Association for Impact Assessment Conference, Christchurch, New Zealand. April 1998.

Grassetti, R. A. *Ethics, Public Policy, and the Environmental Professional*. Presentation at the Association of Environmental Professionals Annual Conference, San Diego. May 1992.

Grassetti, R. A. *Regulation and Development of Urban Area Wetlands in the United States: The San Francisco Bay Area Case Study*. Water Quality Bulletin, United Nations/World Health Organization Collaborating Centre on Surface and Ground Water Quality. April 1989.

Grassetti, R. A. *Cumulative Impacts Analysis, An Overview*. Journal of Pesticide Reform. Fall 1986.

1986, 1987. Guest Lecturer, Environmental Studies Program, University of California, Berkeley.

## GRASSETTI QUALIFICATIONS

### REPRESENTATIVE PROJECT EXPERIENCE

#### IMPACT ASSESSMENT REGULATORY COMPLIANCE SEMINARS

Mr. Grassetto has conducted numerous CEQA and NEPA compliance seminars for entities including:

- Alameda County Waste Management Authority
- San Francisco County Transportation Authority
- West Bay Sanitary District
- North Coast Resource Management, Inc.
- Element Power Company
- Tetra Tech Inc.
- Impact Sciences Inc.
- Northwest Environmental Training Center (over 10 workshops)
- California State University East Bay (14 years teaching Environmental Impact Assessment)

#### PREPARATION OF ENVIRONMENTAL IMPACT ASSESSMENT DOCUMENTS

*Prospect Island Restoration Project.* Mr. Grassetto is providing CEQA guidance and editing for an EIR on a proposed 1400-acre fisheries enhancement project in the northern Sacramento/San Joaquin River Delta. Major issues include water quality, biological resources, and construction impacts. Client: Wetlands and Water Resources/Stillwater Sciences, for California Department of Water Resources.

*Upper Putah Creek Restoration Project Program EIR.* Mr. Grassetto is managing preparation of a Program Environmental Impact Report on restoration of approximately 21 linear miles of stream channel of Putah Creek, near Davis, CA. Major issues include biological resources, water quality, and land use compatibility. Client: Wetlands and Water Resources, for the Putah Creek Conservancy.

*Salt River Ecosystem Restoration Project EIR.* Mr. Grassetto is managing preparation of an Environmental Impact Report for the restoration of a large area of former marsh and open channel near Ferndale in Humboldt County. The project includes creation of a new seven-mile-long river channel and a 400-acre wetland restoration. Major issues include biological resources, land use, hydrology/flooding, and construction impacts (noise, air quality, traffic.). Client: Humboldt County Resource Conservation District.

*Aramburu Island Shoreline Protection and Ecological Enhancement Project Initial Study.* Mr. Grassetto is managing preparation of an Initial Study for a proposal by the Audubon Society to stabilize the shoreline and improve bird and seal habitat on the 34-acre Aramburu Island site in Marin County. Major issues include biological resources, hydrology/flooding, and construction impacts. Client: Wetlands and Water Resources.

*Forward Landfill Expansion Project EIR.* Mr. Grassetto is managing preparation of an EIR for a 170-acre expansion of the Forward Landfill in San Joaquin County. This is the third EIR that Mr. Grassetto, has prepared for this landfill over a period of 15 years.

## GRASSETTI QUALIFICATIONS

Major issues include air quality, health and safety, biological resources, and traffic. Client: San Joaquin County Community Development Department.

*San Francisco PUC WSIP Projects.* Mr. Grassetto assisted in the preparation of the San Francisco Public Utility Commission's Water Supply Improvement Project Program EIR, as well as two other CEQA documents for smaller projects under that program. Major issues include hydrology, water supply, and fisheries. Client: Water Resources Engineering/Orion Associates.

*Parsons Slough Project CEQA Review:* Mr. Grassetto is managing preparation of an expanded Initial Study for a tidal sill (dam) project to reduce scour in Parsons Slough, an arm of the ecologically sensitive Elkhorn Slough. This IS may lead to either an EIR or Mitigated Negative Declaration. Major issues include fisheries, marine mammals, water quality, aesthetics, and construction issues (noise). Client: Vinnedge Consulting/Elkhorn Slough National Estuary Reserve.

*Hamilton Wetlands/Todds Road CEQA Review.* Mr. Grassetto managed preparation of the CEQA Initial Study for an alternative access road for truck traffic to the Hamilton Wetlands Restoration Project to reduce the project's potential noise impacts. Major issues included noise, biological resources, and cultural resources. Client: California State Coastal Conservancy.

*San Francisco Bay Water Trail Program EIR.* Mr. Grassetto assisted in the preparation of the EIR for a "water trail" for small non-motorized boats throughout San Francisco Bay. The project involves designation of 115 access sites as well as policies for stewardship and education. Major issues include disturbance of birds, marine mammals, water quality, historic resources, and wetlands. Client: California State Coastal Conservancy.

*Dutch Slough Restoration Project/Oakley Community Park EIR.* Mr. Grassetto managed preparation of the EIR for a 1400-acre wetland restoration and 80-acre community park on former diked lands in Oakley. Major issues include fisheries, water quality, historic architectural resources, and wetlands. Client: California State Coastal Conservancy.

*Vineyard RV Park Expansion Initial Study.* Mr. Grassetto managed preparation of the Initial Study for an expansion of a mobile home park in Solano County near Vacaville. Major issues included flooding, biological resources, and traffic. Client: Vineyard RV Park.

*Pinole Creek Restoration Project Initial Study.* Mr. Grassetto prepared the CEQA Initial Study for a 2.5-mile long creek restoration project in the City of Pinole. Major issues included biological resources, flooding, and water quality. Client: City of Pinole.

*Knobcone Subdivision Initial Study.* Mr. Grassetto managed preparation of an Initial Study for a 5-unit subdivision in Richmond. Major issues include geologic hazards and biological resources. Client: City of Richmond.

## GRASSETTI QUALIFICATIONS

***Baxter Creek Restoration Project CEQA Consulting.*** Mr. Grassetti assisted City of El Cerrito staff in the preparation of an Initial Study for the proposed Baxter Creek Restoration Project. Client: City of El Cerrito.

***West of Fairview Subdivision Supplemental EIR.*** Mr. Grassetti managed preparation of a Supplemental EIR for a 700-unit residential development in Hollister. Major issues include traffic, biology, and utility services. Client: City of Hollister.

***American Canyon Initial Studies.*** Mr. Grassetti managed preparation of two initial studies for commercial and warehouse projects in the City of American Canyon. Major issues include traffic, biological resources, and geology. Client: City of American Canyon.

***Hampton Road Subdivision EIR.*** Mr. Grassetti managed preparation of a focused EIR for a 10-unit subdivision in the San Lorenzo area of Alameda County. Major issues include historic resources. Client: Philip Chen.

***Pelandale-McHenry Specific Plan.*** Mr. Grassetti prepared the Specific Plan for an 80-acre residential/commercial development in Modesto. Major issues included land use, traffic, and provision of adequate infrastructure. Client: Meritage Homes

***Monte Cresta Roadway Extension Initial Study.*** Mr. Grassetti prepared an Initial Study/Negative declaration for a roadway extension in San Juan Hills area of the City of Belmont. Major issues included slope stability and growth inducement. Client: City of Belmont

***Bethel Island Water Supply Project.*** Mr. Grassetti prepared an Initial Study for a proposed new water supply system for the community of Bethel Island in Contra Costa County. Major issues included growth inducement, archaeological resources, and biological resources. Client: Bethel Island Municipal Improvement District.

***San Francisco Bay Estuary Invasive Spartina Control Project EIR/EIS and Addendum.*** Mr. Grassetti managed preparation of the programmatic EIR/EIS on a plan to control invasive cordgrasses throughout the San Francisco Bay. Major issues included endangered species, visual resources, water quality, and human health and safety. Mr. Grassetti subsequently prepared an addendum for the addition of a new herbicide to the Spartina Control Program. Client: California State Coastal Conservancy.

***Aptos Sanitary Sewer Replacement Project Initial Study.*** Mr. Grassetti prepared an Initial Study for the replacement of a storm-damaged sanitary sewer pipeline in Santa Cruz County. Major issues included cultural resources and biological resources. Client: Harris and Associates.

***Eastern Dublin Specific Plan Supplemental EIR.*** Mr. Grassetti managed preparation of a Supplemental EIR for an 1100-acre mixed-use project in the City of Dublin. Major issues included traffic, biological resources, public services, noise, and air quality. Clients: Shea Homes and Braddock and Logan Services.

***Consolidated Forward Landfill Project EIR Update.*** Mr. Grassetti managed preparation of an EIR for the expansion and consolidation of the Forward Landfill and the Austin

## **GRASSETTI QUALIFICATIONS**

Road Landfill near Stockton, CA. Major issues include toxics, water quality, traffic, biological resources, and air quality. Client: San Joaquin County Community Development Department.

*Pleasanton IKEA Initial Study.* Mr. Grassetto prepared a Draft Initial Study for a proposed new 300,000 sq. ft. IKEA store in Pleasanton. Major issues included biology, traffic, and visual resources. Client: IKEA Corporation.

*Central Contra Costa Household Hazardous Waste Facility Studies:* Mr. Grassetto assisted Central Contra Costa Sanitary District staff in the preparation of a Planning Study and subsequent CEQA Initial Study on feasibility, siting, and environmental issues associated with the development of a Household Hazardous Waste collection program and facility in Central Contra Costa County. Client: Central Contra Costa Sanitary District.

*Southwest Richmond Flood Control Project IS.* Mr. Grassetto prepared the Initial Study and Mitigated Negative Declaration for a proposed flood control project in the City of Richmond. Client: City of Richmond.

*Wickland Oil Martinez Tank Farm Expansion Project EIR Management.* Mr. Grassetto served as an extension of City of Martinez Planning Department staff to manage all aspects of the preparation of the CEQA review for a 2,000,000-barrel expansion at Wickland's Martinez oil storage terminal. We prepared the NOP, RFP, assisted in consultant selection, and managed the consultant preparing the EIR on this project. Client: City of Martinez.

*Austin Road Landfill Expansion Project EIR Update.* Mr. Grassetto prepared an Initial Study and Supplemental EIR updating a 1994 EIR for the expansion of the Austin Road Landfill near Stockton, CA. Major issues include water quality, traffic, biological resources, and air quality. Client: San Joaquin County Community Development Department.

*Wayside Road Sewer Expansion Initial Study.* Mr. Grassetto prepared an Initial Study and Mitigated Negative Declaration for a proposed new sewer system in the Wayside Road area of Portola Valley. Client: West Bay Sanitary District

*Los Trancos Woods Sewer Expansion Initial Study.* Mr. Grassetto prepared an Initial Study and Mitigated Negative Declaration for a proposed new sewer system in the Los Trancos Woods area of Portola Valley. Client: West Bay Sanitary District

*Arastradero Road Sewer Expansion Initial Study.* Mr. Grassetto prepared an Initial Study and Mitigated Negative Declaration for a proposed new sewer system in the Arastradero Road area of Portola Valley. Client: West Bay Sanitary District

*Lower Orinda Pumping Station Initial Study/Negative Declaration.* Mr. Grassetto prepared an Initial Study/Negative Declaration for renovating or relocating a wastewater pumping plant in Orinda, CA. Client: Central Contra Costa Sanitary District.

## GRASSETTI QUALIFICATIONS

*Shell Martinez Breakout Tanks Project Initial Study.* Mr. Grassetto prepared an Initial Study for two proposed new wastewater storage tanks at Shell's Martinez Manufacturing Complex. Major issues included air quality, odors, and visual impacts. Client: City of Martinez.

*Shell Martinez Biotreater Facility Initial Study.* Mr. Grassetto prepared the Initial Study/Negative Declaration for a proposed new biotreater facility for Shell's Martinez Manufacturing Complex wastewater treatment plant. Major issues included water quality, wetlands, growth-inducement, and cumulative impacts. Client: City of Martinez.

*Vallejo Solar Power Plant Initial Study.* Mr. Grassetto prepared a CEQA Initial Study/Negative Declaration for a proposed photovoltaic array intended to power a water pumping plant in the City of Vallejo. Major issues included land use compatibility and visual quality. Client: City of Vallejo.

*Ranch on Silver Creek CEQA Consulting.* Mr. Grassetto prepared the Mitigation Monitoring and Reporting Program and other CEQA compliance tasks for a large residential/golf course project in San Jose. Client: Sycamore Associates.

*Morgan Hill Ranch Initial Study Analyses.* Mr. Grassetto prepared the Hydrology, Geology, and Hazardous Materials analyses for the Morgan Hill Ranch Mixed Use Project Initial Study. Client: Wagstaff and Associates.

*East Bay MUD Water Conservation Study.* Mr. Grassetto conducted the field portion of a major water conservation survey for the East Bay MUD service area. Client: Water Resource Engineering.

*East Bay MUD Pipeline CEQA Analyses.* Mr. Grassetto prepared technical analyses for two EIRs regarding proposed new East Bay MUD pipeline in Sacramento, San Joaquin, and Calaveras Counties. Client: Uribe & Associates.

*Sunnyvale Landfill Power Plant CEQA Initial Study.* Mr. Grassetto prepared an Initial Study for a proposed landfill gas-fueled power plant at the Sunnyvale Landfill in Santa Clara County. Recommendations for mitigation and further environmental review were prepared. Client: 3E Engineering.

*Fremont Redevelopment Project Hydrologic Analysis.* Mr. Grassetto prepared the hydrology section for an environmental impact report for four redevelopment projects in Fremont. Client: Wagstaff and Associates.

*Ostrom Road Landfill Hydrologic Analysis.* Mr. Grassetto prepared the hydrology section for an environmental impact report on the proposed vertical expansion of an existing Class II landfill in Yuba County. Client: ESA Associates.

*Pinole Portion of the Bay Trail Hydrologic, Geologic, and CEQA QA/QC Analyses.* Mr. Grassetto prepared the hydrologic and geologic analyses for a CEQA Initial Study on a half-mile segment of the Bay Trail in the City of Pinole. Mr. Grassetto also provided CEQA process consulting services on this project. Client: Placemakers.

## GRASSETTI QUALIFICATIONS

***Kennedy Park Master Plan Hydrologic and CEQA QA/QC Analyses.*** Mr. Grassetto prepared the hydrologic analyses for an environmental impact report on a proposed park master plan in the City of Napa. Client: Placemakers.

***U.S. Navy Bay Area Base Closure and Re-Use Environmental Studies.*** Mr. Grassetto assisted in the NEPA/CEQA review process for US Navy Base Closures and Re-Use for the San Francisco Bay Area. Work tasks include CEQA compliance overview, internal peer review, quality control reviews, and preparation of technical analyses. Specific projects are summarized below:

***Mare Island Naval Shipyard EIR/EIS Studies.*** Mr. Grassetto prepared the hydrology section of the EIR/EIS on the shipyard closure and reuse program, conducted a peer review of the geology section, and conducted QA/QC review of the entire EIR/EIS. Client: Tetra Tech, Inc.

***Oak Knoll Naval Medical Center EIR/EIS Studies.*** Mr. Grassetto conducted a CEQA/NEPA quality control and peer review of the EIS/EIR prepared for disposal and reuse of the Oak Knoll Naval Medical Center EIS/EIR in the City of Oakland. Client: Tetra Tech, Inc.

***NAS Alameda EIR/EIS Studies.*** Mr. Grassetto prepared the hydrology section of EIR/EIS on reuse of the Naval Air Station, conducted a peer review of the geology section, and conducted QA/QC review of the entire EIR/EIS. Client: Tetra Tech, Inc.

***Naval Station Treasure Island EIR/EIS Studies.*** Mr. Grassetto prepared the hydrology section of the EIR/EIS on reuse of Naval Station Treasure Island, conducted a peer review of the geology section, and conducted QA/QC review of the entire EIR/EIS. Client: Tetra Tech, Inc.

***Hunters Point Naval Shipyard EIR/EIS.*** Mr. Grassetto assisted in the responses to comments and peer review of the EIR/EIS for the Hunters Point Naval Shipyard in San Francisco. Client: Uribe and Associates.

***Naval Fuel Depot Point Molate.*** Mr. Grassetto conducted overall internal peer reviews of several drafts of the EIR/EIS for reuse of the former Naval Fuel Depot Point Molate in Richmond, CA. In addition, he prepared the Noise, Socioeconomics, and Cultural Resources sections of the EIS/EIR. Client: Uribe and Associates.

## GRASSETTI QUALIFICATIONS

### CEQA/NEPA PEER REVIEW AND EXPERT WITNESS CONSULTING PROJECTS

*Jackson State Forest CEQA Review.* Mr. Grassetto prepared a detailed analysis of the CEQA adequacy of the California Department of Forestry's EIR on a new management plan for the 40,000 acre Jackson State Forest. Major issues included forestry practices, water quality, and biological resources. Client: Dharma Cloud Foundation

*Los Angeles Airport Arrival Enhancement Project Environmental Assessment NEPA Peer Review.* Mr. Grassetto prepared a peer review and expert declarations regarding the adequacy of the NEPA Environmental Assessment for rerouting of flight paths for aircraft arriving at Los Angeles International Airport. Major issues included adequacy of assessment of noise effects on traditional cultural practices of the Morongo Band of Mission Indians. Client: Law Offices of Alexander & Karshmer.

*St Mary's College High School Master Plan Peer Reviews.* Mr. Grassetto conducted peer reviews of two Initial Studies for proposed expansions of a high school. Major issues included noise and traffic. Client: Peralta Perk Neighborhood Association.

*Lawson's Landing EIR Peer Review.* Mr. Grassetto conducted detailed peer reviews of numerous CEQA documents for the proposed master plan for the Lawson's Landing mobile home park and campground in Marin County. Client: Environmental Action Committee of West Marin.

*Coaches Field Initial Study Peer Review.* Mr. Grassetto conducted a peer review of a proposed lighted ballfield project in the City of Piedmont. Mr. Grassetto's review resulted in the Initial Study being withdrawn and an EIR being prepared. Client: Private Party.

*Metropolitan Oakland International Airport Development Plan Environmental Impact Report CEQA Review.* Mr. Grassetto performed a critical review and assisted in the preparation of comments and ultimately successful litigation regarding the proposed expansion of Metropolitan Oakland International Airport. Major issues included noise, cumulative impacts, and alternatives selection/analyses. Client: Law Office of John Shordike.

*San Francisco International Airport Environmental Liaison Office Consulting.* MR. GRASSETTI conducted various internal peer review tasks associated with environmental studies being prepared for SFIA's proposed runway expansion. Client: LSA Associates, Inc.

*El Cerrito Lumber Yard CEQA Peer Review.* Mr. Grassetto conducted an internal peer review for an Initial Study on a controversial parcel in the City of El Cerrito. Client: City of El Cerrito.

*Sausalito Marina CEQA Critique.* Mr. Grassetto prepared a peer review and critique of an EIR for a proposed new marina in Sausalito. Client: Confidential

*Sausalito Police and Fire Station CEQA Critique.* Mr. Grassetto prepared a peer review and critique of an EIR for a proposed new public safety building in Sausalito. Client: Confidential

## GRASSETTI QUALIFICATIONS

*Napa Verison Tower CEQA Critique.* Mr. Grassetto conducted a peer review and critique for a cellular telephone tower in the City of Napa. Client: Confidential.

*Morongo Mining Projects Environmental Reviews.* Mr. Grassetto provided CEQA, NEPA, and technical consulting to the Morongo Band of Mission Indians regarding two aggregate mines adjacent to their reservation in Riverside County, CA. Client: Law Office of Alexander & Karshmer.

*Napa Skateboard Park Peer Review.* Mr. Grassetto conducted a peer review and critique for a neighborhood association on a proposed skateboard park in the City of Napa. Client: Confidential.

*Headwaters Forest Project EIR/EIS Review.* Mr. Grassetto conducted an expert review of the CEQA and NEPA adequacy and technical validity of EIR/EIS on the Headwaters Forest Habitat Conservation Plan, Sustained Yield Plan, and land purchase. Clients: Environmental Law Foundation; Environmental Protection and Information Center, and Sierra Club.

*Global Photon Fiber-Optic Cable EIR Peer Review.* Mr. Grassetto assisted in a third-party peer review of an EIR on a proposed offshore fiber-optics cable. Client: Tetra Tech, Inc., and California State Lands Commission.

*Coachella Valley Water Management Plan CEQA Peer Review.* Mr. Grassetto assisted a consortium of Coachella Valley Indian Tribes in reviewing CEQA documents on the Coachella Valley Water Management Plan. Client: Consortium of Coachella Valley Tribes.

*Salton Sea Enhanced Evaporation System Initial Study/Environmental Assessment Peer Review.* Mr. Grassetto reviewed the draft IS/EA for a spray project to evaporate excess return flow water from the Salton Sea. Client: Morongo Band of Mission Indians.

*Santa Rosa Home Depot CEQA Peer Review:* Mr. Grassetto conducted a peer review and provided expert testimony regarding the adequacy of the Environmental Impact Report and associated technical studies for a proposed Home Depot shopping center in Santa Rosa. Client: Redwood Empire Merchants Association.

*Mitsubishi Mine CEQA Litigation Review.* Mr. Grassetto conducted a review of legal briefs regarding the adequacy of CEQA analyses for a proposed mine expansion in San Bernardino County. Client: Law Offices of Thomas Mauriello.

*Alamo Gate Permitting Review.* Mr. Grassetto performed a critical review and prepared expert testimony and correspondence regarding the adequacy of CEQA and land use permitting and studies for a proposed gate on Las Trampas Road, which would preclude vehicular access to a regional park staging area. Client: Las Trampas Trails Advocates.

*Cambria Condominiums Environmental and Planning Review.* Mr. Grassetto prepared expert reviews of the potential environmental effects and Local Coastal Plan compliance of a proposed condominium development in Cambria, San Luis Obispo County. Client: Law Office of Vern Kalshan.

## GRASSETTI QUALIFICATIONS

*Mariposa County Planning Policy Reviews.* Mr. Grassetto conducted a review of proposed alterations to the Mariposa County General Plan for CEQA compliance. Client: Dr. Barton Brown.

*Gregory Canyon Landfill Environmental Processing Review.* Mr. Grassetto was retained to review the environmental permitting and CEQA analyses for the proposed Gregory Canyon Landfill in northern San Diego County. Procedural issues include landfill siting requirements and CEQA process compliance. Technical issues include cultural resources, hydrology, endangered species, traffic, and health and safety. Client: Law Offices of Alexander & Karshmer and Pala Band of Mission Indians.

*Otay Ranch Development CEQA Review.* Mr. Grassetto prepared an expert review of the Environmental Impact Report for the 23,000-acre Otay Ranch project in San Diego County in connection with ongoing litigation. Major issues were CEQA compliance, compliance with the California planning process, biological impacts, cumulative impacts, and alternatives. Client: Law Offices of Charles Stevens Crandall.

*Punta Estrella Chip Mill Environmental Report Compliance Review.* Mr. Grassetto prepared a review of a proponent's environmental report for a proposed wood chip mill in Costa Rica to determine compliance of documentation with U.S. environmental standards and policies. Major compliance issues included US Clean Air Act and Clean Water Act standards, NEPA standards, and adequacy of overall impacts analysis. Client: Scientific Certification Systems.

*Carroll Canyon Burn Facility CEQA Compliance Review.* Mr. Grassetto prepared a CEQA process review for a proposed Negative Declaration on a planned contaminated-earth burning facility in the City of San Diego. Client: Law Offices of William Mackerzie.

*Monterey Bay Marine Lab CEQA Compliance Review:* Mr. Grassetto assisted attorneys in review of a CEQA Negative Declaration, NEPA Environmental Assessment, and associated documents for the relocation of the Monterey Bay Marine Laboratory. Issues included the effectiveness of mitigation to cultural and biological resources, the appropriateness of the Negative Declaration versus an EIR, and other CEQA issues. Client: Law Offices of Alexander & Karshmer.

*Monterey Ground Water Ordinances CEQA Compliance Review.* Mr. Grassetto provided expert CEQA consulting services to attorneys regarding the appropriateness of Monterey County's CEQA processing of proposed ground water ordinances. Client: Salinas Valley Water Coalition.

*Jamestown Whistlestop CEQA Adequacy Review.* Mr. Grassetto performed an expert review and assisted in successful litigation regarding an Initial Study for a proposed mini mall in Jamestown, Tuolumne County. Client: Law Offices of Thomas Mauriello.

*Sunrise Hills Environmental Impact Report Peer Review.* Mr. Grassetto performed a critical review of the applicability of the EIR for a proposed 200-unit residential development in Sonora, Tuolumne County. Major issues include grading, erosion, water quality, biological impacts, and visual quality. Client: Sylva Corporation.

*Sonora Crossroads Shopping Center Environmental Impact Report Review.* Mr. Grassetto performed a review of an EIR for a major new shopping center in Sonora, Tuolumne County.

## GRASSETTI QUALIFICATIONS

Major issues included geologic and hydrologic impacts. Findings were presented to the Sonora City Council, and pre-litigation assistance was provided. Client: Citizens for Well Planned Development.

*Blue Oaks Residential Development CEQA Studies Review and Critique.* Mr. Grassetto performed several tasks related to a proposed residential development in western Tuolumne County. Tasks included review of County CEQA procedure, review of Initial Study, review of Draft EIR, and coordination with attorneys. Client: Western Tuolumne County Citizens Action Group.

*Yosemite Junction Project CEQA Review.* Mr. Grassetto prepared a review and critique of a proposed Negative Declaration for a 40-unit outlet mall in Tuolumne County, California. The Negative Declaration was subsequently denied and the project application rescinded. Client: Sylva Corporation.

*Sonora Mining Corporation CEQA Review/Expert Witness Services.* Mr. Grassetto conducted a review and critique of CEQA compliance for the proposed expansion of Sonora Mining Corporation's Jamestown Gold Mine in Tuolumne County, California. Client: Law Office of Alexander Henson.

*Save Our Forests and Rangelands Expert Review and Witness Services.* Mr. Grassetto provided expert review, consulting services, and expert witness testimony on CEQA issues for a successful legal challenge to an EIR and Area Plan for 200,000 acres in the Central Mountain Sub-region of San Diego County. Client: Law Offices of Milberg, Weiss, Bershad, Specthrie, & Lerach.

## Zoning Database (OZD)

The Sonoma County Permit and Resource Management Department (PRMD) maintains an Official Zoning Database (OZD) in digital form. The OZD was adopted by the Board of Supervisors on June 12, 2007 and became official on July 12, 2007. This zoning database was created using Geographic Information Systems (GIS) mapping software and replaces all hard-copy zoning maps that were formally located in the self-help lobby at PRMD.

The reports provided below are generated from the OZD and contain zoning sorted by Sonoma County Assessor's Parcel Number (APN). These reports are updated as needed at the end of each month, so you should contact the PRMD [Planning Information Phone](#) to verify current zoning before making decisions.

Within these reports, both "Base Zoning" and "Combining District" (aka overlay) are listed. When indicated, a Combining District may be Biotic Habitat (BH), Scenic Resources (SR), Flood Zones (F1 or F2), etc. Combining Districts are site specific and most likely do not follow APN boundaries. It cannot be determined where on the APN the Combining District is located from these reports. For information on Combining District boundaries, please contact the PRMD Planning Information Phone.

A complete description of Zoning and Combining Districts can be found in the current [zoning code regulations](#) area of this site.

You can locate the zoning for a specific property by using the Assessor's Parcel Number (APN).

### **How to find zoning by APN:**

The Assessors Parcel Map Book Numbers are broken down into report segments containing a range of parcel numbers. In the list below, the range for each report segment contains only the parcel number's first three digits. For example, the first item is listed as "003-029" which denotes a range of all parcel numbers containing 003-000-000 through and including 029-999-999. Click on the appropriate Assessors Parcel Map Book Number range to open the report. While viewing the report, perform a text search for the desired APN, including hyphens.

**Example APN:** 000-000-000

COUNTY ASSESSOR'S PARCEL MAP

TAX RATE AREA 76-05  
159-002  
5-022'

RECORD OF SURVEY - Book 60, Page 44



Parcel Map No. 1640-A  
REC. 12-23-1988 IN BK 149, MAPS, PGS. 16-00  
REVERSION TO ACREAGE  
REC. 06-30-1974 IN BK 209, MAPS, PGS. 09-10  
Parcel Map No. 5941  
REC. 08-31-1977 IN BK 258, MAPS, PGS. 38-00

TAX RATE AREA 159-002

NOTE: THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA DELINEATED HEREON.

SANBORN'S SUBDIVISION of the ELPHICK TRACT Assessor's Map 5 Sonoma County, Calif.

BLUCHER RANCHO  
HYBRID 1/4/08 ML  
Assessor's Map Bk. 076, Pg. 09  
Sonoma County, Calif. (HACD)

APN	Base Zoning	Combining District
076-030-043	AR B6 10	NONE
076-030-044	DA B6 20 Z	LG/116
076-030-045	AR B6 10	LG/116
076-030-046	AR B6 10	LG/116
076-040-003	AR B6 10	LG/116
076-040-005	AR B6 10	LG/116
076-040-007	AR B6 10	LG/116
076-040-011	AR B6 10	LG/116
076-040-012	AR B6 10	LG/116
076-040-013	AR B6 10	LG/116
076-040-014	AR B6 10	LG/116
076-040-015	AR B6 10	LG/116
076-040-019	AR B6 10	LG/116
076-040-021	AR B6 10	LG/116
076-040-022	AR B6 10	LG/116
076-040-023	AR B6 10	LG/116
076-040-024	AR B6 10	LG/116
076-040-025	AR B6 10	LG/116
076-040-026	AR B6 10	LG/116
076-040-027	AR B6 10	LG/116
076-040-028	AR B6 10	LG/116
076-040-029	AR B6 10	LG/116
076-040-030	AR B6 10	LG/116
076-040-031	DA B6 20 Z	LG/116
076-040-032	DA B6 20 Z	LG/116
076-040-033	AR B6 10	LG/116
076-050-002	DA B6 20 Z	NONE
076-050-005	RR B6 2	NONE
076-050-006	RR B6 2	NONE
076-050-007	RR B6 2	NONE
076-050-008	RR B6 2	NONE
076-050-009	RR B6 2	NONE



APN	Base Zoning	Combining District
076-050-010	RR B6 2	NONE
076-050-012	RR B6 2	NONE
076-050-013	RR B6 2	NONE
076-050-015	RR B6 2	NONE
076-050-018	RR B6 2	NONE
076-050-019	RR B6 2	LG/116
076-050-023	RR B6 2	LG/116
076-050-028	RR B6 2	NONE
076-050-033	RR B6 2	LG/116
076-050-035	RR B6 2	NONE
076-050-040	RR B6 2	NONE
076-050-041	RR B6 2	NONE
076-050-042	RR B6 2	NONE
076-050-044	RR B6 2	LG/116
076-050-046	RR B6 2	LG/116
076-050-047	RR B6 2	LG/116
076-050-048	RR B6 2	LG/116
076-050-049	RR B6 2	NONE
076-050-050	RR B6 2	LG/116
076-050-051	RR B6 2	LG/116
076-050-053	RR B6 2	NONE
076-050-055	DA B6 20 Z	NONE
076-050-061	RR B6 2	NONE
076-050-062	RR B6 2	NONE
076-050-063	RR B6 2	NONE
076-050-064	RR B6 2	LG/116
076-050-065	RR B6 2	LG/116
076-050-066	RR B6 2	NONE
076-050-069	RR B6 2	NONE
076-050-070	RR B6 2	LG/116
076-050-071	RR B6 2	LG/116
076-050-072	RR B6 2	NONE



APN

Base Zoning

APN	Base Zoning	Combining District
076-050-073	DA B6 20 Z	LG/116
076-050-074	DA B6 20 Z	LG/116
076-050-075	DA B6 20 Z	LG/116
076-050-076	DA B6 20 Z	LG/116
076-060-003	RR B6 5	NONE
076-060-004	RR B6 5	NONE
076-060-005	RR B6 2	NONE
076-060-011	RR B6 2	NONE
076-060-012	RR B6 2	NONE
076-060-014	RR B6 5	NONE
076-060-017	RR B6 2	NONE
076-060-020	RR B6 2	NONE
076-060-021	RR B6 2	NONE
076-060-024	RR B6 2	NONE
076-060-026	RR B6 2	NONE
076-060-041	RR B6 2	NONE
076-060-049	RR B6 2	NONE
076-060-051	RR B6 2	NONE
076-060-052	RR B6 2	NONE
076-060-054	RR B6 2	NONE
076-060-055	RR B6 2	NONE
076-060-056	RR B6 2	NONE
076-060-057	RR B6 2	NONE
076-060-058	RR B6 2	NONE
076-060-059	RR B6 2	NONE
076-060-061	RR B6 2	NONE
076-060-063	RR B6 2	NONE
076-060-065	RR B6 2	NONE
076-060-067	RR B6 2	NONE
076-060-068	RR B6 2	NONE
076-060-069	RR B6 2	NONE
076-060-070	RR B6 2	NONE



APN	Base Zoning	Combining District
076-072-005	RR B6 2	NONE
076-072-006	DA B6 10	SR
076-072-007	DA B6 10	SR
076-072-008	DA B6 10	SR
076-072-009	DA B6 10	SR
076-072-012	DA B6 10	SR
076-072-013	DA B6 10	SR
076-072-014	DA B6 10	SR
076-072-015	RR B6 2	NONE
076-072-016	RR B6 2	NONE
076-072-017	RR B6 2	NONE
076-072-018	RR B6 2	NONE
076-072-021	DA B6 10	SR
076-072-022	RR B6 2	NONE
076-072-023	RR B6 2	NONE
076-072-024	DA B6 10	F2 RC200/50 SR VOH
076-072-025	DA B6 10	SR
076-072-026	DA B6 10	SR
076-072-027	DA B6 10	SR
076-080-010	DA B6 10	NONE
076-080-019	DA B6 10	LG/116
076-080-022	DA B6 10	NONE
076-080-028	DA B6 10	NONE
076-080-029	DA B6 10	RC200/50
076-080-032	DA B6 10	NONE
076-080-033	DA B6 10	RC200/50
076-080-036	DA B6 10	NONE
076-080-038	DA B6 10	NONE
076-080-039	DA B6 10	NONE
076-080-043	DA B6 10	NONE
076-080-044	DA B6 10	NONE
076-080-053	DA B6 10	NONE



APN	Base Zoning	Combining District
076-080-054	DA B6 10	NONE
076-080-056	DA B6 10	NONE
076-080-058	DA B6 10	NONE
076-080-059	DA B6 10	NONE
076-080-061	DA B6 10	NONE
076-080-063	DA B6 10	NONE
076-080-065	DA B6 10	RC200/50
076-080-066	PF	NONE
076-080-067	PF	NONE
076-080-069	DA B6 10	NONE
076-080-070	DA B6 10	NONE
076-080-071	DA B6 10	NONE
076-080-074	DA B6 10	NONE
076-080-077	DA B6 10	NONE
076-080-078	DA B6 10	NONE
076-080-079	DA B6 10	NONE
076-080-081	DA B6 10	NONE
076-080-082	DA B6 10	NONE
076-080-083	DA B6 10	NONE
076-080-084	DA B6 10	NONE
076-080-085	DA B6 10	NONE
076-080-086	DA B6 10	NONE
076-080-087	DA B6 10	NONE
076-080-091	DA B6 10	NONE
076-080-092	DA B6 10	NONE
076-080-093	DA B6 10	RC200/50 SR VOH
076-080-094	DA B6 10	SR
076-080-095	DA B6 10	NONE
076-080-096	DA B6 10	NONE
076-080-097	DA B6 10	LG/116
076-080-098	DA B6 10	NONE
076-080-099	DA B6 10	NONE



APN	Base Zoning	Combining District
076-092-020	DA B6 10 Z	NONE
076-092-021	DA B6 10 Z	VOH
076-092-022	DA B6 10 Z	LG/116
076-092-023	DA B6 10 Z	LG/116
076-092-024	DA B6 10 Z	LG/116
076-092-025	DA B6 10	NONE
076-092-026	DA B6 10 Z	NONE
076-092-027	DA B6 10 Z	VOH
076-092-028	DA B6 10 Z	VOH
076-092-029	PF	NONE
076-092-030	DA B6 10 Z	LG/116
076-092-031	DA B6 10 Z	NONE
076-092-032	DA B6 10 Z	NONE
076-092-033	DA B6 10 Z	VOH
076-092-034	DA B6 10 Z	VOH
076-092-035	DA B6 10 Z	VOH
076-093-004	DA B6 20 Z	LG/116
076-093-005	DA B6 20 Z	LG/116
076-093-006	DA B6 20 Z	LG/116
076-093-008	DA B6 20 Z	LG/116
076-093-009	DA B6 20 Z	LG/116
076-093-010	DA B6 20 Z	LG/116
076-093-011	DA B6 20 Z	LG/116
076-093-012	DA B6 20 Z	LG/116
076-093-013	DA B6 20 Z	LG/116
076-093-014	DA B6 20 Z	LG/116
076-093-015	DA B6 20 Z	LG/116
076-093-016	DA B6 20 Z	LG/116
076-093-017	DA B6 20 Z	LG/116
076-093-018	DA B6 20 Z	LG/116
076-093-019	DA B6 20 Z	LG/116
076-093-021	DA B6 20 Z	LG/116



## Jonathan Atkinson

---

**From:** oonah <una76@sbcglobal.net>  
**Sent:** Wednesday, April 27, 2016 1:51 PM  
**To:** Jonathan Atkinson  
**Subject:** KOWS tower

Dear Sebastopol City Council members:

I am opposed to the 70 foot KOWS radio antenna tower that is proposed at 1281 Pleasant Hill Road, in the scenic west Sebastopol hills. The beautiful rural areas surrounding Sebastopol should be preserved and not be blighted with industrial towers. Please look to the Sebastopol General Plan for guidance.

1. The views of open space and rolling hills surrounding Sebastopol contributes to our sense of identity and well-being.
2. Preserve and enhance scenic views of the hills west of Sebastopol.
3. Minimize community exposure to electromagnetic fields. Prudent avoidance is dictated.

The "greater good" is best served by preserving the beautiful areas surrounding Sebastopol, not by building more antenna towers.

Sincerely,

Oonah Finneral-Thornton

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Thursday, April 28, 2016 4:29 PM  
**To:** Jonathan Atkinson  
**Subject:** FW: KOWS antenna

For file.

---

**From:** Mary Gourley  
**Sent:** Thursday, April 28, 2016 4:25 PM  
**To:** Kenyon Webster <kwebster@cityofsebastopol.org>; Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>  
**Subject:** Fwd: KOWS antenna

Mary C. Gourley, CMC, City Clerk  
City of Sebastopol  
Office of the City Manager/City Clerk  
7120 Bodega Avenue  
Sebastopol, California. 95472  
(707) 823-1153 - phone  
(707) 823-1135 - fax  
Email: [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)

Begin forwarded message:

**From:** David Stroud <[dmstroud99@hotmail.com](mailto:dmstroud99@hotmail.com)>  
**Date:** April 28, 2016 at 4:23:41 PM PDT  
**To:** "[mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)" <[mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)>  
**Subject:** KOWS antenna  
**Reply-To:** David Stroud <[dmstroud99@hotmail.com](mailto:dmstroud99@hotmail.com)>

I hope that the Sebastopol City Council will see past the misinformation and scare tactics that neighbors have mounted to move against the KOWS transmission tower. I have read the plans and recognize that this tower, its antenna, and equipment are not something that anyone should fear. The scare tactics of colocation are totally unfounded. There is room on this small tower for one antenna and one alone. From what I can gather, the remaining arguments are smokescreens and lies assembled out of fear, not fact.

Community radio is a vital part of a thriving community. KOWS is wholly community funded including ongoing members and business underwriters. It receives no Federal grants nor tax dollars so the contributions for ongoing expense and the antenna are community-based. Their investment in our community is one that is grounded in commitment.

Please vote on the side of the greater good, common sense, and reason.

Thanks  
David Stroud

Volunteer and lifelong Sonoma County resident

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Thursday, April 28, 2016 4:37 PM  
**To:** Jonathan Atkinson  
**Subject:** FW: KOWS antenna

For file.

---

**From:** Mary Gourley  
**Sent:** Thursday, April 28, 2016 4:34 PM  
**To:** Kenyon Webster <kwebster@cityofsebastopol.org>; Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>  
**Subject:** Fwd: KOWS antenna

Mary C. Gourley, CMC, City Clerk  
City of Sebastopol  
Office of the City Manager/City Clerk  
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(707) 823-1153 - phone  
(707) 823-1135 - fax  
Email: [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)

Begin forwarded message:

**From:** "stephen d. gross" <[sdgross@sonic.net](mailto:sdgross@sonic.net)>  
**Date:** April 28, 2016 at 4:26:27 PM PDT  
**To:** <[mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)>  
**Cc:** Don Campau <[campaudj@comcast.net](mailto:campaudj@comcast.net)>  
**Subject:** KOWS antenna

Hi

I'm writing in support of an antenna being permitted which will serve Sebastopol's only homegrown station and will help entertain, educate, inform and make people aware of ideas, concepts, issues and priorities as well as furnish a unifying platform for those within Sebastopol and environs.

The non-profit station seeks to become an important and relevant part of the community and considering it's all volunteer, it's an economical way to accomplish this.

It won't be used for commercial purposes and increasing the ability to communicate can be an invaluable resource.

Please consider the positive impact KOWS ability to reach more people will have.

A functional antenna is a small "price" to pay to achieve this goal.

Respectfully

stephen d. gross  
po bx 69, Monte Rio

sdgross@sonic.net

865-0123

“The Mystery Train” 3pm to 5pm, alternate Mondays.

## Jonathan Atkinson

---

**From:** MarkHurston <markhurston@comcast.net>  
**Sent:** Saturday, April 30, 2016 9:54 AM  
**To:** Kenyon Webster; Jonathan Atkinson  
**Cc:** MarkHurston  
**Subject:** KOWS Radio Antenna Tower

**From:** Mark Hurston  
8349 Lewanna Lane  
Sebastopol, CA 95472

April 30 2016

Sebastopol City Council  
P.O. Box 1776  
Sebastopol, CA 95473

Dear Sebastopol City Council members:

I am opposed to the 70 foot KOWS radio antenna tower that is proposed at 1281 Pleasant Hill Road, in the scenic west Sebastopol hills.

The “Greater Good” is best served by preserving the beautiful areas surrounding Sebastopol and the health, safety and welfare of the residents, not by building more antenna towers.

The term “Greater Good” has also been used in connection with the supposed contribution that KOWS makes or would make in the future to the Emergency Alert System (EAS).

Let’s not kid ourselves, despite KOWS persuasive pressures to have us believe otherwise. There is more than adequate distribution and availability of reliable information during an emergency.

The question must therefore be asked: From where are a group of enthusiastic amateur broadcasters obtaining their information? Most likely from the same sources currently used by the local population, and all KOWS would be doing is re-broadcasting the same information. There are already several AM and FM radio stations with similar access to EAS information as KOWS serving the West County area.

At the Council Meeting in February, a misleading comment was made by the Chairman that “there are no houses near the site”. This statement is plainly untrue.

I should also like to ask you a question. Would you agree to such a tower in your neighborhood? I think not.

Please vote against this proposal. Thank You.

Sincerely,

(Signed- Mark Hurston)

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Monday, May 02, 2016 7:04 AM  
**To:** Jonathan Atkinson  
**Subject:** FW: KOWs antenna

For file.

---

**From:** Mary Gourley  
**Sent:** Sunday, May 01, 2016 9:37 AM  
**To:** Sarah Glade Gurney <sarahcouncil@yahoo.com>; unaglass@coastwalk.org; Patrick Slayter <ps.sebcc@gmail.com>; John Eder <johneder@comcast.net>; robert@robert-jacob.com  
**Cc:** Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>; Kenyon Webster <kwebster@cityofsebastopol.org>  
**Subject:** Fwd: KOWs antenna

FYI

Mary C. Gourley, CMC, City Clerk  
City of Sebastopol  
Office of the City Manager/City Clerk  
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(707) 823-1153 - phone  
(707) 823-1135 - fax  
Email: [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)

Begin forwarded message:

**From:** Barry Vesser <[barryvesser@gmail.com](mailto:barryvesser@gmail.com)>  
**Date:** April 30, 2016 at 9:55:21 PM PDT  
**To:** [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)  
**Subject:** KOWs antenna

As a KOWs supporter who currently lives just a little out of range. I respectfully ask the City Council to allow KOWs to move the antenna to Sebastopol.

Thank you for your consideration.

--

Barry Vesser  
[barryvesser@gmail.com](mailto:barryvesser@gmail.com)

*It really boils down to this: that all life is interrelated. We are all caught in an inescapable network of mutuality... whatever affects one directly, affects all.*

**Dr. Martin Luther King, Jr.**

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Monday, May 02, 2016 7:04 AM  
**To:** Jonathan Atkinson  
**Subject:** FW: KOWS Community Radio

For file.

---

**From:** Mary Gourley  
**Sent:** Sunday, May 01, 2016 9:36 AM  
**To:** Sarah Glade Gurney <sarahcouncil@yahoo.com>; unaglass@coastwalk.org; Patrick Slayter <ps.sebcc@gmail.com>; John Eder <johneder@comcast.net>; robert@robert-jacob.com  
**Cc:** Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>; Kenyon Webster <kwebster@cityofsebastopol.org>  
**Subject:** Fwd: KOWS Community Radio

FYI

Mary C. Gourley, CMC, City Clerk  
City of Sebastopol  
Office of the City Manager/City Clerk  
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Sebastopol, California. 95472  
(707) 823-1153 - phone  
(707) 823-1135 - fax  
Email: [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)

Begin forwarded message:

**From:** Christopher Szecsey <[cs@christophersconsulting.com](mailto:cs@christophersconsulting.com)>  
**Date:** May 1, 2016 at 9:06:33 AM PDT  
**To:** [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)  
**Subject:** KOWS Community Radio

Re: KOWS Community Radio,

The objective of "community radio" is to provide the community with access to radio service and local programming.

I support approving the antenna move, to provided community radio access to greater West County.

Thank you for consideration of this important decision for the benefit of the community.

Christopher

E-M: [cs@christophersconsulting.com](mailto:cs@christophersconsulting.com)  
Office: 707.874.2230  
Mobile: 707.849.8231  
Mail: P.O. Box 1022  
Occidental, California, 95465 USA

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Monday, May 02, 2016 7:04 AM  
**To:** Jonathan Atkinson  
**Subject:** FW: KOWS antenna

For file.

---

**From:** Mary Gourley  
**Sent:** Saturday, April 30, 2016 8:53 PM  
**To:** Sarah Glade Gurney <sarahcouncil@yahoo.com>; Patrick Slayter <ps.sebcc@gmail.com>; unaglass@coastwalk.org; John Eder <johneder@comcast.net>; robert@robert-jacob.com  
**Cc:** Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>; Kenyon Webster <kwebster@cityofsebastopol.org>  
**Subject:** Fwd: KOWS antenna

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(707) 823-1153 - phone  
(707) 823-1135 - fax  
Email: [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)

Begin forwarded message:

**From:** Elizabeth Fudenberg <[longwillow@icloud.com](mailto:longwillow@icloud.com)>  
**Date:** April 30, 2016 at 8:52:37 PM PDT  
**To:** [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)  
**Subject:** KOWS antenna

Hi there,  
Sending support to move the antenna so there can be a broader audience...more moovers and shakers, so to speak!  
Thanks!  
Longwillow

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Monday, May 02, 2016 7:06 AM  
**To:** Jonathan Atkinson  
**Subject:** FW: KOWS.fm

For file.

---

**From:** Mary Gourley  
**Sent:** Friday, April 29, 2016 1:42 PM  
**To:** Sarah Glade Gurney <sarahcouncil@yahoo.com>; unaglass@coastwalk.org; Patrick Slayter <ps.sebcc@gmail.com>; John Eder <johneder@comcast.net>; robert@robert-jacob.com  
**Cc:** Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>; Kenyon Webster <kwebster@cityofsebastopol.org>  
**Subject:** Fwd: KOWS.fm

Mary C. Gourley, CMC, City Clerk  
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(707) 823-1135 - fax  
Email: [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)

Begin forwarded message:

**From:** Candi Penn <[occinfo@sonic.net](mailto:occinfo@sonic.net)>  
**Date:** April 29, 2016 at 12:47:05 PM PDT  
**To:** <[mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)>  
**Subject:** **KOWS.fm**

To the Sebastopol City Council,

The Occidental Community Council would like to express our support for the [KOWS.fm](#) Antenna Use Permit in Sebastopol.

We broadcast the activities of the OCC on [KOWS.fm](#) and enjoy the extensive programming that serves our community.

Thanks,  
Candi Penn  
OCC Secretary  
PO Box 17, Occidental, CA 95465  
[occinfo@sonic.net](mailto:occinfo@sonic.net)  
<http://www.occidental-ca.org>

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Monday, May 02, 2016 7:06 AM  
**To:** Jonathan Atkinson  
**Subject:** FW: KOWS.fm

For file.

---

**From:** Mary Gourley  
**Sent:** Friday, April 29, 2016 1:42 PM  
**To:** Sarah Glade Gurney <sarahcouncil@yahoo.com>; unaglass@coastwalk.org; Patrick Slayter <ps.sebcc@gmail.com>; John Eder <johneder@comcast.net>; robert@robert-jacob.com  
**Cc:** Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>; Kenyon Webster <kwebster@cityofsebastopol.org>  
**Subject:** Fwd: KOWS.fm

Mary C. Gourley, CMC, City Clerk  
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(707) 823-1135 - fax  
Email: [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)

Begin forwarded message:

**From:** Candi Penn <[candipenn@sonic.net](mailto:candipenn@sonic.net)>  
**Date:** April 29, 2016 at 12:42:51 PM PDT  
**To:** <[mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)>  
**Cc:** Laura Goldman <[livingroomlaura@gmail.com](mailto:livingroomlaura@gmail.com)>  
**Subject:** **KOWS.fm**

Hello Sebastopol City Council,  
I am the coordinator for the Occidental Emergency Prep group.  
We definitely enjoy all the [KOWS.fm](http://KOWS.fm) programming, and are especially glad to have a local radio broadcast that would serve our community in case of an emergency. Whether it is road closures, electric outages, floods, trees down, or worse...fires, earthquakes....we depend on [KOWS.fm](http://KOWS.fm) for vital information.  
Thanks for supporting the antenna move to Sebastopol.  
Sincerely,  
Candi Penn  
OEP  
[oeppenn@sonic.net](mailto:oeppenn@sonic.net)

[candipenn@sonic.net](mailto:candipenn@sonic.net)  
707 874 3784

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Monday, May 02, 2016 7:07 AM  
**To:** Jonathan Atkinson  
**Subject:** FW: Kows

For file.

---

**From:** Mary Gourley  
**Sent:** Friday, April 29, 2016 1:41 PM  
**To:** Sarah Glade Gurney <sarahcouncil@yahoo.com>; unaglass@coastwalk.org; Patrick Slayter <ps.sebcc@gmail.com>; John Eder <johneder@comcast.net>; robert@robert-jacob.com  
**Cc:** Kenyon Webster <kwebster@cityofsebastopol.org>; Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>  
**Subject:** Fwd: Kows

Mary C. Gourley, CMC, City Clerk  
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(707) 823-1135 - fax  
Email: [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)

Begin forwarded message:

**From:** Bob Rozett <[bobrozett@gmail.com](mailto:bobrozett@gmail.com)>  
**Date:** April 29, 2016 at 12:05:14 PM PDT  
**To:** [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)  
**Subject:** Kows

I am a supporter of the new location, this radio station will help when the big one (and it's coming) hits. I've got 35 years in the fire service in this county, if that validates my position. Thank you for your time Bob Rozett

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Monday, May 02, 2016 7:07 AM  
**To:** Jonathan Atkinson  
**Subject:** FW: KOWS Antenna

For file.

---

**From:** Mary Gourley  
**Sent:** Friday, April 29, 2016 1:41 PM  
**To:** Sarah Glade Gurney <sarahcouncil@yahoo.com>; unaglass@coastwalk.org; John Eder <johneder@comcast.net>; Patrick Slayter <ps.sebcc@gmail.com>; robert@robert-jacob.com  
**Cc:** Kenyon Webster <kwebster@cityofsebastopol.org>; Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>  
**Subject:** Fwd: KOWS Antenna

Mary C. Gourley, CMC, City Clerk  
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(707) 823-1153 - phone  
(707) 823-1135 - fax  
Email: [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)

Begin forwarded message:

**From:** Karen Horne <[ihearurockin@yahoo.com](mailto:ihearurockin@yahoo.com)>  
**Date:** April 29, 2016 at 11:33:04 AM PDT  
**To:** "[mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)" <[mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)>  
**Subject:** KOWS Antenna  
**Reply-To:** Karen Horne <[ihearurockin@yahoo.com](mailto:ihearurockin@yahoo.com)>

Dear City Clerk,

"I respectfully ask the City Council to allow KOWS to move the antenna to Sebastopol.  
Thank you."

Karen Horne  
announcer/producer  
KOWS

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Monday, May 02, 2016 7:12 AM  
**To:** Jonathan Atkinson  
**Subject:** FW: KOWS

For file.

---

**From:** Mary Gourley  
**Sent:** Friday, April 29, 2016 11:05 AM  
**To:** Sarah Glade Gurney <sarahcouncil@yahoo.com>; unaglass@coastwalk.org; John Eder <johneder@comcast.net>; Patrick Slayter <ps.sebcc@gmail.com>; robert@robert-jacob.com  
**Cc:** Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>; Kenyon Webster <kwebster@cityofsebastopol.org>  
**Subject:** Fwd: KOWS

Mary C. Gourley, CMC, City Clerk  
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Office of the City Manager/City Clerk  
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(707) 823-1153 - phone  
(707) 823-1135 - fax  
Email: [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)

Begin forwarded message:

**From:** Amie Hill <[aahill@sonic.net](mailto:aahill@sonic.net)>  
**Date:** April 29, 2016 at 11:00:07 AM PDT  
**To:** <[mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)>  
**Subject:** KOWS

Dear Ms. Gourley,

I'm writing to endorse the moving of the KOWS antenna for more broadcast reach. Community radio is such a valuable resource, and can play a vital part in boosting community spirit and in times of informational need.

I have to stay at home a lot, and would very much appreciate being able to listen to KOWS on my radio instead of being tied to my desktop computer. Any opposition to what I understand is a relatively small antenna on a public site would seem to be poorly based.

KOWS is a valuable asset to Sebastopol. Please approve the placement of the antenna.

Thank you,

Pamela A. Hill  
264 Jesse St.  
Sebastopol

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Monday, May 02, 2016 7:12 AM  
**To:** Jonathan Atkinson  
**Subject:** FW: KOWS Support/City Council

For file.

---

**From:** Mary Gourley  
**Sent:** Friday, April 29, 2016 6:48 AM  
**To:** Kenyon Webster <kwebster@cityofsebastopol.org>; Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>  
**Subject:** Fwd: KOWS Support/City Council

Mary C. Gourley, CMC, City Clerk  
City of Sebastopol  
Office of the City Manager/City Clerk  
7120 Bodega Avenue  
Sebastopol, California. 95472  
(707) 823-1153 - phone  
(707) 823-1135 - fax  
Email: [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)

Begin forwarded message:

**From:** Karen Goldman <[karengoldman49@gmail.com](mailto:karengoldman49@gmail.com)>  
**Date:** April 29, 2016 at 6:44:49 AM PDT  
**To:** [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)  
**Subject:** KOWS Support/City Council

Thank you in advance for allowing me to share my support (via email) of the KOWS request to move the antenna to Sebastopol to enhance the broadcast reach. I'm unable to attend the meeting but as a member of the KOWS community, I believe it is vital to be heard and support one of our treasured community resources.

It is important to me to keep this discussion positive and based on facts. Please keep this in mind as you review all of the information that has been presented. With gratitude for your open minds and understanding of how much this means to our community.  
Karen Goldman

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Monday, May 02, 2016 7:12 AM  
**To:** Jonathan Atkinson  
**Subject:** FW: About the KOWS antenna and the Red Cross - short and to the point

For file.

---

**From:** Mary Gourley  
**Sent:** Friday, April 29, 2016 6:47 AM  
**To:** Kenyon Webster <kwebster@cityofsebastopol.org>; Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>  
**Subject:** Fwd: About the KOWS antenna and the Red Cross - short and to the point

Mary C. Gourley, CMC, City Clerk  
City of Sebastopol  
Office of the City Manager/City Clerk  
7120 Bodega Avenue  
Sebastopol, California. 95472  
(707) 823-1153 - phone  
(707) 823-1135 - fax  
Email: [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)

Begin forwarded message:

**From:** Dotty Joos <[djoos@sonic.net](mailto:djoos@sonic.net)>  
**Date:** April 29, 2016 at 6:40:39 AM PDT  
**To:** <[mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)>  
**Subject:** **About the KOWS antenna and the Red Cross - short and to the point**

My name is Dorothea Joos, I have lived in the Occidental area over 40 years, and I am a 20-year veteran of the American Red Cross, now retired due to old age. During those 20 years I taught the Disaster Response classes, responded to fires and floods in the Russian River and Sebastopol areas, and was part of the San Francisco command team after the Loma Prieta earthquake response.

During those events, radio was a primary manner of keeping in touch with the people. In an area-wide disaster, such as an earthquake, radio would again rise to importance as rural opportunities to recharge electronic "devices" fade with the absence of electricity and telephone lines go down. This is especially true for low-income households that often are in the most precarious locations.

Please support the placement of the KOWS antenna to ensure this important means of community communication.

Dorothea (Dotty) Joos

POB 28  
Occidental, CA 95465

## Jonathan Atkinson

---

**From:** Sandi Maurer <EMFSafe@sonic.net>  
**Sent:** Monday, May 02, 2016 10:21 AM  
**To:** Sarah Glade Gurney; Larry Mclaughlin; Patrick Slater; Mary Gourley; Robert Jacob; John Eder; Una Glass; Jonathan Atkinson; Kenyon Webster  
**Subject:** Be a good neighbor, support SHARP's appeal

Sebastopol City Council and staff,

EMF Safety Network asks the council to support the appeal by SHARP (Sebastopol Hills Alliance for Rural Preservation) and to deny the permit to build a radio tower for KOWS on Pleasant Hill Road for the following reasons.

1).The neighbors do not want a radio tower near their homes. The City of Sebastopol agreed to not host a cell tower on that same property in 1994. It's neither right nor fair to do special favors for KOWS against the will of our county neighbors. These neighbors health, safety, views and property values are threatened by the radio tower and they are powerless to vote in Sebastopol.

2). KOWS has an alternative location: Respini Ranch.

3).A new tower will be a magnet for antenna applications. Co-locations laws can and will likely change. City councils will change. Although Sebastopol might be able to only host the KOWS antenna for now, there's no guarantee Sebastopol won't be forced to allow other telecommunications antennas in that location in the future.

4). The antenna transmits RF radio frequency radiation. See this new RF study recently published in IEEE magazine: "RF fields can change radical concentrations and cancer cell growth rates"  
<http://ecee.colorado.edu/~ecen4341/supplement/Barnes%20Greenebaum%20IEEE%20article%20March%202016.pdf>

5). Approving SHARP's appeal honors Sebastopol's draft general plan which calls for reducing EMF exposure. See page 10-5 under Community Health and wellness  
[http://sebastopol.generalplan.org/sites/default/files/Sebastopol%20General%20Plan\\_GPAC%20Draft\\_12-22-15.pdf](http://sebastopol.generalplan.org/sites/default/files/Sebastopol%20General%20Plan_GPAC%20Draft_12-22-15.pdf)

Relevant excerpts: "3:Promote community education and awareness on EMF health information and stay abreast of current research and regulations."; "4: Continue to regulate the location and appearance of telecommunications and electrical facilities."; "4a: Explore programs and legal remedies available to the City in order to reduce unsafe EMF exposure to the greatest extent allowed by State and federal law."; "4c: Review siting opportunities for substantial EMF facilities that will reduce or eliminate community exposure to unsafe EMF to the greatest extent feasible."; "4d: Advocate that all new electrical transmission projects and telecommunications facilities have an EMF mitigation plan as part of the project's environmental review pursuant to CEQA."

We thank you for your careful consideration of this matter.

Sincerely,

Sandi Maurer  
Director, EMF Safety Network  
PO BOX 1016  
Sebastopol CA 95473  
707-827-0109

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Monday, May 02, 2016 10:35 AM  
**To:** Jonathan Atkinson  
**Subject:** FW: KOWS radio antenna

For file.

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

**From:** Mary Gourley  
**Sent:** Monday, May 02, 2016 10:34 AM  
**To:** John Eder <johneder@comcast.net>; Patrick Slayter <ps.sebcc@gmail.com>; Robert Jacob <robert@robert-jacob.com>; Sarah Glade Gurney <sarahcouncil@yahoo.com>; Una Glass <glasskyes@gmail.com>; unaglass@coastwalk.org (unaglass@coastwalk.org) <unaglass@coastwalk.org>  
**Cc:** Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>; Kenyon Webster <kwebster@cityofsebastopol.org>  
**Subject:** FW: KOWS radio antenna

Mary C. Gourley, MMC, City Clerk  
City of Sebastopol  
7120 Bodega Avenue  
Sebastopol, CA 95472  
Phone: 707-823-1153  
FAX: 707-823-1135  
Email: mgourley@cityofsebastopol.org  
City Web Site: [www.cityofsebastopol.org](http://www.cityofsebastopol.org) OFFICE HOURS: Monday – Thursday – 7:00 am – 5:30 pm (Closed 12:00 – 12:30 pm for Lunch)

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

**From:** hilary moore [mailto:[hilary@monitor.net](mailto:hilary@monitor.net)]  
**Sent:** Monday, May 02, 2016 10:31 AM  
**To:** Mary Gourley <[mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)>  
**Subject:** KOWS radio antenna

Dear City Council,

Please allow KOWS community radio to move their antenna to Sebastopol.

There is no other radio station in our county that encourages and welcomes so many diverse participants.

We should be proud to include such a community service!

Respectfully,  
Hilary Moore

## Jonathan Atkinson

---

**From:** WES <wesvaught@msn.com>  
**Sent:** Monday, May 02, 2016 11:04 AM  
**To:** Sarah Glade Gurney; Larry McLaughlin; Patrick Slater; Mary Gourley; Robert Jacob; John Eder; Una Glass; Jonathan Atkinson; Kenyon Webster  
**Subject:** Regarding the Appeal of new antenna location

Dear Sebastopol City Council and City Government Officials,

Thank you for your service to the community.

Please consider accepting the appeal of the new (KOWS) antenna location due to these issues:

- It will increase the radio signal radiation load in the local atmosphere.
- This atmospheric load has an unknown health risk.
- The World Health Organization of the United Nations, has designated microwave frequencies as a carcinogenic risk, especially in children.
- Children do not have their own, informed voice in what we subject them to.
- It sets a dangerous precedent for adding more antennas of any kind to operate locally.
- Corporate greed will leverage any perceived policy opening to increase the electromagnetic toxic load in our environment.
- Lets keep this lovely area of the world uncrowded with man-made radio waves of any kind, as much as possible.

Thank you for listening.

Sincerely, with Best Wishes,

Wes Vaught, local resident

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Monday, May 02, 2016 1:38 PM  
**To:** Jonathan Atkinson  
**Subject:** FW: KOWS antenna

For file.

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

**From:** Mary Gourley  
**Sent:** Monday, May 02, 2016 1:34 PM  
**To:** John Eder <johneder@comcast.net>; Patrick Slayter <ps.sebcc@gmail.com>; Robert Jacob <robert@robert-jacob.com>; Sarah Glade Gurney <sarahcouncil@yahoo.com>; Una Glass <glasskyes@gmail.com>; unaglass@coastwalk.org (unaglass@coastwalk.org) <unaglass@coastwalk.org>  
**Cc:** Kenyon Webster <kwebster@cityofsebastopol.org>; Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>  
**Subject:** FW: KOWS antenna

Mary C. Gourley, MMC, City Clerk  
City of Sebastopol  
7120 Bodega Avenue  
Sebastopol, CA 95472  
Phone: 707-823-1153  
FAX: 707-823-1135  
Email: mgourley@cityofsebastopol.org  
City Web Site: [www.cityofsebastopol.org](http://www.cityofsebastopol.org) OFFICE HOURS: Monday – Thursday – 7:00 am – 5:30 pm (Closed 12:00 – 12:30 pm for Lunch)

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

**From:** David Shatkin [mailto:dshatkin@sonic.net]  
**Sent:** Monday, May 02, 2016 1:33 PM  
**To:** Mary Gourley <mgourley@cityofsebastopol.org>  
**Cc:** livingroomlaura@gmail.com  
**Subject:** KOWS antenna

I am writing in support of moving the KOWS antenna to allow for a wider broadcast reach.

I live near the town of Bodega and only get "broadcast" reception when I drive to the top of Joy Road, so most of my listening is via the internet. I'm not sure if moving the antenna will benefit me but I listened to many of the KOWS programs and value community radio. I think Sebastopol and more of the West County would benefit from having "broadcast" access to this informative and entertaining resource.

David Shatkin

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This email has been checked for viruses by Avast antivirus software.  
<https://www.avast.com/antivirus>

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Monday, May 02, 2016 2:50 PM  
**To:** Jonathan Atkinson  
**Subject:** FW: The KOWS tower is a terrible idea for so many reasons - For the city council members

For file.

---

**From:** Mary Gourley  
**Sent:** Monday, May 02, 2016 2:48 PM  
**To:** John Eder <johneder@comcast.net>; Patrick Slayter <ps.sebcc@gmail.com>; Robert Jacob <robert@robert-jacob.com>; Sarah Glade Gurney <sarahcouncil@yahoo.com>; Una Glass <glasskyes@gmail.com>; unaglass@coastwalk.org (unaglass@coastwalk.org) <unaglass@coastwalk.org>  
**Cc:** Kenyon Webster <kwebster@cityofsebastopol.org>; Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>  
**Subject:** FW: The KOWS tower is a terrible idea for so many reasons - For the city council members

Mary C. Gourley, MMC, City Clerk

City of Sebastopol

7120 Bodega Avenue

Sebastopol, CA 95472

Phone: 707-823-1153

FAX: 707-823-1135

Email: [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)

City Web Site: [www.cityofsebastopol.org](http://www.cityofsebastopol.org)

OFFICE HOURS: Monday – Thursday – 7:00 am – 5:30 pm (Closed 12:00 – 12:30 pm for Lunch)



---

**From:** Andrea Schmitz [<mailto:ahagan@sonic.net>]  
**Sent:** Monday, May 02, 2016 2:42 PM  
**To:** Mary Gourley <[mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)>  
**Subject:** The KOWS tower is a terrible idea for so many reasons - For the city council members

Dear City Council Members,

My name is Andrea Hagan Schmitz. I respectfully ask that you do not approve the KOWS antenna tower set for installation on Pleasant Hill Road.

This project is too big, fundamentally changes too much of our beautiful West County to be approved without further study.

This antenna tower:

will be an ugly, industrial eyesore seen by all who travel Pleasant Hill and a large radius beyond.

is unnecessary; KOWS is already streaming world wide.

it changes dramatically the use of the land that it is proposed to be located on. The spot on Pleasant Hill that it is set to go on has water reservoirs that can barely be seen through the trees that surround them. This tower will loom above these trees at any height above 40 feet and will be seen from a large radius

it is only a matter of time before other things (dishes, etc...) are added to this tower making it even more ugly and radiation producing.

serves a small portion of our community but harms many.

Please look into this further.

Please do not vote yes.

Please do not have this tower be one of your legacies.

Very Sincerely,  
Andrea Hagan Schmitz

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Monday, May 02, 2016 3:32 PM  
**To:** Jonathan Atkinson  
**Subject:** FW: KOWS Radio

For file.

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

**From:** Mary Gourley  
**Sent:** Monday, May 02, 2016 3:22 PM  
**To:** John Eder <johneder@comcast.net>; Patrick Slayter <ps.sebcc@gmail.com>; Robert Jacob <robert@robert-jacob.com>; Sarah Glade Gurney <sarahcouncil@yahoo.com>; Una Glass <glassskyes@gmail.com>; unaglass@coastwalk.org (unaglass@coastwalk.org) <unaglass@coastwalk.org>  
**Cc:** Kenyon Webster <kwebster@cityofsebastopol.org>; Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>  
**Subject:** FW: KOWS Radio

Mary C. Gourley, MMC, City Clerk

City of Sebastopol

7120 Bodega Avenue

Sebastopol, CA 95472

Phone: 707-823-1153

FAX: 707-823-1135

Email: [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)

City Web Site: [www.cityofsebastopol.org](http://www.cityofsebastopol.org) OFFICE HOURS: Monday – Thursday – 7:00 am – 5:30 pm (Closed 12:00 – 12:30 pm for Lunch)

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

**From:** Frances Bailin-Petzel [<mailto:francesbailinpetzel@gmail.com>]  
**Sent:** Monday, May 02, 2016 3:15 PM  
**To:** Mary Gourley <[mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)>  
**Subject:** KOWS Radio

Please support this radio station by allowing the antenna to be where broadcast can be more comprehensive. Support our community. Thank you.

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Monday, May 02, 2016 3:32 PM  
**To:** Jonathan Atkinson  
**Subject:** FW: KOWS Radio

For file.

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

From: Mary Gourley  
Sent: Monday, May 02, 2016 3:22 PM  
To: John Eder <johneder@comcast.net>; Patrick Slayter <ps.sebcc@gmail.com>; Robert Jacob <robert@robert-jacob.com>; Sarah Glade Gurney <sarahcouncil@yahoo.com>; Una Glass <glasskyes@gmail.com>; unaglass@coastwalk.org (unaglass@coastwalk.org) <unaglass@coastwalk.org>  
Cc: Kenyon Webster <kwebster@cityofsebastopol.org>; Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>  
Subject: FW: KOWS Radio

Mary C. Gourley, MMC, City Clerk  
City of Sebastopol  
7120 Bodega Avenue  
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Phone: 707-823-1153  
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City Web Site: [www.cityofsebastopol.org](http://www.cityofsebastopol.org) OFFICE HOURS: Monday – Thursday – 7:00 am – 5:30 pm (Closed 12:00 – 12:30 pm for Lunch)

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

From: Frances Bailin-Petzel [mailto:[francesbailinpetzel@gmail.com](mailto:francesbailinpetzel@gmail.com)]  
Sent: Monday, May 02, 2016 3:15 PM  
To: Mary Gourley <[mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)>  
Subject: KOWS Radio

Please support this radio station by allowing the antenna to be where broadcast can be more comprehensive. Support our community. Thank you.

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Monday, May 02, 2016 4:47 PM  
**To:** Jonathan Atkinson  
**Subject:** FW: KOWS antenna

For file.

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

**From:** Mary Gourley  
**Sent:** Monday, May 02, 2016 4:45 PM  
**To:** John Eder <johneder@comcast.net>; Patrick Slayter <ps.sebcc@gmail.com>; Robert Jacob <robert@robert-jacob.com>; Sarah Glade Gurney <sarahcouncil@yahoo.com>; Una Glass <glasskyes@gmail.com>; unaglass@coastwalk.org (unaglass@coastwalk.org) <unaglass@coastwalk.org>  
**Cc:** Kenyon Webster <kwebster@cityofsebastopol.org>; Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>  
**Subject:** FW: KOWS antenna

Mary C. Gourley, MMC, City Clerk  
City of Sebastopol  
7120 Bodega Avenue  
Sebastopol, CA 95472  
Phone: 707-823-1153  
FAX: 707-823-1135  
Email: mgourley@cityofsebastopol.org  
City Web Site: [www.cityofsebastopol.org](http://www.cityofsebastopol.org) OFFICE HOURS: Monday – Thursday – 7:00 am – 5:30 pm (Closed 12:00 – 12:30 pm for Lunch)

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

**From:** Ann Chambers [mailto:sebastapple@exede.net]  
**Sent:** Monday, May 02, 2016 4:43 PM  
**To:** Mary Gourley <mgourley@cityofsebastopol.org>  
**Subject:** KOWS antenna

To the City Council:

I would like to add my support for the project of moving KOWS antenna, to extend the range. The station following is growing and the programs are getting better. It would be really nice to hear a broadcast and not have to go via my computer to get the programming.

Thank you for your wise consideration

Ann Chambers  
Sexton Valley Road

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Monday, May 02, 2016 5:00 PM  
**To:** Jonathan Atkinson  
**Subject:** FW: Appeal of Use Permit for Radio Tower in Community Facilities District  
**Attachments:** Cor to Sebastopol City Council re Use Permit for Radio Tower (3).pdf

For file.

---

**From:** Mary Gourley  
**Sent:** Monday, May 02, 2016 4:59 PM  
**To:** John Eder <johneder@comcast.net>; Patrick Slayter <ps.sebcc@gmail.com>; Robert Jacob <robert@robert-jacob.com>; Sarah Glade Gurney <sarahcouncil@yahoo.com>; Una Glass <glasskyes@gmail.com>; unaglass@coastwalk.org (unaglass@coastwalk.org) <unaglass@coastwalk.org>  
**Cc:** Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>; Kenyon Webster <kwebster@cityofsebastopol.org>  
**Subject:** FW: Appeal of Use Permit for Radio Tower in Community Facilities District

Mary C. Gourley, MMC, City Clerk

City of Sebastopol

7120 Bodega Avenue

Sebastopol, CA 95472

Phone: 707-823-1153

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Email: [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)

City Web Site: [www.cityofsebastopol.org](http://www.cityofsebastopol.org)

*OFFICE HOURS: Monday – Thursday – 7:00 am – 5:30 pm (Closed 12:00 – 12:30 pm for Lunch)*



---

**From:** Sara L. Breckenridge [<mailto:breckenridge@smwlaw.com>]  
**Sent:** Monday, May 02, 2016 4:57 PM  
**To:** Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>; 'sarahcouncil@yahoo.com' <[sarahcouncil@yahoo.com](mailto:sarahcouncil@yahoo.com)>; 'glasskyes@gmail.com' <[glasskyes@gmail.com](mailto:glasskyes@gmail.com)>; 'ps.sebcc@gmail.com' <[ps.sebcc@gmail.com](mailto:ps.sebcc@gmail.com)>; 'johneder@comcast.net' <[johneder@comcast.net](mailto:johneder@comcast.net)>; 'Robert@robert-jacob.com' <[Robert@robert-jacob.com](mailto:Robert@robert-jacob.com)>; Mary Gourley <[mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)>  
**Cc:** Tamara S. Galanter <[Galanter@smwlaw.com](mailto:Galanter@smwlaw.com)>  
**Subject:** Appeal of Use Permit for Radio Tower in Community Facilities District

Please find attached for your consideration in advance of tomorrow's city council meeting, a letter on behalf of Sebastopol Hills Alliance for Rural Preservation regarding the proposed use permit for a 70 foot radio tower at 1281 Pleasant Hill Road. An original will follow by U.S. mail. Please contact our office with any questions. Thank you.

Sara L. Breckenridge  
Secretary to Tamara S. Galanter  
Shute, Mihaly & Weinberger LLP  
396 Hayes Street  
San Francisco, CA 94102  
Tel: (415) 552-7272  
Fax: (415) 552-5816

SHUTE, MIHALY  
& WEINBERGER LLP

396 HAYES STREET, SAN FRANCISCO, CA 94102  
T: (415) 552-7272 F: (415) 552-5816  
www.smwlaw.com

TAMARA S. GALANTER  
Attorney  
galanter@smwlaw.com

May 2, 2016

*Via E-Mail and U.S. Mail*

Mayor Sarah Glade Gurney and  
Members of the City Council  
City of Sebastopol  
7120 Bodega Avenue  
Sebastopol, CA 95472

Re: Appeal of Use Permit for Radio Tower in Community Facilities  
District

Dear Mayor Gurney and Members of the City Council:

I am writing on behalf of our client, Sebastopol Hills Alliance for Rural Preservation (SHARP), with regard to the proposed use permit for a 70 foot radio tower on property owned by the City of Sebastopol at 1281 Pleasant Hill Road. As you may know, our firm has represented community groups, environmental organizations, and public agencies on CEQA and other land use matters since 1980, and I have done so for nearly 27 years. I am not only a partner at Shute, Mihaly & Weinberger, but also a resident of Sebastopol. Thus, my concern with the staff report's recommendation to deny the appeal and allow the proposed radio tower without first complying with CEQA is both professional and personal.

Our firm is the city attorney to two small cities in Northern California so understands the issues faced by cities like Sebastopol; we regularly advise those cities on how best to comply with CEQA. I have reviewed the staff report and all the accompanying material, including the letters submitted by the law offices of Perry, Johnson, Anderson, Miller & Moskowitz LLP ("Perry Letter") and by Grasseti Environmental Consulting ("Grasseti Letter"). I agree wholeheartedly with the analysis and conclusions in those letters. I am astonished that a city like Sebastopol, which prides itself on its environmental responsibility, would consider approving a use on its own public property without first complying with state law and requiring the environmental review mandated by CEQA.

Regardless of whether the radio tower extends 70 feet into the sky or the 65 feet proposed for the alternative tower design, this project does not qualify for a CEQA exemption. First, it is not eligible for the Class 1 categorical exemption for minor alterations of existing facilities. The radio tower is a new facility unrelated to the existing water tanks and will introduce a new use to the property in violation of the terms of this CEQA exemption. 14 Cal. Code Regs. §15301. Nor is the radio tower eligible for the Class 3 categorical exemption for new small facilities or structures given the tower's height and acknowledgment in the City's own zoning ordinance that the tower is a "Major Telecommunications Facility." 14 Cal. Code Regs. §15301; Sebastopol Zoning Ordinance §17.08.121. It is not the footprint of the project that determines whether it is a small structure, but all project dimensions, including its height.

Even if the radio tower did meet the physical parameters for a Class 1 or Class 3 exemption, CEQA would still require environmental review, as further detailed in the Grassetti Letter and Perry Letter. A public agency may not rely on a categorical exemption when evidence in the record demonstrates potential significant impacts due to the location of the project or where there is a reasonable possibility that the project will have a significant effect on the environment due to unusual circumstances. 14 Cal. Code Regs. §§ 15300.2(a) and(c). Because CEQA allows exemptions only for activities that do not have a significant effect on the environment, an exemption is improper if there is "any reasonable possibility" that a project may have a significant effect on the environment. *Wildlife Alive v. Chickering*, 18 Cal. 3d 1901, 205-06 (1976) (emphasis added). Thus, where substantial evidence shows that a project might impair the environment, an agency may not use a categorical exemption—even if other substantial evidence in the record might support a conclusion that the project would not harm the environment. *Azusa Land Reclamation Co., Inc. v. Main San Gabriel Basin Watermaster*, 52 Cal. App. 4th 1165, 1195 (1997).

Here the evidence submitted by legal and environmental experts and community members reveals significant visual impacts from both private properties and public roads within a designated scenic viewshed as well as inconsistencies with the City's own General Plan. CEQA requires environmental review to analyze, disclose, and mitigate these impacts. I urge the City Council to uphold the appeal and deny the use permit. If the Council wishes to approve the use permit, then it must first conduct adequate environmental review of the radio tower project.

Mayor Sarah Glade Gurney and Members of the City Council  
May 2, 2016  
Page 3

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP



Tamara S. Galanter

Cc: Larry McLaughlin, City Manager and City Attorney  
Mary Gourley, City Clerk

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Monday, May 02, 2016 5:23 PM  
**To:** Jonathan Atkinson  
**Subject:** FW: KOWS

For file.

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

**From:** Mary Gourley  
**Sent:** Monday, May 02, 2016 5:18 PM  
**To:** John Eder <johneder@comcast.net>; Patrick Slayter <ps.sebcc@gmail.com>; Robert Jacob <robert@robert-jacob.com>; Sarah Glade Gurney <sarahcouncil@yahoo.com>; Una Glass <glasskyes@gmail.com>; unaglass@coastwalk.org (unaglass@coastwalk.org) <unaglass@coastwalk.org>  
**Cc:** Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>; Kenyon Webster <kwebster@cityofsebastopol.org>  
**Subject:** FW: KOWS

Mary C. Gourley, MMC, City Clerk

City of Sebastopol

7120 Bodega Avenue

Sebastopol, CA 95472

Phone: 707-823-1153

FAX: 707-823-1135

Email: mgourley@cityofsebastopol.org

City Web Site: [www.cityofsebastopol.org](http://www.cityofsebastopol.org) OFFICE HOURS: Monday – Thursday – 7:00 am – 5:30 pm (Closed 12:00 – 12:30 pm for Lunch)

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

**From:** Ann Nisson [mailto:anisson@sonic.net]  
**Sent:** Monday, May 02, 2016 5:18 PM  
**To:** Mary Gourley <mgourley@cityofsebastopol.org>  
**Subject:** KOWS

Hi,

I just want you to know that I support KOWS radio station, and am writing to you because I will be unable to attend the meeting. The programming is excellent as well as a great source of local information.

I live in an area in Occidental where it is hard to get good radio reception and have been fortunate to be able to receive KOWS reception and listen full time. Unfortunately for me, the new antenna will not help me, I may not be able to receive the signal, but I still support the new antenna because so many more people will be able to receive a great radio station.

Thanks,  
Ann Nisson

## Jonathan Atkinson

---

**From:** dominique pacheco <dp@mixingreality.com>  
**Sent:** Monday, May 02, 2016 6:45 PM  
**To:** Jonathan Atkinson; Kenyon Webster; SergentforSupervisor@gmail.com  
**Subject:** Tomorrow's Council Meeting

Hello, I'm copying you on my letter to Council Members.

Dear Council Members,

First of all, may I introduce myself to you. My name is Dominique Pacheco, and I was a longtime (14 years) resident of Sebastopol until August of 2014 when I moved to Los Angeles. I still own a home at 1304 High School Road. I spoke with Mayor Gurney last week when I was visiting about the issue of the 70-foot tower being proposed by KOWS Radio Station in Occidental. In full disclosure, Mayor Gurney represented me in my divorce over a dozen years ago.

I'm *highly disturbed* by what I understand as negligence on the part of the City of Sebastopol and the Planning Commission.

Firstly, as a guest of the county on a small plot of land bought by the City to house its water supply back before the internet, wi-fi and the proliferation of cell phones and EFT emissions, I'm literally aghast that the State mandated environmental reports (CEQA) have not been requested or filed by the Planning Commission and therefore, THE CITY! We have since discovered that the Peregrine Falcon is protected by the Endangered Species Act. They live in the neighborhood and are spotted on a regular basis. Indeed while I was visiting, I witnessed one several times on walks around the neighborhood. This would most definitely raise the attention of our environmentally sensitive citizenry.

The group of neighbors that oppose what I term as strong-arming, is called [SHARP Sebastopol Hills Alliance for Rural Preservation](#). Mayor Gurney and I discussed their efforts on our phone conversation last week. Please check out the page, it lays out quite a few of the arguments SHARP intends to bring before you at the meeting tomorrow: <https://www.facebook.com/SHARPSebastopol/>

I'm writing the four of you to encourage you to review the book I was told they provided the Council last week before your deadline for such submissions.

It is also my understanding that the applicant also filed a change with you before the meeting. Does this mean the process will begin again?

That is the usual protocol under these circumstances as I understand it.

Unfortunately I have to be in Southern California this week. So I will not be attendance at the meeting tomorrow, but I am submitting this letter to you, the voting members of City Council Of Sebastopol as my personal addition to the opposition of this tower. And for the record, it is not my intention to stop the applicant from maintaining their station. It is my intention to express my disagreement with the way in which this tower has been fast tracked by the City

Planners and City Council.

I ask that you unanimously block this construction, and reconsider the positioning of this disruption to the peace and tranquility assured in a scenic corridor of our beloved county.

Thank you for your consideration.

With respect,

Dominique Pacheco  
415.215.0112

## Jonathan Atkinson

---

**From:** Alan Rosenzweig <arosenz704@aol.com>  
**Sent:** Monday, May 02, 2016 7:56 PM  
**To:** Jonathan Atkinson; Kenyon Webster  
**Subject:** Proposed illegal tower in our neighborhood

**Alan Rosenzweig**

**1648 Watertrough Rd**

**Sebastopol, CA 95473**

**5/02/2016**

Sebastopol City Council

P.O. Box 1776

Sebastopol, CA 95473

Dear Sebastopol City Council members:

I am opposed to the 70 foot KOWS radio antenna tower that is proposed at 1281 Pleasant Hill Road, in the scenic west Sebastopol hills. The beautiful rural areas surrounding Sebastopol should be preserved and not be blighted with industrial towers. Please look to the Sebastopol General Plan for guidance:

1. The views of open space and rolling hills surrounding Sebastopol contributes to our sense of identity and well-being.
2. Preserve and enhance scenic views of the hills west of Sebastopol.
3. Minimize community exposure to electromagnetic fields. Prudent avoidance is dictated.

The "greater good" is best served by preserving the beautiful areas surrounding Sebastopol, not by building more antenna towers.

Sincerely,

Alan Rosenzweig

Alan

## Jonathan Atkinson

---

**From:** Tamara Voyles <tamaravoyles@gmail.com>  
**Sent:** Tuesday, May 03, 2016 1:29 AM  
**To:** Jonathan Atkinson  
**Subject:** I oppose the tower.

Tamara Voyles  
2049 Blucher Valley Rd  
Sebastopol, Ca.  
95472

May 3, 2016

Dear Sebastopol City Council Members,

I oppose the 70 ft KOWS radio antenna tower which is proposed at 1281 Pleasant Hill Rd.

I bought my home in this neighborhood because of it's lack of such blights.

This tower will not blend in with the telephone poles along Pleasant Hill Rd,  
as was stated by a member of the council at the meeting on February 3.

Please do not begin this slippery slope of clutter which has become so common.

Sincerely,

Tamara Voyles

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Tuesday, May 03, 2016 7:57 AM  
**To:** Jonathan Atkinson  
**Subject:** FW: Support for the KOWS Antenna

For file.

---

**From:** Mary Gourley  
**Sent:** Tuesday, May 03, 2016 7:51 AM  
**To:** Kenyon Webster <kwebster@cityofsebastopol.org>; Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>  
**Subject:** FW: Support for the KOWS Antenna

Mary C. Gourley, MMC, City Clerk  
City of Sebastopol  
7120 Bodega Avenue  
Sebastopol, CA 95472  
Phone: 707-823-1153  
FAX: 707-823-1135  
Email: [mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)  
City Web Site: [www.cityofsebastopol.org](http://www.cityofsebastopol.org)  
*OFFICE HOURS: Monday – Thursday – 7:00 am – 5:30 pm (Closed 12:00 – 12:30 pm for Lunch)*



**From:** Terrie Schweitzer [<mailto:terriem@gmail.com>]  
**Sent:** Monday, May 02, 2016 6:27 PM  
**To:** Mary Gourley <[mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)>  
**Cc:** Donald True <[true@sonic.net](mailto:true@sonic.net)>; [sarahcouncil@yahoo.com](mailto:sarahcouncil@yahoo.com); [glasskyes@gmail.com](mailto:glasskyes@gmail.com); [ps.sebcc@gmail.com](mailto:ps.sebcc@gmail.com); [johnder@comcast.net](mailto:johnder@comcast.net); [Robert@robert-jacob.com](mailto:Robert@robert-jacob.com)  
**Subject:** Support for the KOWS Antenna

Dear Sebastopol City Council Members:

Sarah Glade Gurney, Mayor  
Una Glass, Vice Mayor  
Patrick Slayter, City Councilmember  
John Eder, City Councilmember  
Robert Jacob, City Councilmember

I'm writing to express support for the KOWS radio antenna move.

Community radio—via FM radio and not internet streaming—is imperative to serve the needs of local communities. KOWS programming content broadcasts on topics that are completely overlooked by mainstream radio. The nimble operations of a small community radio station can literally be a lifesaver in times of emergency.

I got to see just how important radio can be in opening access to news, information, and culture across all income levels when I served in Ghana, West Africa, in 2011-2013.

As you may already know, developing countries sometimes "leapfrog" in technologies, and actually adopt emerging technology more quickly than we do in the US. In Africa, you see this particularly with cell phone networks, which have leapfrogged wired communication systems. Physical cable or fiber is simply too expensive to install in far-flung communities.

Internet access in such areas is tightly controlled by telecom companies. Users pre-pay for data that they use, and streaming is simply too expensive for many people to afford. These types of plans and tiered data system are growing in abundance in the US and other developing countries as telecom companies wring every dollar out of users. Even now, many of us live in rural west county areas where cable internet is not available and we pay metered plans like this that simply make streaming too expensive.

FM Radio levels the playing field in Ghana, and it does so here as well. It's readily available to all income levels and provides access to information for all. It is the great democratizer.

I respectfully ask the Council to allow KOWS to move the antenna to Sebastopol.

Thank you.

Terrie Schweitzer

P. O. Box 804

Graton, CA 95444

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Tuesday, May 03, 2016 7:58 AM  
**To:** Jonathan Atkinson  
**Subject:** FW: Please STOP the KOWS tower!!

For file.

---

**From:** Mary Gourley  
**Sent:** Tuesday, May 03, 2016 7:57 AM  
**To:** John Eder <johneder@comcast.net>; Patrick Slayter <ps.sebcc@gmail.com>; Robert Jacob <robert@robert-jacob.com>; Sarah Glade Gurney <sarahcouncil@yahoo.com>; Una Glass <glasskyes@gmail.com>; unaglass@coastwalk.org (unaglass@coastwalk.org) <unaglass@coastwalk.org>  
**Cc:** Kenyon Webster <kwebster@cityofsebastopol.org>; Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>  
**Subject:** FW: Please STOP the KOWS tower!!

FYI

Mary C. Gourley, MMC, City Clerk

City of Sebastopol

7120 Bodega Avenue

Sebastopol, CA 95472

Phone: 707-823-1153

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*OFFICE HOURS: Monday – Thursday – 7:00 am – 5:30 pm (Closed 12:00 – 12:30 pm for Lunch)*



**From:** Barrie Noe [<mailto:barrienoe@gmail.com>]

**Sent:** Tuesday, May 03, 2016 7:52 AM

**To:** info <[info@cityofsebastopol.org](mailto:info@cityofsebastopol.org)>

**Subject:** Please STOP the KOWS tower!!

Our beautiful, rolling hills are NOT the place for a tower that is non-essential for Sebastopol CITY use. The water tanks are essential to Sebastopol, the tower is not. Please follow the 1994 City Council and deny the tower because you can NOT in good conscience allow a tower at that site. Please be good neighbors.

Barrie Noe

8555 Lawrence Lane

Sebastopol, CA 95472

## Jonathan Atkinson

---

**From:** Kenyon Webster  
**Sent:** Tuesday, May 03, 2016 11:20 AM  
**To:** Jonathan Atkinson  
**Subject:** FW: In Support of KOWS

For file.

---

**From:** Mary Gourley  
**Sent:** Tuesday, May 03, 2016 11:18 AM  
**To:** John Eder <johneder@comcast.net>; Patrick Slayter <ps.sebcc@gmail.com>; Robert Jacob <robert@robert-jacob.com>; Sarah Glade Gurney <sarahcouncil@yahoo.com>; Una Glass <glasskyes@gmail.com>; unaglass@coastwalk.org (unaglass@coastwalk.org) <unaglass@coastwalk.org>  
**Cc:** Kenyon Webster <kwebster@cityofsebastopol.org>; Lawrence McLaughlin <lmclaughlin@cityofsebastopol.org>  
**Subject:** FW: In Support of KOWS

Mary C. Gourley, MMC, City Clerk

City of Sebastopol

7120 Bodega Avenue

Sebastopol, CA 95472

Phone: 707-823-1153

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*OFFICE HOURS: Monday – Thursday – 7:00 am – 5:30 pm (Closed 12:00 – 12:30 pm for Lunch)*



**From:** Lisa Waltenspiel [<mailto:peachfigpear@gmail.com>]

**Sent:** Tuesday, May 03, 2016 11:14 AM

**To:** Mary Gourley <[mgourley@cityofsebastopol.org](mailto:mgourley@cityofsebastopol.org)>

**Subject:** In Support of KOWS

Dear City of Sebastopol,

I very much support the installation of the KOWS antenna in Sebastopol. KOWS is an important community resource and should be embraced for its positive contribution to music, education and information to our West

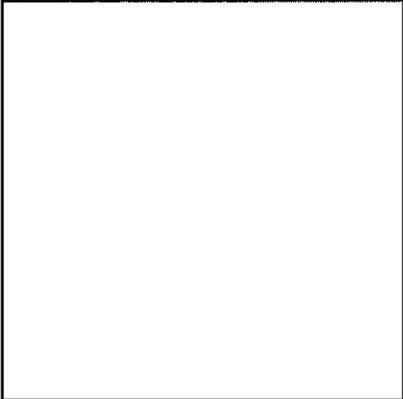
County neighborhood. I say this on a personal level and as a representative of Community Market.

Thanks for the opportunity to add my voice to the dialog.

Kind regards,

Lisa

--  
Lisa Waltenspiel  
Marketing Manager/Outreach Coordinator  
Community Market  
(707)494-6743



## Jonathan Atkinson

---

**From:** Kristine Norton <roberts.kristine5@gmail.com>  
**Sent:** Tuesday, May 03, 2016 12:49 PM  
**To:** Jonathan Atkinson  
**Subject:** no radio tower

Kristine Norton 1078 Sholem Ln. Sebastopol CA

May, 3rd 2016

Sebastopol City Council

Dear Sebastopol City Council members:

I am opposed to the 70 foot KOWS radio antenna tower that is proposed at 1281 Pleasant Hill Road, in the scenic west Sebastopol hills. The beautiful rural areas surrounding Sebastopol should be preserved and not be blighted with industrial towers. Please look to the Sebastopol General Plan for guidance:

1. The views of open space and rolling hills surrounding Sebastopol contributes to our sense of identity and well-being.
2. Preserve and enhance scenic views of the hills west of Sebastopol.
3. Minimize community exposure to electromagnetic fields. Prudent avoidance is dictated.

The "greater good" is best served by preserving the beautiful areas surrounding Sebastopol, not by building more antenna towers.

Sincerely,

Kristine Norton

## Jonathan Atkinson

---

**From:** Vanessa Ville <vanessaville11@gmail.com>  
**Sent:** Tuesday, May 03, 2016 1:30 PM  
**To:** Jonathan Atkinson  
**Cc:** westcountyyogamammas@googlegroups.com  
**Subject:** Regarding proposed tower

Sebastopol City Council  
P.O. Box 1776  
Sebastopol, CA 95473

Dear Sebastopol City Council members:

I am opposed to the 70 foot KOWS radio antenna tower that is proposed at 1281 Pleasant Hill Road, in the scenic west Sebastopol hills. The beautiful rural areas surrounding Sebastopol should be preserved and not be blighted with industrial towers. Please look to the Sebastopol General Plan for guidance:

1. The views of open space and rolling hills surrounding Sebastopol contributes to our sense of identity and well-being.
2. Preserve and enhance scenic views of the hills west of Sebastopol.
3. Minimize community exposure to electromagnetic fields. Prudent avoidance is dictated.

The “greater good” is best served by preserving the beautiful areas surrounding Sebastopol, not by building more antenna towers.

Sincerely,

Vanessa Ville

~ Vanessa



PO Box 1016 Sebastopol CA 95473 707-827-0109

Received  
MAY 2 2016  
City of Sebastopol

Email delivery to: Sarah Glade Gurney <sarahcouncil@yahoo.com> Larry McLaughlin <lwmclaughlin@juno.com> Patrick Slater <ps.sebcc@gmail.com> Mary Gourley <mgourley@cityofsebastopol.org> Robert Jacob <robertjacobcc@sonic.net> John Eder <johneder@comcast.net> Una Glass <unaglass@coastwalk.org> jatkinson@cityofsebastopol.org Kenyon Webster <kwebster@cityofsebastopol.org>

Sebastopol City Council and staff,

EMF Safety Network asks the council to support the appeal by SHARP (Sebastopol Hills Alliance for Rural Preservation) and to deny the permit to build a radio tower for KOWS on Pleasant Hill Road for the following reasons.

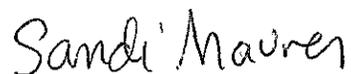
- 1). The neighbors do not want a radio tower near their homes. The City of Sebastopol agreed to not host a cell tower on that same property in 1994. It's neither right nor fair to do special favors for KOWS against the will of our county neighbors. These neighbors health, safety, views and property values are threatened by the radio tower and they are powerless to vote in Sebastopol.
- 2). KOWS has an alternative location: Respini Ranch.
- 3). A new tower will be a magnet for antenna applications. Co-locations laws can and will likely change. City councils will change. Although Sebastopol might be able to only host the KOWS antenna for now, there's no guarantee Sebastopol won't be forced to allow other telecommunications antennas in that location in the future.
- 4). The antenna transmits RF radio frequency radiation. See this new RF study recently published in IEEE magazine: "RF fields can change radical concentrations and cancer cell growth rates" <http://ecee.colorado.edu/~ecen4341/supplement/Barnes%20Greenebaum%20IEEE%20article%20March%202016.pdf>
- 5). Approving SHARP's appeal honors Sebastopol's draft general plan which calls for reducing EMF exposure. See page 10-5 under Community Health and wellness

[http://sebastopol.generalplan.org/sites/default/files/Sebastopol%20General%20Plan GPAC%20Draft 12-22-15.pdf](http://sebastopol.generalplan.org/sites/default/files/Sebastopol%20General%20Plan%20GPAC%20Draft%2012-22-15.pdf)

Relevant excerpts: “3: Promote community education and awareness on EMF health information and stay abreast of current research and regulations.”; “4: Continue to regulate the location and appearance of telecommunications and electrical facilities.”; “4a: Explore programs and legal remedies available to the City in order to reduce unsafe EMF exposure to the greatest extent allowed by State and federal law.”; “4c: Review siting opportunities for substantial EMF facilities that will reduce or eliminate community exposure to unsafe EMF to the greatest extent feasible.”; “4d: Advocate that all new electrical transmission projects and telecommunications facilities have an EMF mitigation plan as part of the project’s environmental review pursuant to CEQA.”

We thank you for your careful consideration of this matter.

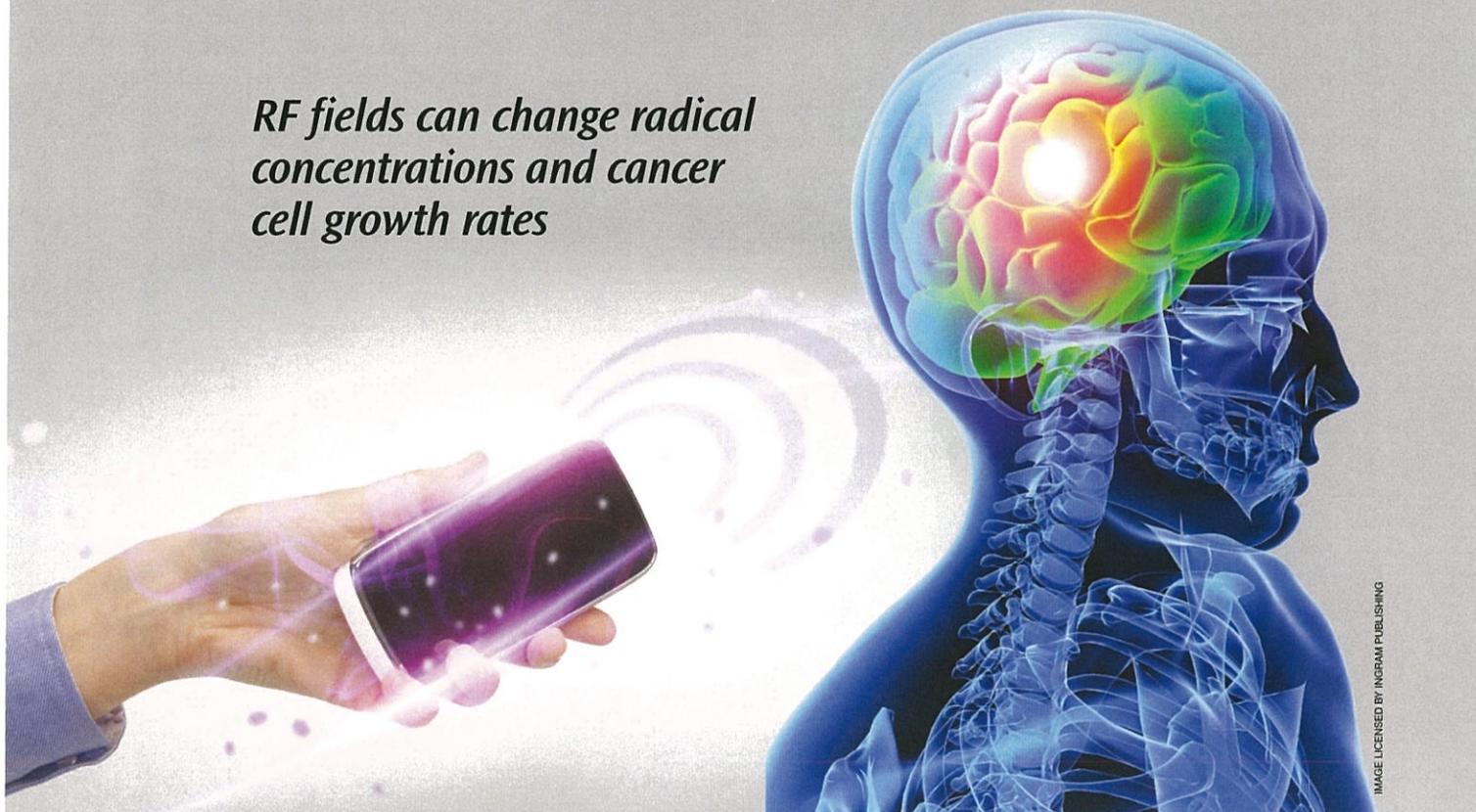
Sincerely,

A handwritten signature in black ink that reads "Sandi Maurer". The script is cursive and fluid.

Sandi Maurer  
Director, EMF Safety Network

# Some Effects of Weak Magnetic Fields on Biological Systems

*RF fields can change radical concentrations and cancer cell growth rates*



by Frank Barnes and Ben Greenebaum

Concerns have been raised about the possible biological effects of nonionizing radiation since at least the late 1950s with respect to radar, other radio, and microwave sources. More recent concerns have arisen about the potential effects of low-intensity fields, including low-frequency fields from the electric power generating, transmission, and distribution system and the devices it energizes, as well as intermediate, radio-frequency (RF), and higher-frequency radiation from devices such as cell

phones, broadcast antennas, Wi-Fi, security monitors, and so forth. These are concerns about the direct effects of radiation on humans or other organisms. They are distinct from the electromagnetic compatibility issues that concern interference by the fields from one device with the function of another, though human health can be indirectly affected by electromagnetic interference with the function of medical devices, including hospital equipment or pacemakers.

Because of the difficulties in establishing the direct biological effects of long-term low-level exposures, the lack of an understood mechanism, and difficulties in obtaining reproducible results, the guidelines for exposure limits have

Digital Object Identifier 10.1109/MPREL.2015.2508699  
Date of publication: 7 March 2016

been set based on relatively short-term exposures (minutes) that show clear-cut damage with the addition of a substantial safety factor. The current guidelines from the U.S. Federal Communications Commission (FCC) for limiting exposures in free space to the general public for the frequency range 100 kHz–100 GHz are given in Table 1. These guidelines are based on American National Standards Institute (ANSI) and IEEE recommendations. For cell phones, the specific absorption rate (SAR) is limited to 1.6 W/kg averaged over 1 g of tissue. These limits have been set based on providing a significant safety factor over exposure levels known to cause damage, where the primary damaging mechanism is heating and an increase in temperature. At low frequencies, the limits are based on induced current densities that would excite nerve firing, and the permissible exposures recommended by IEEE C95.6 are shown in Table 2. The International Commission on Nonionizing Radiation Protection (ICNIRP) sets electric field exposure limits at 50 Hz to 5 kV/m and magnetic flux density limits at 100  $\mu$ T. It also sets guidelines for general public exposures in the frequency range 3 kHz–10 MHz at  $E = 83$  V/m,  $B = 27$   $\mu$ T and a whole-body SAR = 0.08 W/kg, and 1.6 W/kg over 1 g.

In general, environmental exposures at any frequency do not exceed these guidelines, especially for the general public. Instances of occupational exposures approaching or exceeding the guidelines are less uncommon [1]. However, the time constants for cell growth cycles and many other growth

**Damages, such as aging, cancer, and Alzheimer's, are associated with radical concentrations that are elevated for extended periods of time.**

phenomena are often hours or days. The most favored proposed mechanism for effects from low-level, long-term exposures involves radicals, such as super oxide  $O_2^{\cdot-}$ ,  $NO_x$ , and  $H_2O_2$ , which is readily converted into the radical  $OH^{\cdot}$ , molecules with unpaired electron spins that are highly reactive. These molecules are both signaling molecules and molecules that can cause damage to important biological molecules, such as lipids and DNA. Damages, such as aging, cancer, and Alzheimer's, are associated with radi-

cal concentrations that are elevated for extended periods of time [2]. In this article, we present the possible theoretical mechanisms and experimental data that show long-term exposures to relatively weak static, low-frequency, and RF magnetic fields can change radical concentrations. As a consequence, a long-term exposure to fields below the guideline levels may affect biological systems and modify cell growth rates, while an organism's built-in mechanisms may compensate for these changes.

### Background

Much of the public concern dates from epidemiological studies that show small, though statistically significant increases in childhood leukemia for children living near power lines and possible increases in brain tumors for heavy use of cell phones. The early study by Wertheimer and Leeper [3] has shown an increase that was just statistically significant in childhood leukemia for children living near power lines. Of the many additional studies since then,

**Table 1. The FCC limits for maximum permissible exposure (MPE).**

**(A) Limits for Occupational/Controlled Exposure**

Frequency Range (MHz)	Electric Field Strength (H) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  H <sup>2</sup> ·  H  <sup>2</sup> or S (min)
0.3–3	614	1.63	(100)*	6
3–30	1842/f	4.89/f	(900/f <sup>2</sup> )*	6
30–300	61.4	0.163	1	6
300–1,500			f/300	6
1,500–100,000			5	6

**(B) Limits for General Population/Uncontrolled Exposure**

Frequency Range (MHz)	Electric Field Strength (H) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  H <sup>2</sup> ·  H  <sup>2</sup> or S (min)
0.3–1.34	614	1.63	(100)*	30
1.34–30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30–300	27.5	0.073	0.2	30
300–1,500			f/1,500	30
1,500–100,000			1	30

f = Frequency in MHz

Source: OET Bulletin 56, 4th edition, 08/1999, FCC

\*Plane-wave equivalent power density

**Table 2. IEEE C95.6 environmental electric field MPEs, whole body exposure.**

General Public		Controlled Environment	
Frequency Range (Hz)	E-rms* (V/m)	Frequency Range (Hz)	E-rms* (V/m)
1–368 <sup>c</sup>	5,000 <sup>a,d</sup>	1–272	20,000 <sup>b,e</sup>

<sup>a</sup> Within power line rights of way, the MPE for the general public is 10 kV/m under normal load conditions.  
<sup>b</sup> Painful discharges are readily encountered at 20 kV/m and are possible at 5–10 kV/m without protective measures.  
<sup>c</sup> Limits below 1 Hz are not less than those specified at 1 Hz.  
<sup>d</sup> At 5 kV/m induced spark discharges will be painful to approximately 70% of adults (well-insulated individual touching ground).  
<sup>e</sup> The limit of 20,000 V/m may be exceeded in the controlled environment when a worker is not within reach of a grounded conducting object. A specific limit is not provided in this standard.  
 \*rms = root mean square

about half show small correlations with proximity to power lines and/or weak magnetic fields, and about half do not [4]. However, the possibility that there may be a cause and effect for a long-term exposure to low levels of low-frequency electromagnetic fields has led to the classification by the International Agency for Research on Cancer (IARC), an agency of the World Health Organization (WHO), as a possible cause of cancer. However, this classification has not been included in the International Committee on Electromagnetic Safety or ICNIRP reference levels because of conflicting results and a lack of physical mechanisms by which weak magnetic fields could be expected to modify biological systems. The IARC has published an extensive review of the research epidemiological and laboratory research used in its determination concerning cancer [5]; the WHO has previously published a similar monograph concerning low-frequency field effects and various diseases, including cancer [6].

Although the earliest questions about exposure to high-frequency fields predate the concerns arising from power frequencies, these were generally related to higher-intensity exposures of military personnel or industrial workers. Concerns about more widespread exposures of the general public arose with the advent of the cell phone. Similar to the situation with power frequency fields, there have been many epidemiological studies on RF exposures and, particularly, cell phone use [7]. Among the largest of these is the Interphone study [8]. There have been many challenges to interpretations of the results of this study that no increase in risk of glioma or meningioma was observed with the use of mobile phones. Another view is that the data definitely show an increased risk of brain cancers for individuals with long-term, heavy cell phone use. This report also shows a slightly reduced incidence of cancers for light users. Many challenges to the various conclusions are associated with possible selection bias and the accuracy of the exposure data. Roosli [9] provides detailed discussions of the weaknesses of many epidemiology studies.

However, the net result of a review of many epidemiology studies is that there is epidemiological evidence for an association of small increases in cancer rates with long-term exposures to magnetic fields, and the IARC has also classified RF exposure as a possible carcinogen. It has also published a volume summarizing the epidemiological and laboratory RF research related to this finding [10]. The WHO published a 1993 monograph on RF exposure effects and disease [11] and is expected to publish a revision in the near future.

While public concern about the field effects is primarily about adverse health effects, there is also considerable interest in the potential of using either low- or high-frequency fields beneficially. At present, medical uses of electromagnetic fields involve relatively high intensities. For example, RF fields are used for their heating effect in diathermy and ablation of tissues, and pulsed lower-frequency magnetic fields have entered medical practice to encourage healing of recalcitrant bone fractures. A long-term goal of research in this area is to find reliable field effects at lower levels that could be used as noninvasive diagnostic or treatment tools or as research probes of underlying biological processes.

It has long been known that magnetic fields can change chemical reaction rates and radical concentrations. Most of these studies were done with relatively large magnetic fields, 1 mT or greater. Reviews of much of this work have been done by Grissom [12] and Steiner and Ulrich [13]. These reviews show that both changes in nuclear spin states and changes in the angular momentum for electrons in a molecule occur with variations in the magnetic field and affect chemical reaction rates. Some of the earliest work on the effects of nuclear polarizations states on chemical reaction rates of alkyl radicals is described in [14]. This work is followed by numerous papers showing the effects of nuclear polarization and nuclear spin states on chemical reaction rates, including Kaptein [15], Charlton and Bargon [16], Den Hollander et al. [17], and Buchachenko [18]. Woodward et al. [19], among others, find many RF absorption spectra lines in the range 1–160 MHz. Reviews of dynamic spin chemistry by Nagakura et al. [20] and by Hayashi [21] present detailed descriptions of the theory for the conversion of singlet to triplet states for radical pairs and the resulting changes in radical concentrations as a function of magnetic field strength, orientation, and the viscosity of the medium.

Radicals perform a wide variety of biological functions. Reactive oxygen species (ROS), such as superoxide, O<sub>2</sub><sup>-</sup>, and nitrogen species, such as NO<sub>x</sub>, are used both as signaling molecules and to attack bacteria and other pathogens. O<sub>2</sub><sup>-</sup> is released by neutrophils to as part of the immune systems response in killing bacteria. NO can activate guanylate cyclase, which results in a rise in cyclic guanosine monophosphate in smooth muscle tissue and vasorelaxation. It is also involved in the activation of macrophages [22]. In addition, the

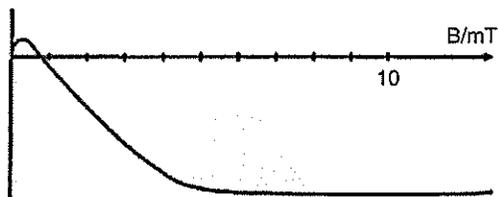
*Concerns about more widespread exposures of the general public arose with the advent of the cell phone.*

ion-radical mechanism for the phosphorylation of a very large number of biological molecules is affected by magnetic fields, and phosphorylation is an important step in many biological signaling systems and the activation of biological processes [23].

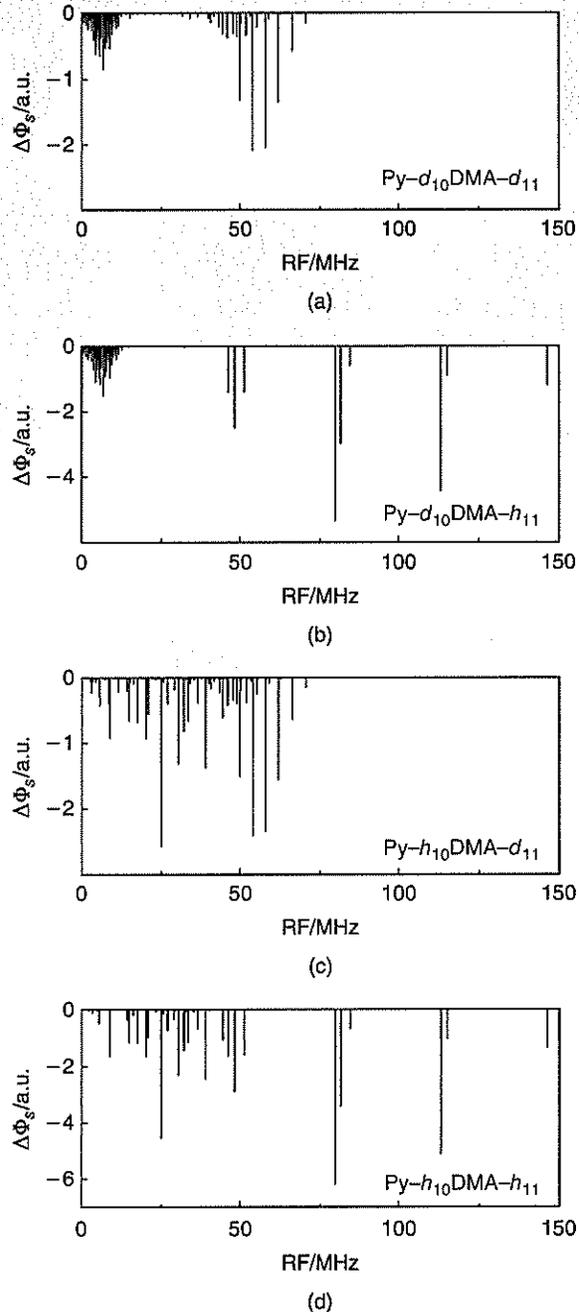
Our work in this area was triggered by the observation that reducing the Earth's magnetic field to less than 1  $\mu\text{T}$  inhibited the growth of fibrosarcoma HT1080 cells [24] and the theoretical and experimental work by Batchelor et al. [25]. Data from one such experiment involving radicals are shown in Figure 1, and additional work is summarized by Brocklehurst and McLauchlan [26].

A peak value for the concentration of the radical near the Earth's magnetic field with a magnetic flux density range below 1 mT is shown in Figure 1. This result, along with the results given in Figure 2 from [19], shows a large number of resonances in the radical spectra throughout the RF spectrum, provides the theoretical bases by which weak magnetic fields can change radical concentrations.

It is clear from these results that changes in magnetic fields on the order of tens of microtesla can change the concentrations of radicals. We have elaborated on these results to show that one can expect to change radical concentration when magnetic fields are applied at frequencies corresponding to resonances and at level crossings [27]–[29]. Some of these resonances may have narrow line widths corresponding changes in nuclear spin states [30]. In addition, as the static magnetic field (SMF) is varied in



**FIG 1** A schematic representation of the experimentally observed field effect in the pyrene/1,3-dicyanobenzene system. At the lowest low-field values, including that of the geomagnetic field, the effect of the field is to increase the proportion of radicals, which survives the geminate period and diffuses into the surroundings, but at high field, the reverse happens. The schematic presentation is used, since the actual published results measured the derivative of the curve, and to display them would introduce an unnecessary complication [25].



**FIG 2** (a)–(d) The RF spectra for pyrene<sup>+</sup>-N,N-dimethylaniline<sup>++</sup>(DMA<sup>++</sup>) [19].

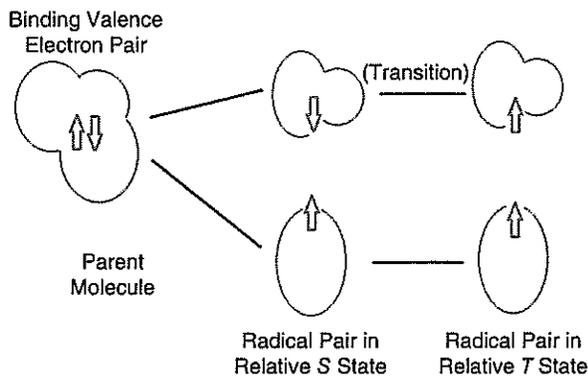
intensity and as the angle between the static and ac magnetic field changes, the recombination rates between the fragments of a radical pair will change [30]. More recent work shows a quantum limit for the detection of weak magnetic fields by changes in chemical reactions using radicals to be on the order of tens of nanotesla [31].

### Hypothesis

The proposed hypothesis, which is based on extensive work by others, e.g., [2], [18], [19], [26], and, extended by some of our own [27], is that weak magnetic fields change the rate of recombination for radical pairs that are generated by the metabolic activity in cells, which, in turn, change the concentration of radicals such as  $O_2^{\cdot -}$  and molecules such as  $H_2O_2$ . Most of the time, the signaling properties of these molecules generate antioxidants and other radical scavengers so that damaging health effects are not seen, and, in some cases, positive effects, such as the activation of the immune system, may be observed. However, long-term exposure to elevated magnetic fields can lead to elevated radical concentrations and an association with aging, cancers, and Alzheimer's. This hypothesis is supported by some theoretical and experimental results. However, because biological systems contain a lot of feedback, feedforward, and repair processes, changes in radical concentrations will often have no observable effects. There is much work that needs to be done to illuminate the conditions in which magnetic fields can lead to either positive health effects or negative health effects, and observable effects may only occur when the exposures are combined with other biological stresses.

### Some Theoretical Observations

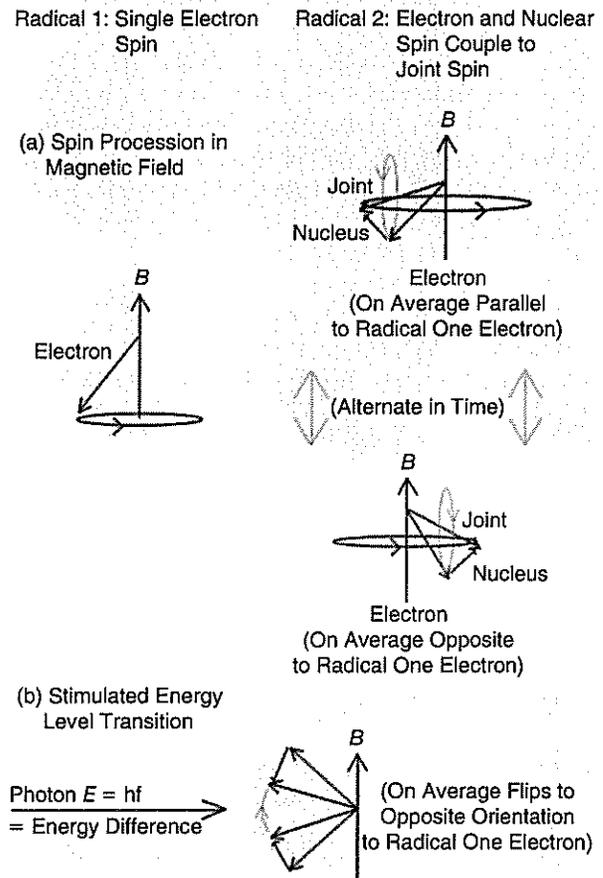
Radicals are created during many biological reactions, including the metabolic processes in mitochondria. Figure 3 shows a schematic for the formation of a radical pair in either a singlet (S) state, where the spins are aligned with electron spins with opposite spins, or a triplet (T) state, with the spins parallel.



**FIG 3** The vector representations of the components of the electron spin, electron angular momentum, and the nuclear spin with respect to the applied magnetic field.

In the singlet state, these pairs recombine with typical lifetimes between  $10^{-6}$  and  $10^{-10}$ s. In the triplet state, they are not allowed to recombine, and the opportunity for them to diffuse away increases so that they can react with other molecules. The coupling between the unpaired electrons and the nuclei in each fragment of the radical pair is different and, typically, can be described by magnetic fields in the range  $10 \mu T$ – $3 \text{ mT}$  [26]. For many radicals, this is stronger than the Earth's magnetic field flux density of about  $50 \mu T$  so that the quantum numbers describing the state of each fragment are determined by the sum  $F$  of the electron angular momentum and electron spin  $J$  and the nuclear spin  $I$  (see Figure 4).

The unpaired electrons in the outer orbit of each of the radical pair fragments can be thought of as rotating about their nuclei at different rates, so the net magnetic



**FIG 4** A schematic diagram of evolution of spins of two members of a radical pair, one with only an electron spin and the other with both an electron and a nonzero nuclear spin, illustrating changes between relative S and T states under two sets of conditions. (a) Precession of spins in an external magnetic field. (b) Stimulated transition by absorption of photon of energy corresponding to energy difference between levels in one radical. A photon must also carry angular momentum corresponding to the difference between levels.

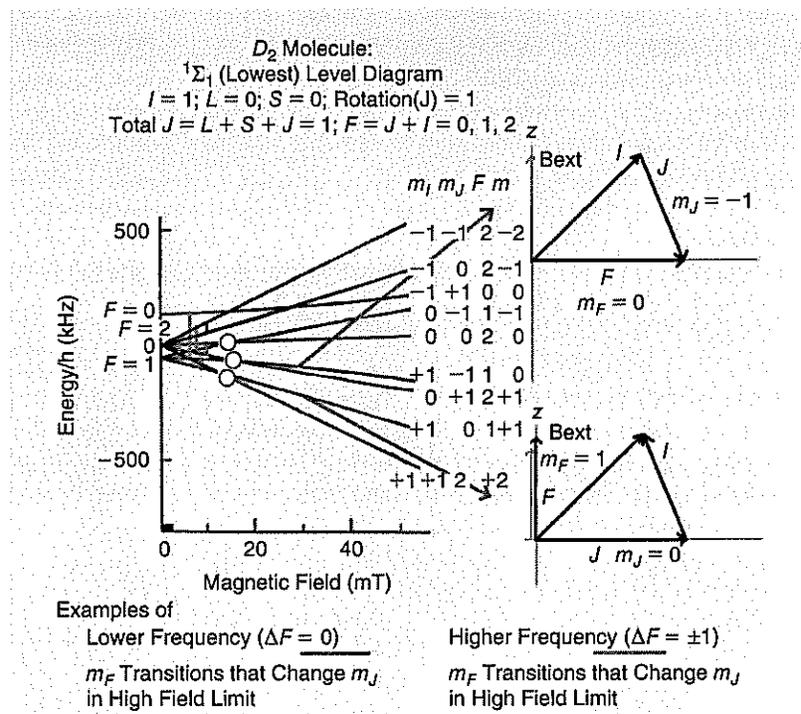
moments for the two fragments switch from an  $S$  to a  $T$  state and back [26]. The rate at which this happens is perturbed by the external magnetic field. The energy levels in each fragment are shifted by different amounts by the external magnetic fields [see Figure 4(a)].

Changes in the applied magnetic field shift the size of the energy barrier for the recombination and the recombination rate. Nuclear magnetic spectra may have very narrow absorption lines with bandwidths of a few cycles with corresponding lifetimes for excited states of seconds or longer. Magnetic fields at the frequency corresponding to differences in the energy levels can drive molecules between energy levels of different nuclear spin states and change the concentration in these energy levels, which, in turn, can change the recombination lifetimes for radical pairs [27], as shown in Figures 4(b) and 5. Note that these narrow line widths can lead to saturation effects with magnetic fields in the range  $10^{-8} - 10^{-9}$  T [32]. With large molecules that contain many atoms with nuclear spins, the calculations of the recombination rates are very complex as the contributions to the magnetic field seen by the electron that is active is dependent on the nuclear spin of each atom, its distance from the electron, and the shielding by other electrons in different

orbits. For examples, see the calculations in [19], [25], [26], [28], and [33]. For our purposes, we will assume that the sum of these fields is large enough so that coupling can lead to relatively sharp resonances, and the nuclear spin states are important in determining the recombination rates for the radical pairs. Nuclear resonance spectroscopy at radio frequencies shows that nuclear spin states may have lifetimes of seconds or longer and corresponding resonant line widths of a few cycles [30]. We postulate that, in weak magnetic fields, where the magnetic coupling between the active electrons and the nuclei in the radicals is stronger than the perturbing external field, that we will also see shifts in radical concentrations that are frequency and amplitude dependent with relatively narrow line widths [27], as shown in Figure 5. This figure also gives an explanation for effects seen when the ambient magnetic is shielded [37], for then level energy differences are below the natural line widths and spontaneous transitions can occur.

### Experimental Results

The experiments that most clearly show that weak magnetic fields affect biological processes and radical concentra-

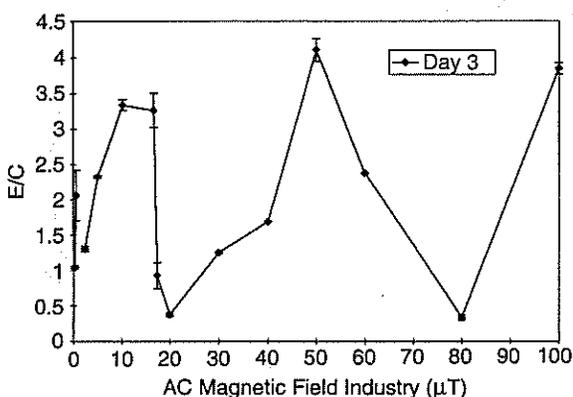


**FIG 5** The energies of  $D_2$  molecule states as a function of magnetic field with low field ( $F, m$ ) and high field ( $J, m_J, I, m_I$ ). Quantum number labels  $m_J$  and  $m_I$  are the projections of the electron angular momentum and nuclear spin on the external magnetic fields. Note the linearity of curves in low-field region, where  $F = J + I$  is a good quantum number, and curvature as well as crossovers as field increases (after Ramsey [29]). Vertical lines (left diagram) indicate allowed transitions. Relative orientations of one transition's upper and lower state angular momenta are shown (right upper and lower diagrams). In the left diagram, circles indicate the examples of possible level-crossing transition points and box on horizontal axis indicates the region of possible zero-field transitions.

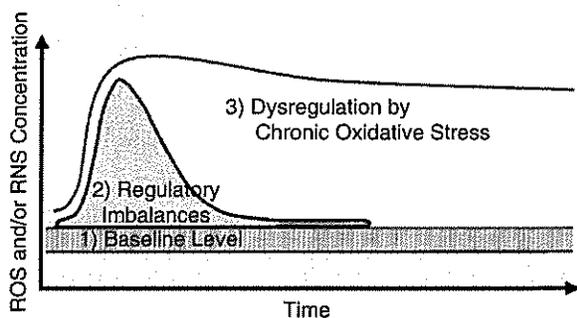
tions are those that involve changes in the SMF. The fact that birds, salmon, and other animals can sense small changes in the Earth's magnetic field and use them for navigation says that biological systems can sense small changes in these fields. Experiments in vitro that show changes in the growth rates of cells are more relevant to potential health effects. The results in reference [24] have shown a reduction in the growth rate of *E. coli* by reducing the SMF below  $18 \mu\text{T}$ . It has also been shown that we can reduce the growth rates of HT1080 fibrosarcoma cells by 20–30% by reducing the SMF to less than  $1 \mu\text{T}$ , while normal fibroblast cell are reduced by less than 10%.

In addition, we have data that show that changes in magnetic field change the growth rate of cancer cells more than normal cells of the same type. Typically, the interior of a quiescent normal cell is more negative with respect to the exterior than growing cells or cancer cells of the same type. For example, a normal fibroblast cell might have a membrane potential of  $-70$  mV and a fibrosarcoma  $-30$  to  $-35$  mV [34]. Radicals have been shown to modify the channel currents of  $\text{Na}^+$ ,  $\text{K}^+$ , and  $\text{Ca}^{++}$  [35]. Preliminary data on fibrosarcoma cells in our lab show both changes in oxidative stress and

**Experiments in vitro that show changes in the growth rates of cells are more relevant to potential health effects.**



**FIG 6** Normalized mastocytoma cell growth at 60 Hz and  $B_{dc} = 38 \mu\text{T}$  [38].



**FIG 7** The regulatory events and their dysregulation depend on the magnitude and duration of the change in ROS or reactive nitrogen species (RNS) concentration. ROS and RNS normally occur in living tissues at relatively low steady-state levels. The regulated increase in superoxide or nitric oxide production leads to a temporary imbalance that forms the basis of redox regulation. The persistent production of abnormally large amounts of ROS or RNS, however, may lead to persistent changes in signal transduction and gene expression, which, in turn, may give rise to pathological conditions [2].

membrane potential for changes in magnetic fields from 45 to 100  $\mu\text{T}$  and 200  $\mu\text{T}$  (unpublished results).

At low frequencies, the magnetic fields can both increase and decrease the growth rates of cells. Zmyslony et al. [36] have shown changes in the number of free oxygen radicals in rat lymphocytes in vitro upon the application of weak 50-Hz magnetic fields. Prato et al. [37] have shown a reduction in the pain sensitivity upon exposure to 33 nT at 30 Hz. Bingham [38] has shown both increases and decreases in the growth rates of mastocytoma cells at 60 Hz, as shown in Figure 6. Note that the location of the peaks shift with changes in the SMFs and also with the induced electric fields and the corresponding induced current densities.

Usselman et al. [39] have shown that for rat pulmonary arterial smooth muscle cells, enhanced cell proliferation was observed with continuous applied 45  $\mu\text{T}$  SMF and 7 MHz at 10  $\mu\text{T}_{\text{RMS}}$  magnetic fields compared with the control group with only 45  $\mu\text{T}$  SMF. The RF magnetic fields enhanced cellular proliferation by up to 40% on day two and 45% on day three in proportion to the SMF control group, and at three days, it led to a decrease of 45% in  $\text{O}_2^{\cdot -}$  and an increase in  $\text{H}_2\text{O}_2$  of 50%. Note that the calculated SAR is estimated to be approximately 0.12 W/kg. Other results [40] have shown that the exposure of HT1080 fibrosarcoma cells to 45  $\mu\text{T}$  SMFs oriented vertical to the plane of growth or to SMFs combined with weak 5- and 10-MHz RF magnetic fields of 10  $\mu\text{T}_{\text{RMS}}$  perpendicular to the static field inhibits the growth rate. Cell numbers were reduced up to 30% on day two for the cells exposed to the combination of SMF and a 10-MHz RF magnetic field compared with the SMF control cells. In addition, cells exposed to 10-MHz magnetic fields for 8 h increased  $\text{H}_2\text{O}_2$  production by 55% [40]. The results demonstrate an overall magnetic-field-induced biological effect that shows elevated  $\text{H}_2\text{O}_2$  levels with accompanying decrease in cellular growth rates. These effects are time dependent, and different cells can respond in opposite directions. Both the forgoing results are believed to occur through the interaction of the RF fields with hyperfine transitions between energy level associate with the generation or absorption of the radicals in the cells.

In addition, exposure at 1 mW and an estimated SAR of 0.76 W/kg for 10 h have been shown to reduce the growth rate of *E. coli* by a more than a factor of two while doing very little to *B. subtilis* [41].

## Discussion

We have shown that both a theoretical base and the experimental results exist, demonstrating that weak static, low-frequency, and/or high-frequency magnetic fields can affect the concentration of radicals. There are also results that indicate that weak magnetic fields can change the growth rate of cells. However, there are many experiments where no changes are seen. This, we believe, is due to the many feedback and repair processes in the body. Droge [2] has shown in Figure 7 how extended elevations of ROS and nitrogen oxide species lead undesired biological effects, such as aging, cancer, and Alzheimer's.

The question becomes: What does all of this mean for people designing wireless power-transfer systems? Typical systems have been designed so that the fringing fields meet current safety standards that have been set on relatively short-term exposures. For example, a system for charging car batteries using capacitive coupling at 6.78 MHz has a calculated maximum electric field of 33 V/m at 0.25 m from the charging plates, and the magnetic flux density is expected to be less than a few microtesla. A 6.6-kW system being developed under contract through Oak Ridge National Labs for charging car batteries using two coils separated 160 mm at 22–26 kHz with 85% efficiency has fringing magnetic fields of less than 6.125  $\mu$ T and fringing electric fields less than 87 V/m at 0.8 m.

These values are moderately close to the ICNIRP standards of 83 V/m and 27  $\mu$ T. However, the magnetic flux density is only a little less than 10  $\mu$ T, which has been shown to change a smooth muscle cell growth rate over a period of days. As people are not likely to stand next to their car for days, long-term effects are not likely to be important. However, there may well be other situations where designers may need to be concerned about the possible effects of long-term exposures.

## Conclusions

We think that there are now both the theoretical bases and sufficient experimental results for further consideration of the possibility that long-term exposures to magnetic fields can lead to both useful applications in treating diseases and to undesired health effects. It is expected that these effects are frequency, amplitude, and time dependent. They will also be dependent on other biological conditions that can lead to changes in radical concentrations. In short, we have only begun to scratch the surface, and there is a lot of exciting research to be done before we can understand the ways in which low levels of magnetic fields can be used to control biological systems.

*The question becomes:  
What does all this  
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power-transfer  
systems?*

## Acknowledgment

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HOME  
OVERVIEW OF  
WIRELESS  
CANCER

WE ARE TOWNS

THE CANCERS  
OF THE FUTURE

KILL ZONES  
USA

THE SCULL OF  
WIRELESS

DON'T DO THE  
DEED

DEAD  
PLEASANTS?

HOME

WE ARE TOWNS

THE SICKNESS  
OF THE FUTURE

IN THE NEWS

LISTEN TO THE  
MUSIC

WE'RE STOP

WE'VE START  
RISING

**Medical researchers with Masaryk University of Czech Republic and the National Academy of Sciences of Ukraine, 2011:** "Population living in the area nearby (up to 350 meters) the cell phone base transmitting station (850 MHz 1500 Watts of full power) during one year of operation and matched individuals from other areas have been compared in Israel. There were 4.15 times more cases of cancer in the transmitter station area than in the rest of the city. Relative cancer rates for females were 10.5 times higher in close to the station area, 0.6 for control area and 1.0 for the whole town....Keeping in mind that a very significant increase in cancer took place during only a one year period, the authors of the study suggested that microwave could provoke latent cases of cancer in inhabitants of the area nearby the transmitting station." [1]

**Dr. Martin Blank, College of Physicians and Surgeons, Columbia University:** "Since we know that an accumulation of changes or mutations in DNA is associated with cancer, there is good reason to believe that the elevated rates of cancers among persons living near radio towers are probably linked to DNA damage caused by EMF." [2]

## The Kill Zones, USA

With Each New Antenna Installation, Another Neighborhood Bites the Dust



The above image, with the house seemingly out of kilter, illustrates the Wi-American Dream. The garish fake palm tree is a cell tower loaded with powerful radio antennas. A number of Wi-providers have co-located their antennas on the pole, which guarantees high-frequency electromagnetic toxicity in this residential area. Some of the antennas *send* pulsed, modulated microwave signals and others *receive* signals in order to accommodate voice and data requirements of mobile wireless devices operated by the public at large. Cell towers are infamous for depreciating the value of residential properties up to 20 percent or more. The depreciation of human health is even more pernicious.

The microwave frequencies flowing from most US commercial cell towers are generally between 700 megahertz (700 million hertz) to 5 gigahertz (5 billion hertz). All frequencies in this range are designated by the International Agency

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BY: JA

for Research on Cancer (IARC) as Group 2B carcinogenic. [3] We know from the latest science that the electromagnetic voltage generated by these modulated signals is especially damaging to human genetic material, including the DNA. The cell tower "scream" heard with an audio RF/microwave detector at the above site is overwhelming. There is no more impressive horror than the savage sound of wave carcinogen raging through the sacred space of a neighborhood.

*The aggregate of radiation from so many antennas polluting the air close to inhabited buildings is never monitored by any local, state or federal authority for protection of the public health.* Radiation levels are generally calculated from computer models produced by the Wi-industry, not from actual site measurements. [4] Each antenna on the pole emits its own pattern of microwave signals propagated on its own set of wavelengths. The many diverse signal pulse patterns and modulations of a cell tower can change on an hourly or daily basis. Tower victims are privy to virtually no information on what DNA-busting frequencies and power densities are invading their buildings and bodies 24/7.

**People using wireless devices serviced by cellular antenna installations should know that every voice and data transaction they generate contributes to impairment, sickness and suffering of people and animals within range of antenna pollution.**

Radiation expert Jerry Flynn, a retired Canadian Armed Forces captain with 22 years of military experience in electronic warfare, confirms that ultra-high cell tower frequencies are exceptionally dangerous for humans "because they penetrate more deeply all organ systems of the body and therefore put all human organs at risk." [5]

Physicist Leo Cashman explains that these man made waves are especially deadly because: "...The pulsing adds to the frequencies that are actually in the wave, making it hold lots of other frequencies and increasing the biological impact of the wave, the radiation. And then the modulation, putting the information onto the pulsed carrier wave, whether by amplitude modulation or by frequency modulation, adds more actual frequencies onto the wave and very often those modulating frequencies are very biologically active in their impacts, mostly detrimental, on the human or animal's body....The results are not good and spewing this kind of pulsed, modulated radiation into our human environment all the time is recklessly dangerous." [6]

Nevertheless, cell towers have been flung up willy-nilly across the nation since the mid-1980s, as successive generations are conditioned to believe that every trivial function of social and commercial life must be conducted via pulsed microwave radiation. Most all American neighborhoods are impacted now, because in the USA, wireless connectivity and the "need for download speed" trump human health and human life. Antennas for mobile phone services, Wi-Fi, WiMAX and proprietary security systems hang low over residential districts, schools, hospitals, nursing homes and playgrounds everywhere. The wave fronts of this radiation are scattered as they bounce off of buildings, trees, hills, canyons and split into many electromagnetic paths to destination. Slamming the human habitat from every angle, these pulsing waves intersect and mingle to create Franken-frequencies, which are absolutely impossible to recreate in a laboratory for proper study of their composite bio-effects. Microwave detectors confirm that flimsy construction materials *offer no protection* against the complex wave forms blasting perpetually into buildings and into all living flesh.



In urban and suburban areas, many commercial antenna systems are sited one on top of another because 4G LTE smart phones and tablets, transceiving for hours each day in the hands of even the youngest of Americans, are exponentially increasing the demand for wireless data capacity. Increasingly common is the sight of two or more towers clustered together in residential areas, with reports of up to *six in a cluster* in the metropolitan area of Phoenix-Scottsdale-Mesa, Arizona. Within each square urban mile, there can be hundreds or even thousands of macro panel (sector) antennas, whip and small-cell antennas, WAN and LAN Wi-Fi antennas, plus smart meter network antennas spewing multiple microwave channel frequencies delivered in a variety of pulsed signal modulations and power densities.

By 2012, the US wireless industry was valued at \$195.5 billion: "which is larger than publishing, agriculture, hotels and lodging, air transportation, motion pictures and recording, and motor vehicle manufacturing industry segments. It

rivals the computer design services and oil and gas extraction industries." [7] Wi-antenna installations are veritable gold mines for the industry. Over the years, each installation churns out multi-millions of dollars in Easy Money for a thick network of radiation peddlers. Therefore, the industry is pleased to erect thousands more of these weapons annually. The momentum is breathtaking. AntennaSearch.Com offers a comparison count of RF/microwave installations across the USA delivering relentless wave carcinogen to 321 million Americans. These numbers do not include millions of Wi-Fi antennas, nor the huge number of military and other radar installations. [8]

**Microwave Antenna Towers: July 2014: 547, 549 June 2015: 575, 256 January 2016: 594, 309**

**Antennas: July 2014: 1,706,048 June 2015: 1,763,574 antennas January 2016: 1,805,623**

In 2015, AntennaSearch.Com reported that there are 1,248 wireless antennas emitting radio signals within one square mile of Civic Hall in New York City, and 2,510 antennas (178 cell towers) within one square mile of Times Square, Manhattan. According to the New Networks Institute: "This is only a fraction of the antennas and cell sites in this area of New York...And no one --not Verizon, or the NYPSC, or the FCC has any complete public data or documentation about the number of lines or even wireless cell sites." [9] Factor in the innumerable, unregulated Wi-Fi hotspots and private radio antenna systems in the same areas, and we are taking some "mean heat." There is no federal, state or local authority in the US which is monitoring and calculating the *aggregate radiation* from multiple antennas in micro-environments. Therefore, there is virtually no pertinent health or exposure information available to the millions of people living, working and passing through these super-hot zones.

As documented at this site (The Cancers of High Tech), researchers found that the 900 MHz propagated by GSM mobile antennas causes leukemia cells to divide aggressively after a 48-hour exposure in the laboratory. What does this mean for cancer victims, caught in a mile-square zone with thousands of antennas propagating numerous and coupling microwave frequencies across the spectrum, including 900 MHz? And when will the 2510+ antennas around Times Square morph into 5000+ antennas? No one is asking!

Any urban square mile infiltrated with this kind of wave carcinogen, delivered in hundreds of different modulated frequency channels, is arguably a DEATH CAMP. It's a morbid environment where people incrementally weaken and gradually succumb, not only to the cancer-promoting radiation itself, but also to diseases and bio-toxins which naturally prosper in such areas. Swiss researchers found that toxic molds greatly flourish when stimulated by microwaves and other forms of electromagnetic radiation. Exposing mold to these energies, they "discovered that not only the biotoxins in the culture had increased more than 600 fold, but also had increased to a more potent and virulent form of biotoxin." [10]

Lyme Disease (LD), a devastating neurological affliction spreading rapidly from person to person, is another example of the indirect fallout from wireless assault. Dr. Dietrich Klinghardt M.D., who specializes in the treatment of LD, is "convinced that the increased virulence we're now seeing is related to the dramatic increase in electromagnetic fields and microwave radiation from cell phones, cell towers, and all manner of wireless technologies. Therefore, EMF and microwave radiation mitigation are part of the standard protocol, as any subsequent treatment of Lyme disease will not be as effective unless these external factors are addressed." [11] LD is epidemic in many parts of the US. According to the Centers for Disease Control (CDC), 300,000 Americans are diagnosed with Lyme Disease each year, about ten times the number of cases officially reported. CDC reports that in 2014, in the state of Pennsylvania alone, there were 6470 confirmed new cases and 1017 probable cases. [12] Is ever-increasing microwave antenna radiation one of the reasons why so many LD victims suffer chronic and debilitating illness despite antibiotic treatment?

The ferocity of commercial wireless radiation unleashed nationwide amounts to a sustained, high-frequency *electromagnetic attack* upon the entire US population. Curtis Bennett, president of Thermografix Consulting Corporation in Canada, says that in a military application, the deliberate targeting of populations with such biologically potent microwave radiation would be an act of war. [13] Bennett uses infrared imaging to illustrate what he calls the "horrifying physiological effects" of microwave interaction with human bodies. Non-thermal microwave radiation is shown on a thermograph as capable of generating "hot spots" all over the body. Consistent reports of cell tower sickness from many nations across the world confirm that wireless radiation, flowing to and from Wi-antennas, is an advancement in slow-delivery lethality. In the Microwave Age, silent but poisonous frequencies have replaced bullets and bombs.



Wi-antenna pollution is comprised of the following complex electromagnetic components, each of which exert measurable and potent biological effects on people, animals and plants:

- polarization of the waves (vertical or horizontal propagation)
- power densities of propagated waves
- current drawn from the core power supply
- pulsed fields with duty cycles
- numerous variations of pulse width, pulse shape, pulse amplitude
- static magnetic fields
- electromagnetic stray fields
- duty factors
- burst mechanisms for time division multiple access
- hundreds of different frequency channels

Radiation experts with the Russian National Committee on Non-Ionizing Radiation Protection (RussCNIRP) confirm how little we know about the wave toxicity from Wi-antenna systems: "So far, most of the real MW [microwave] signals that are in use in mobile communication have not been tested for adverse effects. Very little research has been done with real signals and for durations and intermittences of exposure that are relevant to chronic exposures from mobile communication. In some studies, so-called 'mobile communication-like' signals were investigated that in fact were different from the real exposure in such important parameters as carrier frequency, modulation, polarization, duration and intermittence. To what degree such studies are relevant to evaluation of health risks from MW of mobile communication is not known. For example, GSM users are exposed to MW at different carrier frequencies during their talks...The base station can change the frequency [through a selection of many different channels] during the same call. This means that no one knows to what extent any particular antenna installation is damaging to those who live in its range of effect." [14]

### No Worries for the Wi-Radiation Industry

Protected by federal mandate, Wi-profiteers are free to obtain their lavish booty by mega-microwaving the entire nation with **ZERO REGULATORY OVERSIGHT**. In late 2014, the Washington Post reported that one in ten antenna installations is in violation of rules set forth by the Federal Communications Commission (FCC). [15] The FCC exercises sole authority over US antenna installations, but the agency admits that it has neither the means to monitor antenna effluent nor the manpower to enforce radiation exposure guidelines, inadequate as these guidelines are. [16] The EMR Network explains: "The FCC requires very little RFR monitoring from its licensees and it does very little of its own....For many of the new personal wireless services, the FCC does not monitor any communications installations for RF compliance. They issue licenses for whole regions and do not have a complete inventory list of actual installations and no idea where many are located." [17] An engineer who found one in ten cell sites out of compliance told the *Washington Post*: "It's like having a speed limit and no police." [18] In other words, USA is a radiation rodeo, and a lawless one at that. Meantime, the average American apparently believes that regulators must be protecting the public and that tower antennas are hunky-dory safe.

FCC publications, including the OET Bulletin 56, minimize antenna health risks with vague assurances and assumptions, but provide **ZERO** up-to-date medical or scientific documentation proving that these installations are in any way safe for the public health during long-term and continual exposure. The FCC rakes in \$billions selling spectrum to the same commercial Wi-interests which it also "regulates." This sordid conflict of interest explains why public health issues take a far back seat to economic issues.

**Dr. Devra Davis**, President of EHT, oncology epidemiologist, former health advisor to US Dept of Health and Human Services, and Nobel Prize winner, **warns against carrying smart phones in bra or pocket, which increases risk of cancer and other debilitating conditions** <http://www.starpulse.com/news/index.php/2016/01/11/cancer-warning-scientist-warns-against#IH8PihUdZXvuHwC9.03>

(there's also a Video link at bottom of article of brain tumor cases, including a man who won a lawsuit in Italy after developing a brain tumor after 12 years of cell phone use 6 hrs/day)

#### **Cyprus Government VIDEO Urges Parents to take Precautions against Cell Phones and Wi-Fi**

If you haven't yet, please watch this beautifully made, short public service video produced by the government of Cyprus' National Committee on Environment and Children's Health to educate parents on what precautions to take <https://www.youtube.com/watch?v=H43IKNjT...> . Precautions include using wired ethernet whenever possible, no wireless electronics for children under 14, turning off Wi-Fi when not in use, no cell phones in bedroom, and not using cell phones with children in the car. Most of the people in this country have never heard of taking precautions with their wireless devices - everyday I see people and children holding cell phones to their heads and carrying them on their body. Other governments are warning their citizens. But in the USA the telecom industry spends millions each year on lobbying. Here it is up to citizens, parents, scientists and doctors to warn people to take precautions.

#### **Aug 2015: Washington Post reports Dementia hitting a decade earlier and more deadly**

A new 21-countries study finds that people across the world are developing dementia a decade earlier than 20 years ago. the disease is now being regularly diagnosed in people in their late 40s and that death rates are soaring. The study found that deaths caused by neurological disease had risen significantly in adults aged 55 to 74, virtually doubling in the over-75s The problem was particularly acute in the United States, where neurological deaths in men aged over 75 have nearly tripled and in women risen more than fivefold. "The rate of increase in such a short time suggested a silent or even a hidden epidemic, in which environmental factors must play a major part, not just aging."

[https://www.washingtonpost.com/world/people-are-developing-dementia-earlier-and-dying-of-it-more-a-study-shows/2015/08/06/599b16b8-3c0a-11e5-8e98-115a3cf7d7ae\\_story.html?wprss=rss\\_world](https://www.washingtonpost.com/world/people-are-developing-dementia-earlier-and-dying-of-it-more-a-study-shows/2015/08/06/599b16b8-3c0a-11e5-8e98-115a3cf7d7ae_story.html?wprss=rss_world) Dr. Gerd Oberhard, Public Health Dept. of Salzburg, Austria, specifically warned about the effects of RF radiation including neurodegenerative diseases years ago, here <https://www.youtube.com/watch?v=tChkIBpj...>

**Don't forget that cancer is now the #1 cause of death by disease in children, and that 1 in 2 people will now get cancer.** In overall population, death by tuberculosis, influenza and pneumonia, and cardiovascular disease has been decreasing, but death by cancer has increased three-fold in the last 100 years. This dramatic increase over a lifetime suggests that environmental factors (food,

water, air, electromagnetic radiation) are at play

<http://abcnews.go.com/Health/conquering-childhood-cancer/story?id=20348929>  
and that there has been a significant increase in cancers of the brain and central nervous system (CNS) in American children (0-14 years of age) between 2000-2010, with an annual percentage increase of +0.6% per year. In adolescents (15-19 years old), that annual percentage increase is 1.0% per year. Children who used cellphones for 2.8 or more years were twice as likely to have a brain tumor than those who never regularly used cellphones (OR = 2.15, 95% CI = 1.07 to 4.29). <http://www.saferemr.com/2015/05/brain-tumor-rates-are-rising-in-us-role.html>

### **Some countries recognize EHS (electrohypersensitivity)**

**Some countries recognize EHS (electrohypersensitivity) as a functional impairment - i.e. that EMF radiation (which includes RF radiation) causes symptoms in some people such as headaches, insomnia, other neurological problems, hyperactivity and behavioral problems, cardiovascular problems, and immune system problems including severe allergies and skin rashes/problems.**

July 2015: France confirms EHS is a functional

impairment <http://emfrefugee.blogspot.com/2015/11/france-confirms-ehs-functional.html>

(Jan 2015: France also ordered Wi-Fi shut off in preschools for kids 3 and under, and ordered Wi-Fi shut off in elementary schools when not in use <http://ehtrust.org/france-new-national-law-bans-wifi-nursery-school/>)

March 2012: Austrian Medical Association adopts a Guideline for the diagnosis and treatment of EMF related health problems and illnesses including

EHS <http://nebula.wsimg.com/6a2930004201873487f1dc83086d5004?AccessKeyId=045114F8E0676B9465FB&disposition=0&alloworigin=1>

Sweden recognised EHS as a functional disability in 2002 <http://www.ncbi.nlm.nih.gov/pubmed/17178584>

The Canadian Human Rights Commission did likewise in 2007.

In 2009, the European Parliament voted for persons with EHS to be recognised as disabled. Despite having official recognition, many doctors still know little or nothing about the condition.

<http://www.saferemr.com/2015/03/electromagnetic-hypersensitivity-ehs.html>

**To read more about EHS**, here's a document written by UK physician Dr. Erica Mallery-Blythe on the condition, which mentions some countries report 4-10% of the population is affected by EHS

<http://nebula.wsimg.com/e8e335a03f53f70276cdee2750eb2aee?AccessKeyId=045114F8E0676B9465FB&disposition=0&alloworigin=1>

### **More Cell Towers Coming - Landlines for Internet, Phone being replaced by Wireless**

*- As wide-area networks (namely 3G, 4G) get faster and better at reaching inside buildings, users might be able to cancel their DSL or cable service and rely wholly on one multipurpose wireless connection. We're not quite there yet, but consumers can at least use a mobile hotspot to supply Internet access to multiple mobile devices, including laptops, tablets, and e-readers. A mobile*

*hotspot connects to the Internet via a cellular network, and then creates a Wi-Fi hotspot that can connect any Wi-Fi-enabled device within about 30 feet (because it is using a cellular network, it is connecting to a cell tower*

- eliminate landline broadband internet is implied as goal - this will require several times more cell towers than current)

[http://www.pcworld.com/article/208154/mobile\\_hotspot\\_wars.html](http://www.pcworld.com/article/208154/mobile_hotspot_wars.html)

- Phone companies eliminating landlines and replacing with wireless because it is more expensive for phone companies to maintain land lines and less regulation with wireless. AT&T started doing this in June 2014 in Alabama and it's happening more now at other cities (so people would need electricity in order to make a call - what about emergencies when electricity is

out? ) <http://www.wsj.com/articles/SB10001424052702304834704579403090132882148>

## **Jonathan Atkinson**

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**From:** Jessica Kleiderman <jessicakleiderman@gmail.com>  
**Sent:** Tuesday, May 03, 2016 3:34 PM  
**To:** Jonathan Atkinson  
**Subject:** We oppose the KOWS antenna!

**Jessica Kleiderman & David Seoane 8167 Whited Road Sebastopol CA 95472**

May 3, 2016

Sebastopol City Council  
P.O. Box 1776  
Sebastopol, CA 95473

Dear Sebastopol City Council members:

I am opposed to the 70 foot KOWS radio antenna tower that is proposed at 1281 Pleasant Hill Road, in the scenic west Sebastopol hills. The beautiful rural areas surrounding Sebastopol should be preserved and not be blighted with industrial towers. Please look to the Sebastopol General Plan for guidance:

1. The views of open space and rolling hills surrounding Sebastopol contributes to our sense of identity and well-being.
2. Preserve and enhance scenic views of the hills west of Sebastopol.
3. Minimize community exposure to electromagnetic fields. Prudent avoidance is dictated.

The “greater good” is best served by preserving the beautiful areas surrounding Sebastopol, not by building more antenna towers.

Sincerely,

Jessica Kleiderman & Dave Seoane

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# Response To SHARP Claim That KOWS Antenna Structure Can Be Seen From Highway 116

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## About the photos

Google Earth was used to simulate what might be seen from highway 116 by creating a line from the antenna structure site to various spots on the road. Only spots that did not have vegetation next to the road were used. Then, a vertical line was created exactly indicating the line of sight. Using Google street view, shots were created along the line of sight towards the proposed structure site.

These lines are represented in the area map with different colors to help identify them in the corresponding street views and elevation profiles.

Each shot includes a colored line indicating the exact direction to the antenna site and is accompanied by an elevation profile clearly showing the terrain between the site of the shot and the site of the antenna.

No shots were included north of Litchfield Road because the rise in the terrain around Swain Woods Terrace clearly blocks the view in the direction of the antenna. Likewise, no shots were attempted south of the La Bodega restaurant, Flea Market area because Hwy 116 is rapidly retreating from the antenna site, and, at over 2 miles away, far out of range of sight of the antenna.

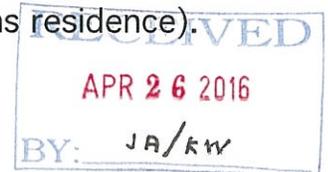
## Conclusions

All shots show considerable vegetation between Hwy 116 and the antenna site. Even the best locations with the clearest views, free of roadside vegetation, contain trees that average at least 50 along the line of sight that completely obstruct the view.

No locations could be identified anywhere on highway 116 that even remotely has a view of the proposed antenna structure. This is due to several contributing factors:

- Trees along the line of site, both near and far, screen the ridge from the highway. The density of trees is sufficient to block the view completely
- The terrain rises and then dips back down towards the antenna. This rise causes the view to be completely obscured
- In some cases, such as everywhere north of Fircrest Market, there are near distance rises that make it impossible to see the antenna site

The definitive test of visibility of the antenna site from hwy 116 is the ability to see the residence at the crest of the rise near the antenna site, (Jenkins residence).



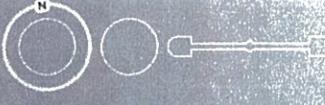
This site is 30 feet higher in elevation than the antenna site. The two-story house adds another 25 feet, or so, bringing the elevation relative to the antenna structure to 55 feet. Nowhere along Hwy 116 is this house visible and therefore, it can be reasonably concluded that neither can the antenna structure. Even though the tower would be 15 feet higher in elevation than the house it is further in the distance, over the view-obscuring ridge, making it highly unlikely, if not impossible, to see if the house itself is not visible.

Finally, it is beyond comprehension to believe that an object one foot wide, or slightly wider, could be seen from a distance of one mile without the aid of a high powered telescope, even if it were not screened by vegetation and terrain. And with the open lattice design and camouflage painting it would be even more difficult to see.

Based on the results of this analysis it must be concluded that the proposed tower cannot be seen from any point on Highway 116, and thus, does not violate view corridor ordinances. There would be no validity in denying a use permit based on this false accusation.

# Directory of Views



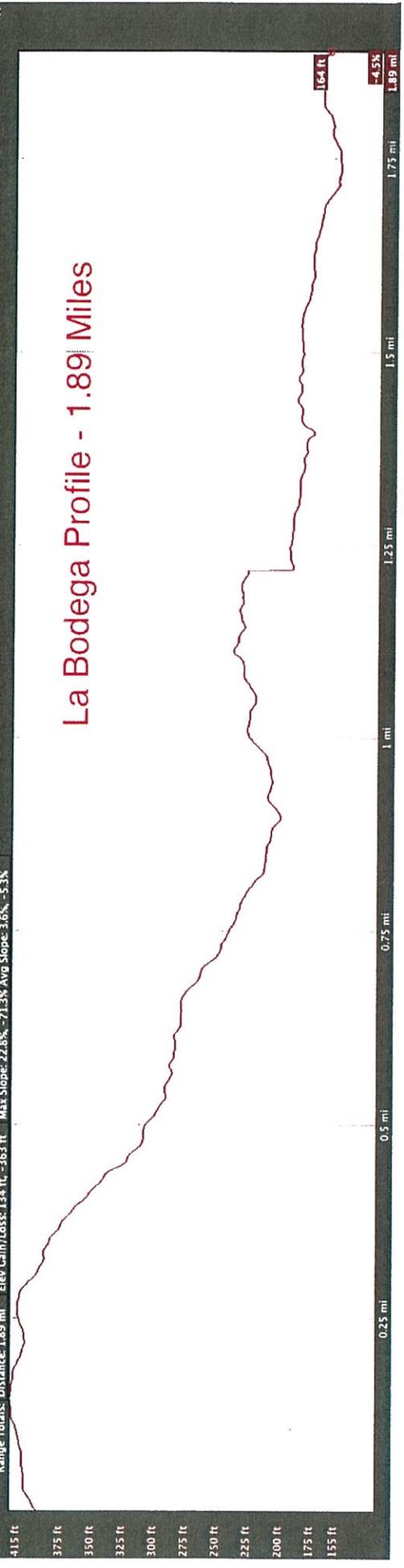
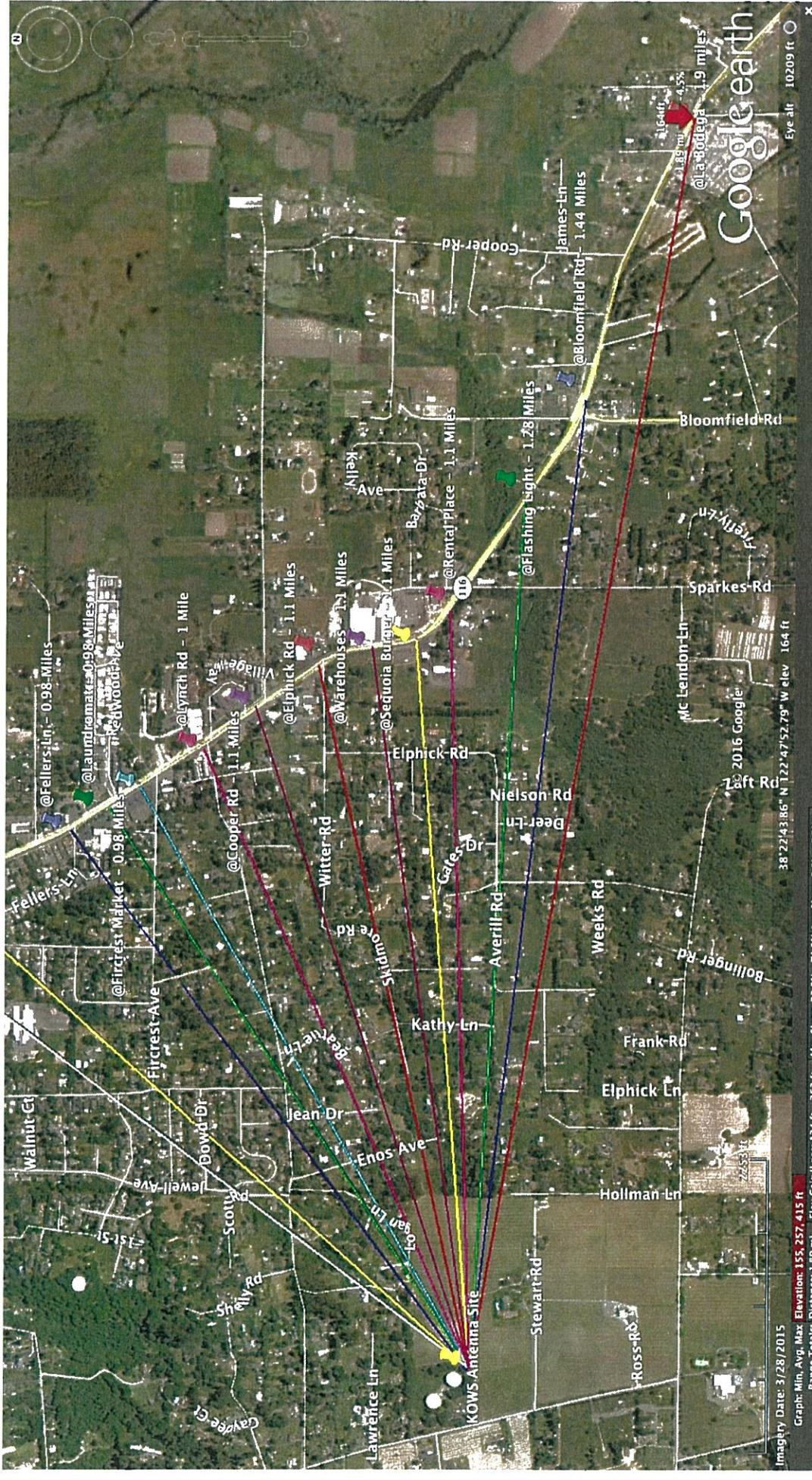


@ La Bodega - 1.89 Miles



Gravenstein Hwy S

@La Bodega - 1.9 miles



Imagery Date: 3/28/2015  
 Graph: Min, Avg, Max Elevation: 155, 257, 415 ft  
 Range Totals: Distance: 1.89 mi Elev Gain/Loss: 134 ft, -363 ft Max Slope: 22.8%, -71.3% Avg Slope: 3.6%, -5.3%

Eye alt: 10209 ft  
 1.64 mi 1.75 mi 1.5 mi 1.25 mi 1 mi 0.75 mi 0.5 mi 0.25 mi  
 164 ft 4.5% 1.89 mi

Bloomfield Rd - 1.44 Miles

@Flashing Light - 1.28 Miles

Gravenstein Blvd - 1.1 Miles  
Gravel Place - 1.1 Miles

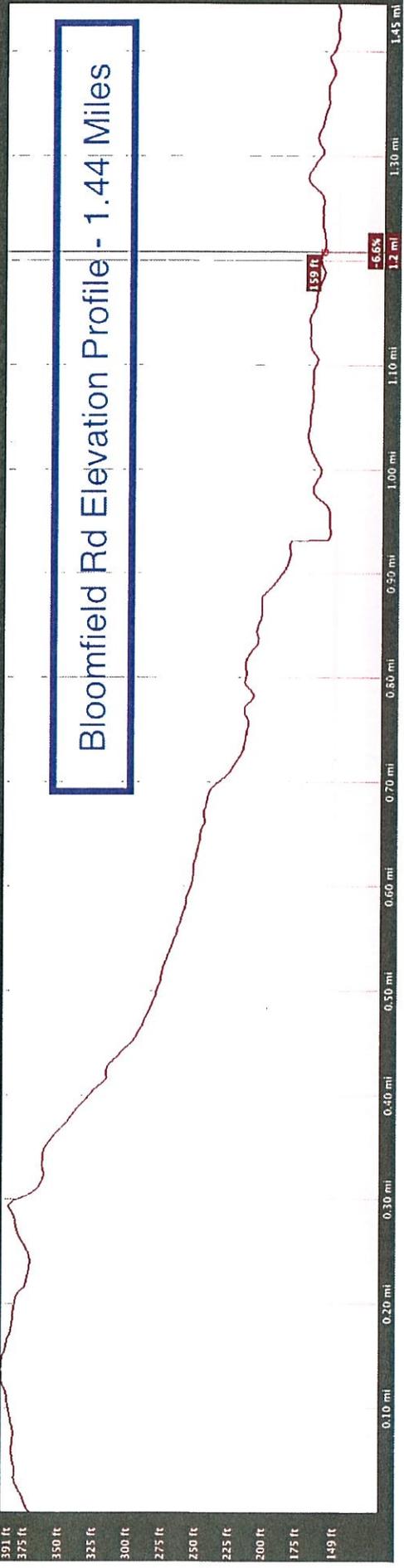
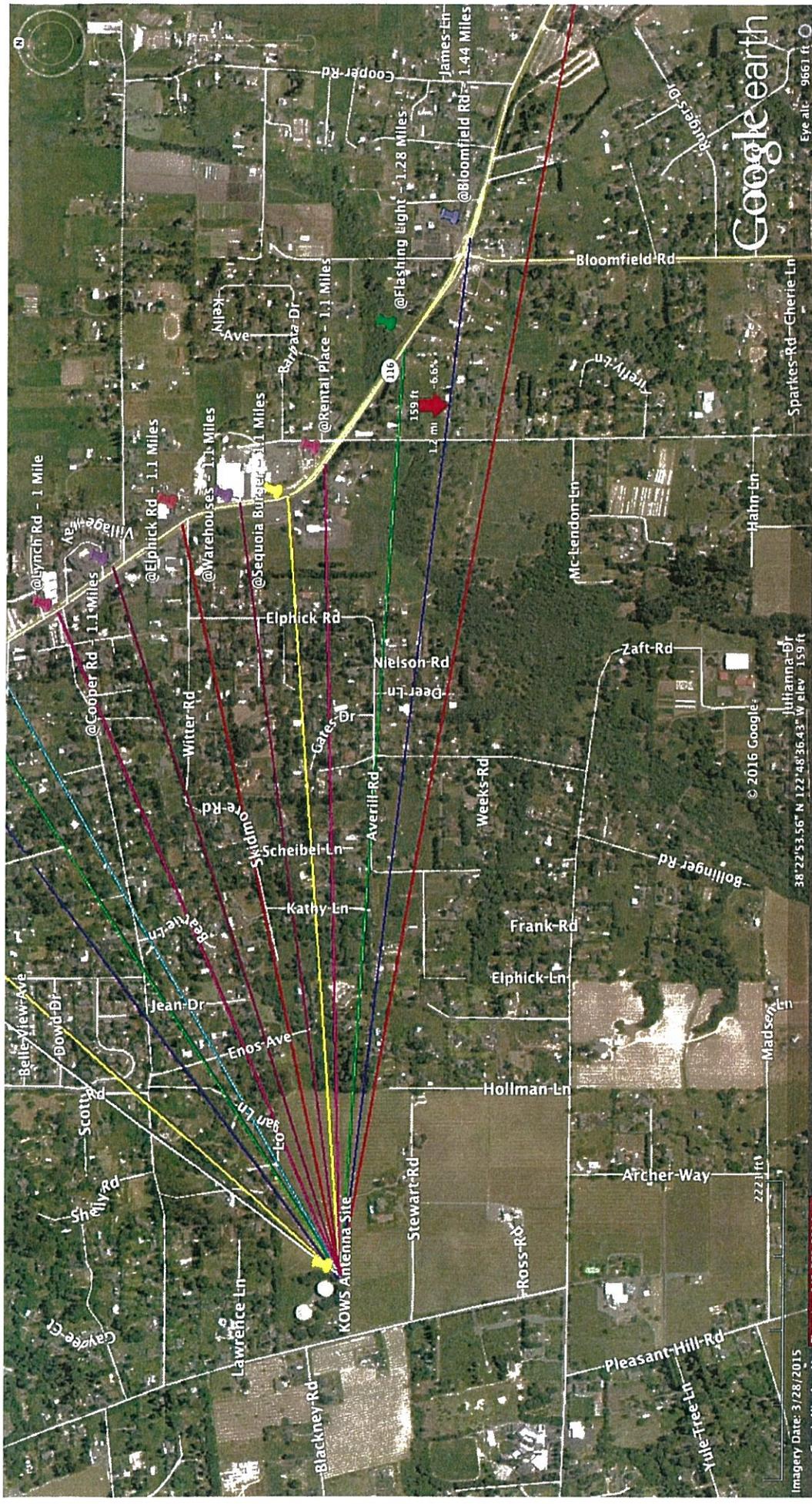
Gravenstein Hwy S

© 2016 Google

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38°22'52.27" N 122°48'20.86" W elev. 97 ft

4 ft





Flashing Light - 1.28 Miles

@Sequoia Burger - 1.1 Miles

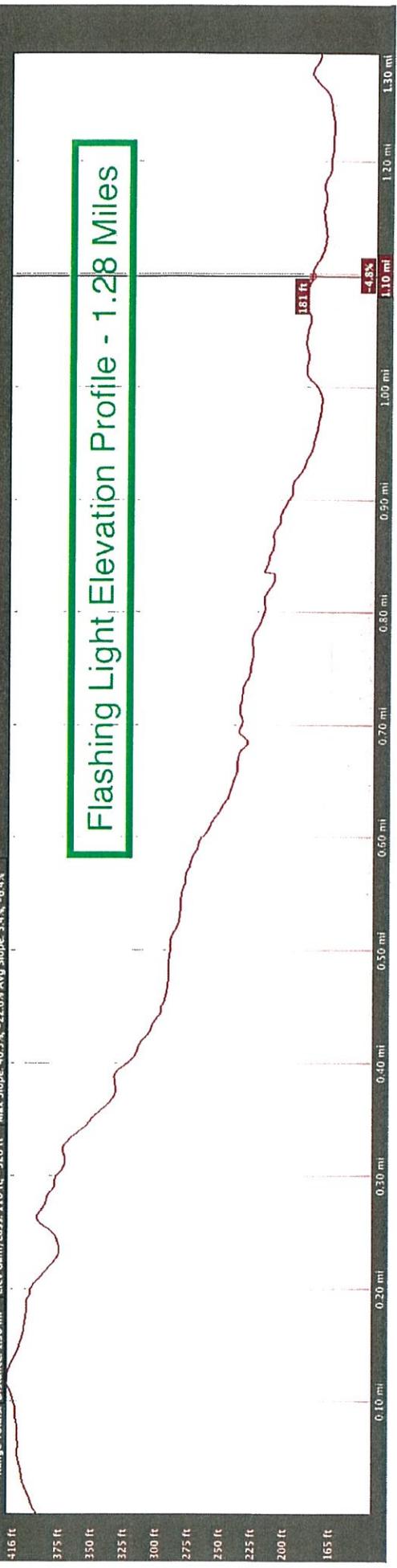
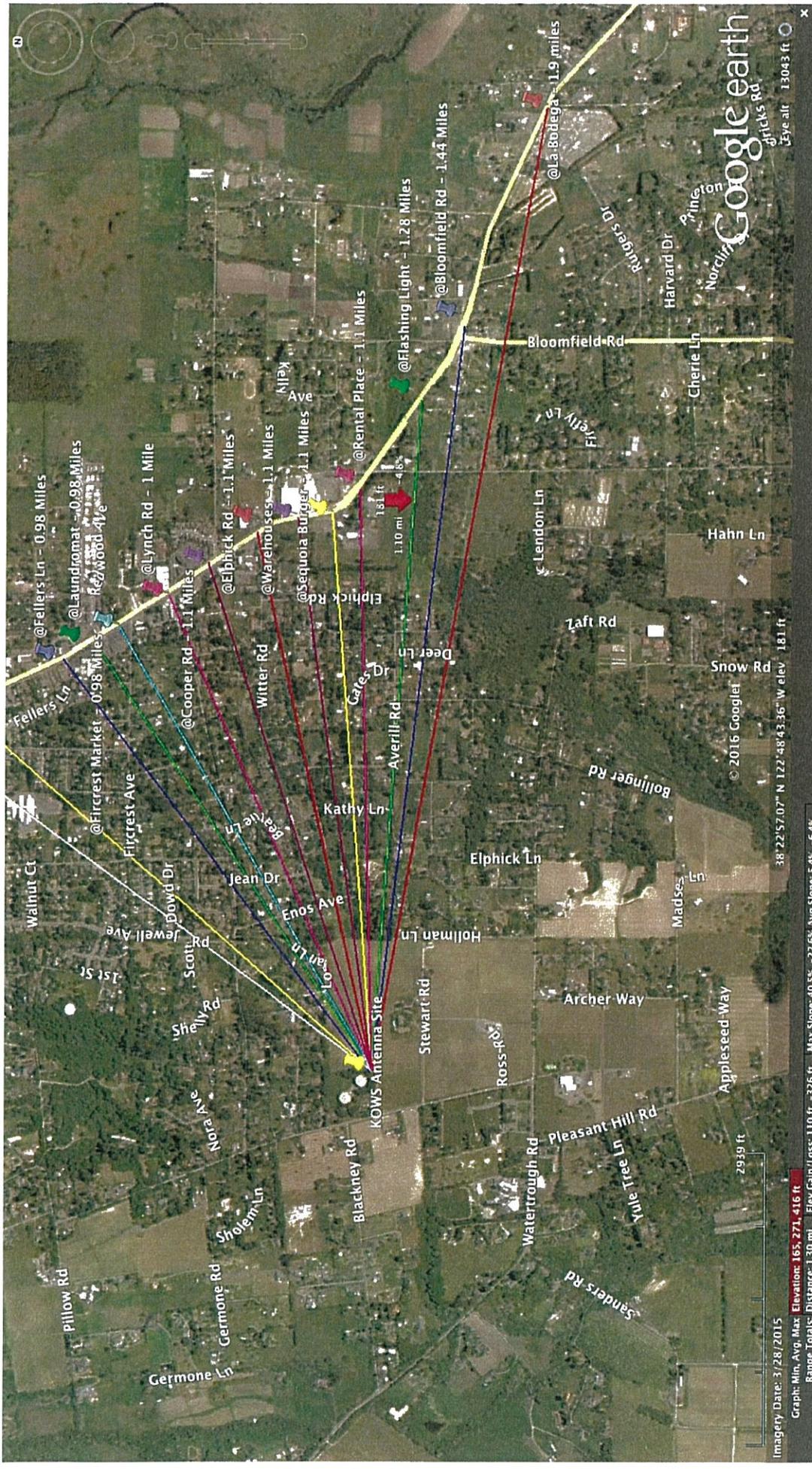
@Retail Place - 1.1 Miles

@Warehouses - 1.1 Miles

@Flashing Light - 1.28 Miles

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Rental Place - 1.1 Miles



Greensboro Hwy 5



Exit Street View



@Rental Place - 1.1 Miles

Gravinsdale Hwy S

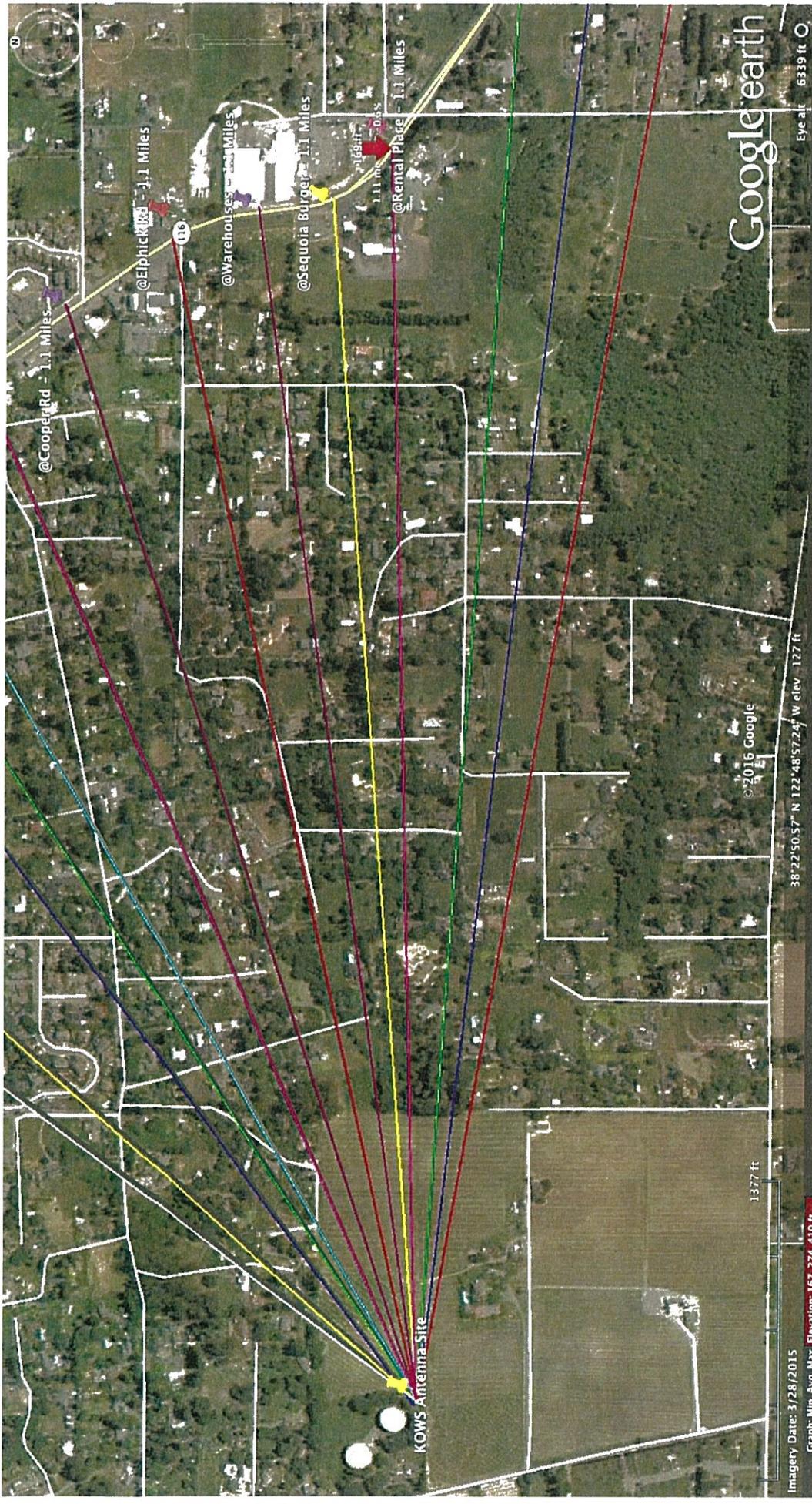
© 2016 Google  
© 2016 Google

Google earth

38°23'04.11" N 122°48'44.20" W elev 139 ft

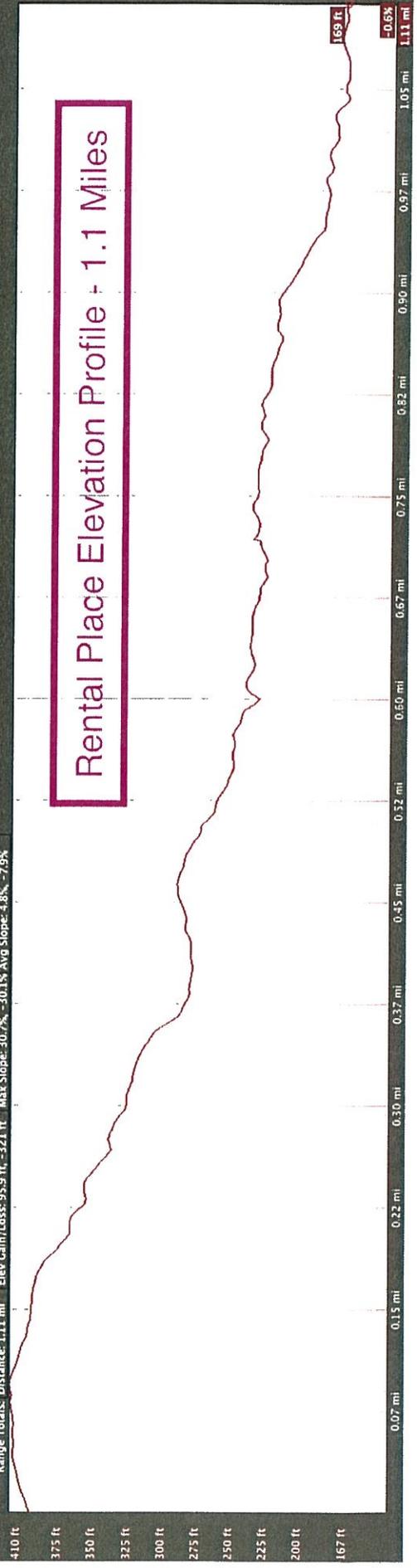
Eye alt 107 ft

Imagery Date: 5/2015



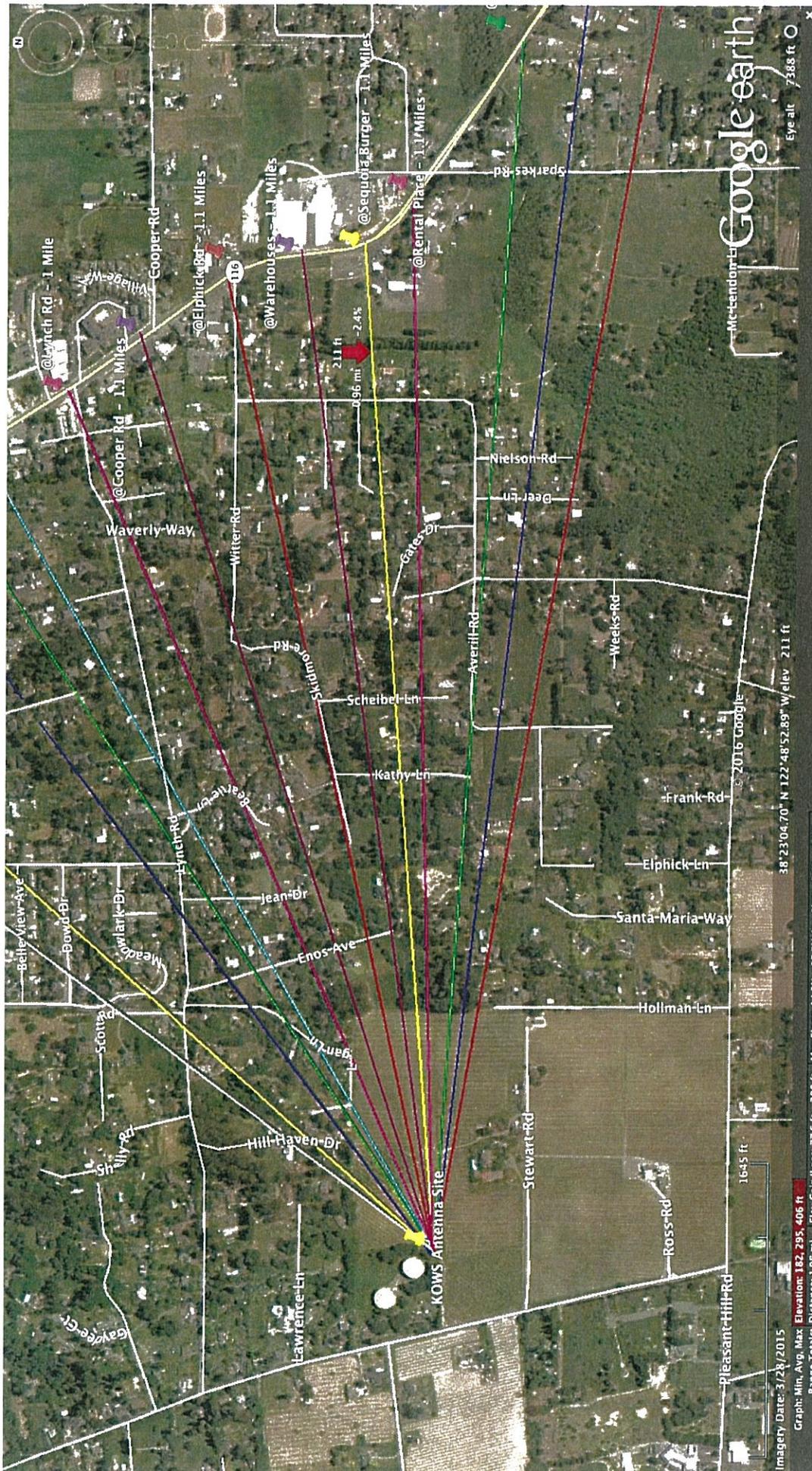
Imagery Date: 3/28/2015  
 Graph: Min, Avg, Max Elevation: 167, 274, 410 ft  
 Range Totals: Distance: 1.11 mi | Elev Gain/Loss: 95.9 ft, -321 ft | Max Slope: 30.7% | Avg Slope: 4.8% | -7.9%  
 38°22'50.57" N 122°48'57.24" W elev: 127 ft  
 Eye alt: 6339 ft

## Rental Place Elevation Profile - 1.1 Miles

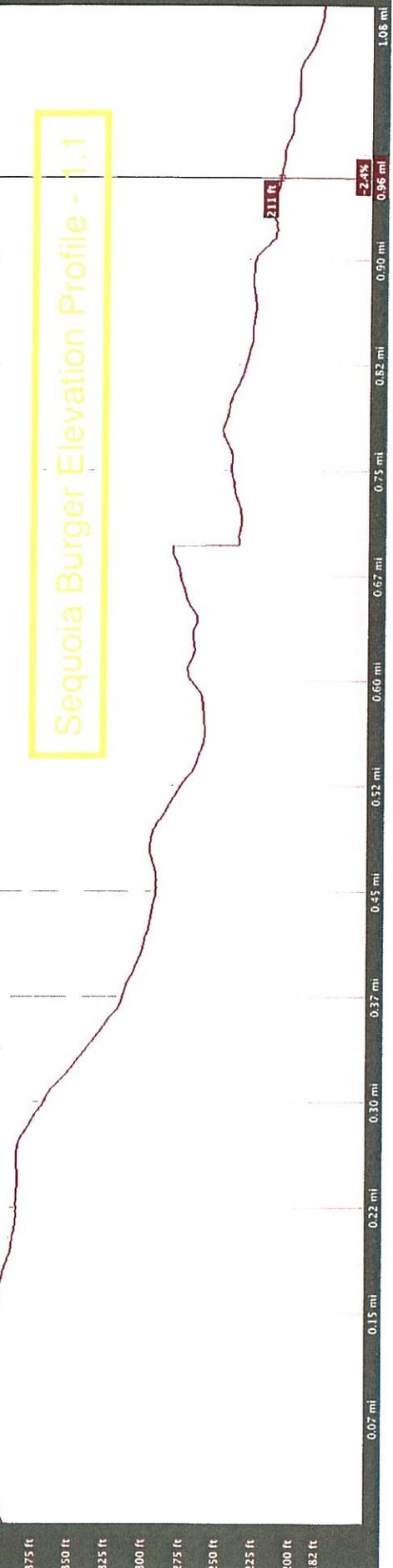


Sequoia Burger - 1.1 Miles





Imagery Date: 3/28/2015  
 Graph: Min. Avg. Max. Elevation: 162, 295, 406 ft  
 Range Totals: Distance: 1.08 mi Elev Gain/Loss: 77.6 ft, -288 ft Max Slope: 14.9% - 85.5% Avg Slope: 3.9% - 6.6%



Sequoia Burger Elevation Profile - 1.1

Warehouses - 1.1 Miles

Gravenstein Fwy 580



Exit Street View



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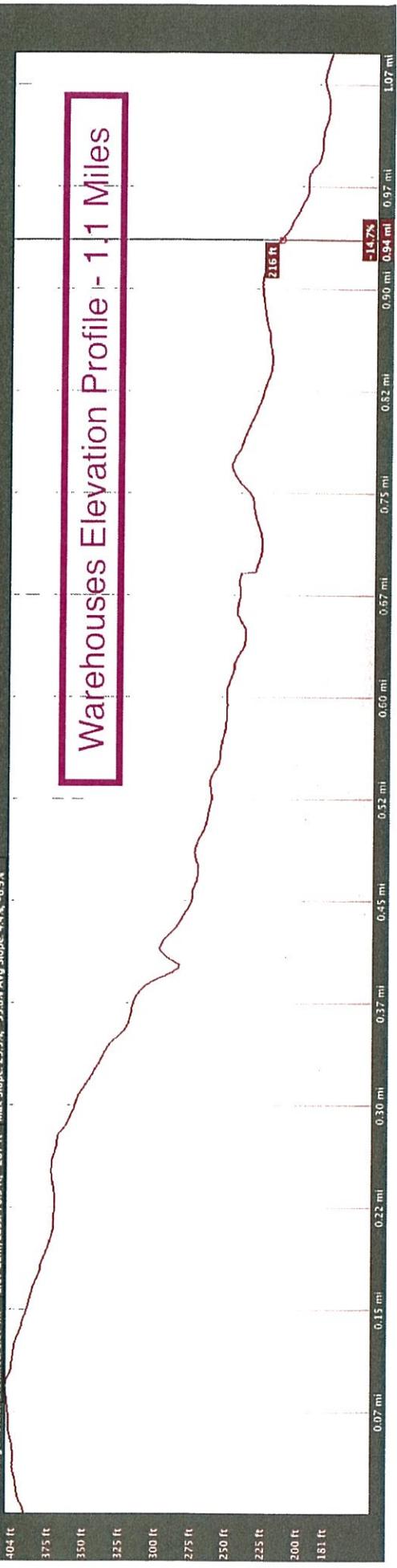
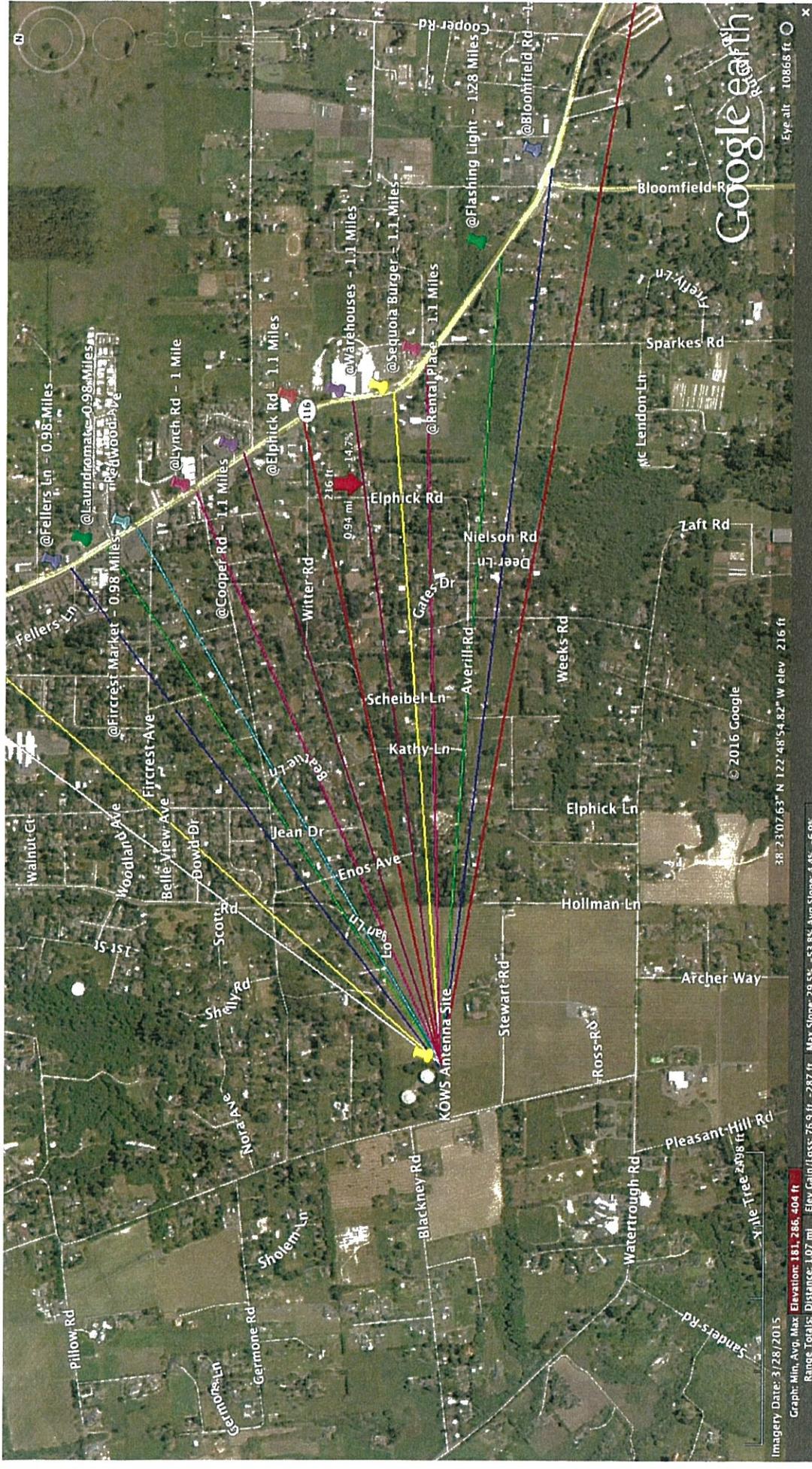
Google earth

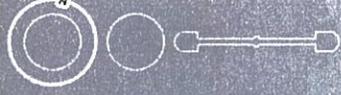
4 ft

Imagery Date: 6/2015

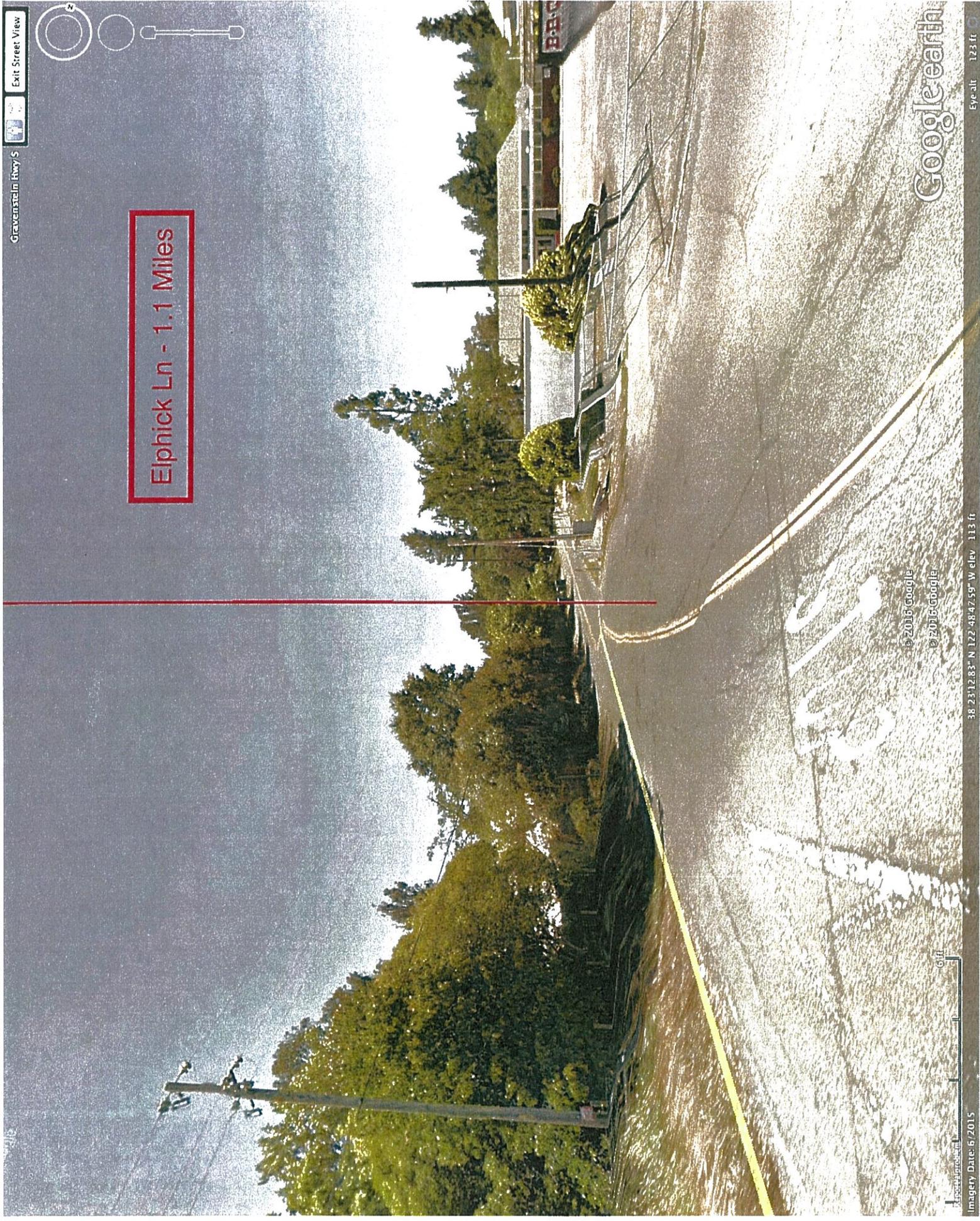
38°23'08.73" N 122°48'45.96" W elev 107 ft

Eye alt 117 ft





Elphick Ln - 1.1 Miles



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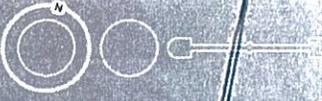
Google Earth

38.231283° N 122.484759° W elev 113 ft

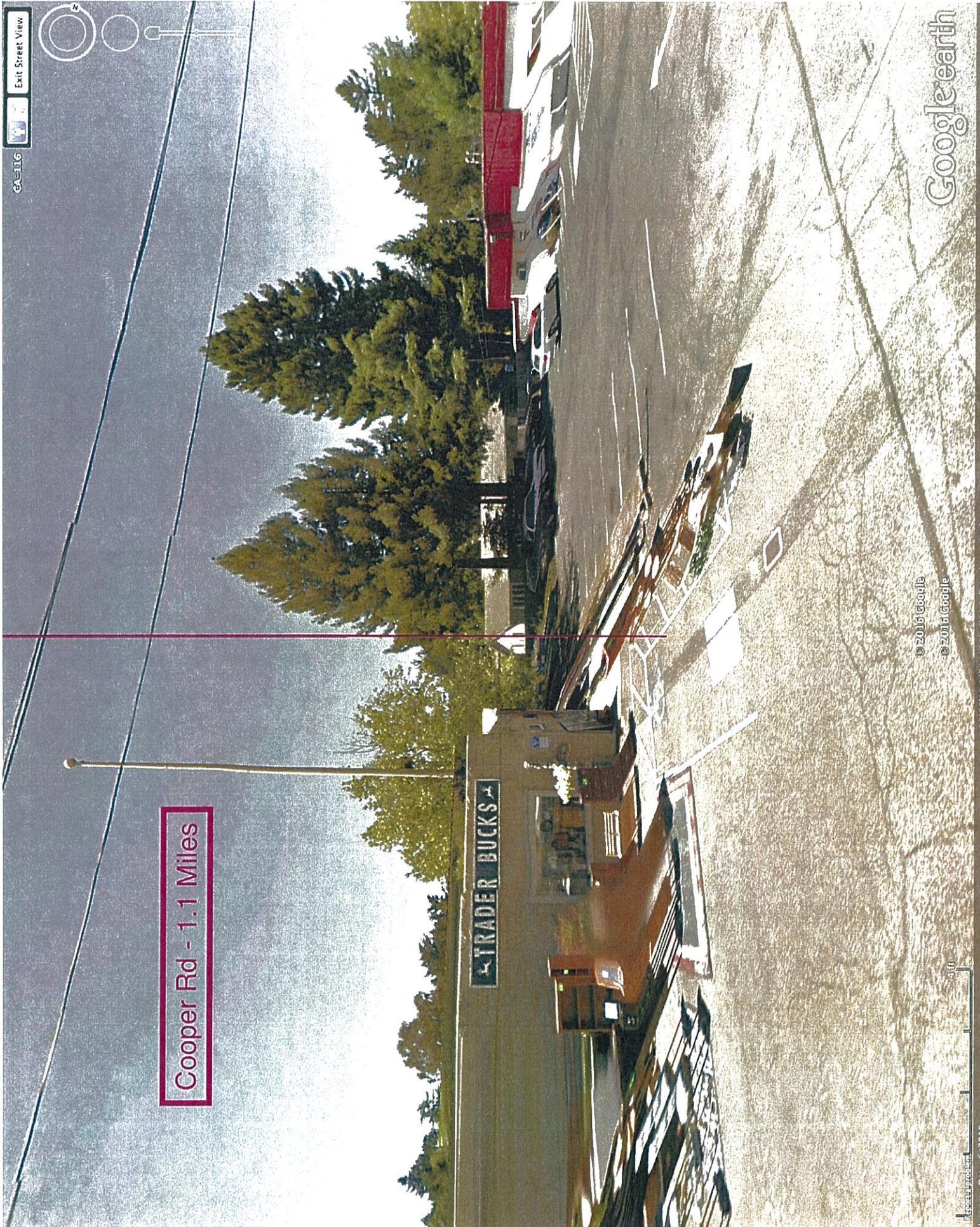
Imagery Date: 6/2015

Eye alt 123 ft



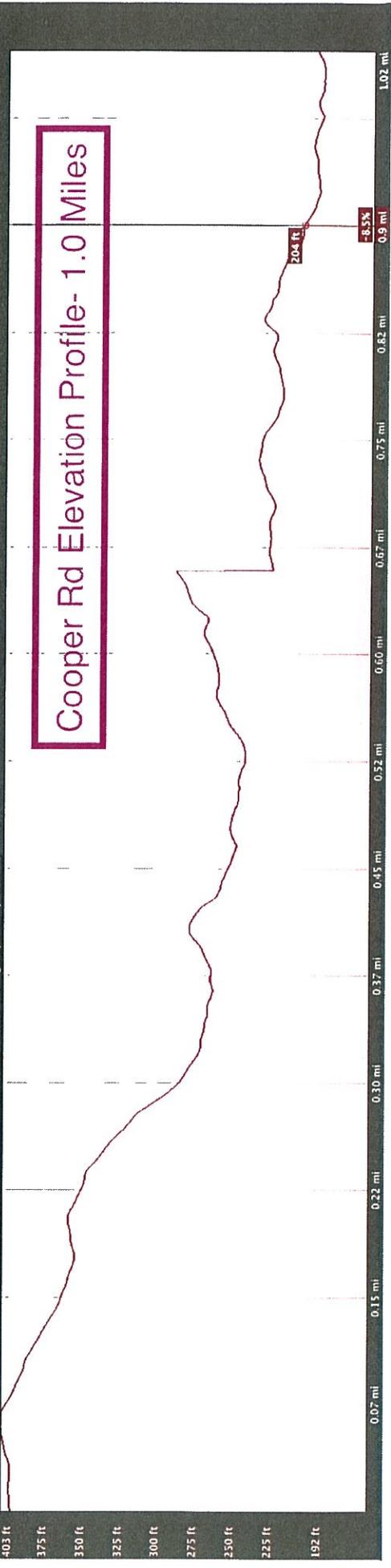
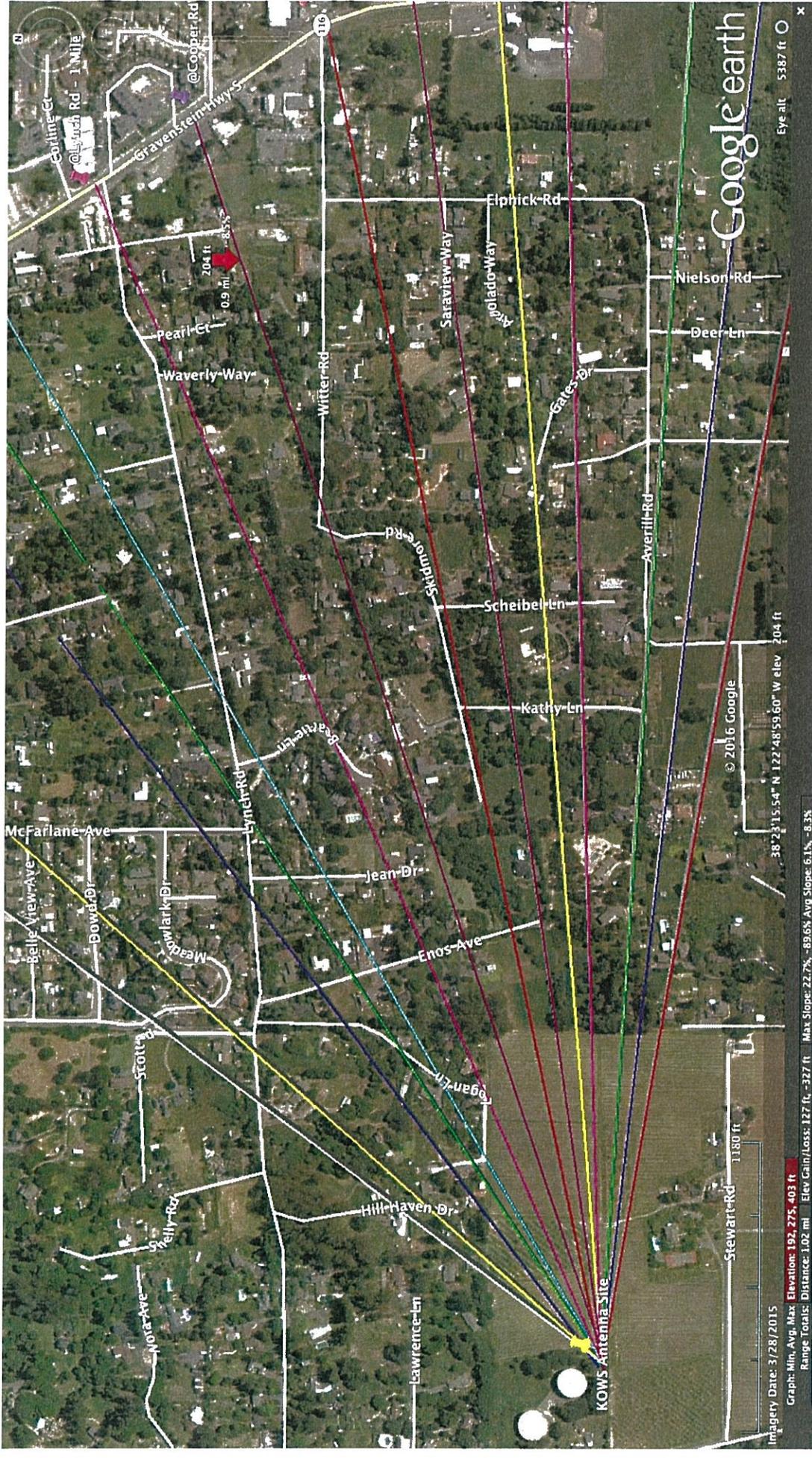


Cooper Rd - 1.1 Miles



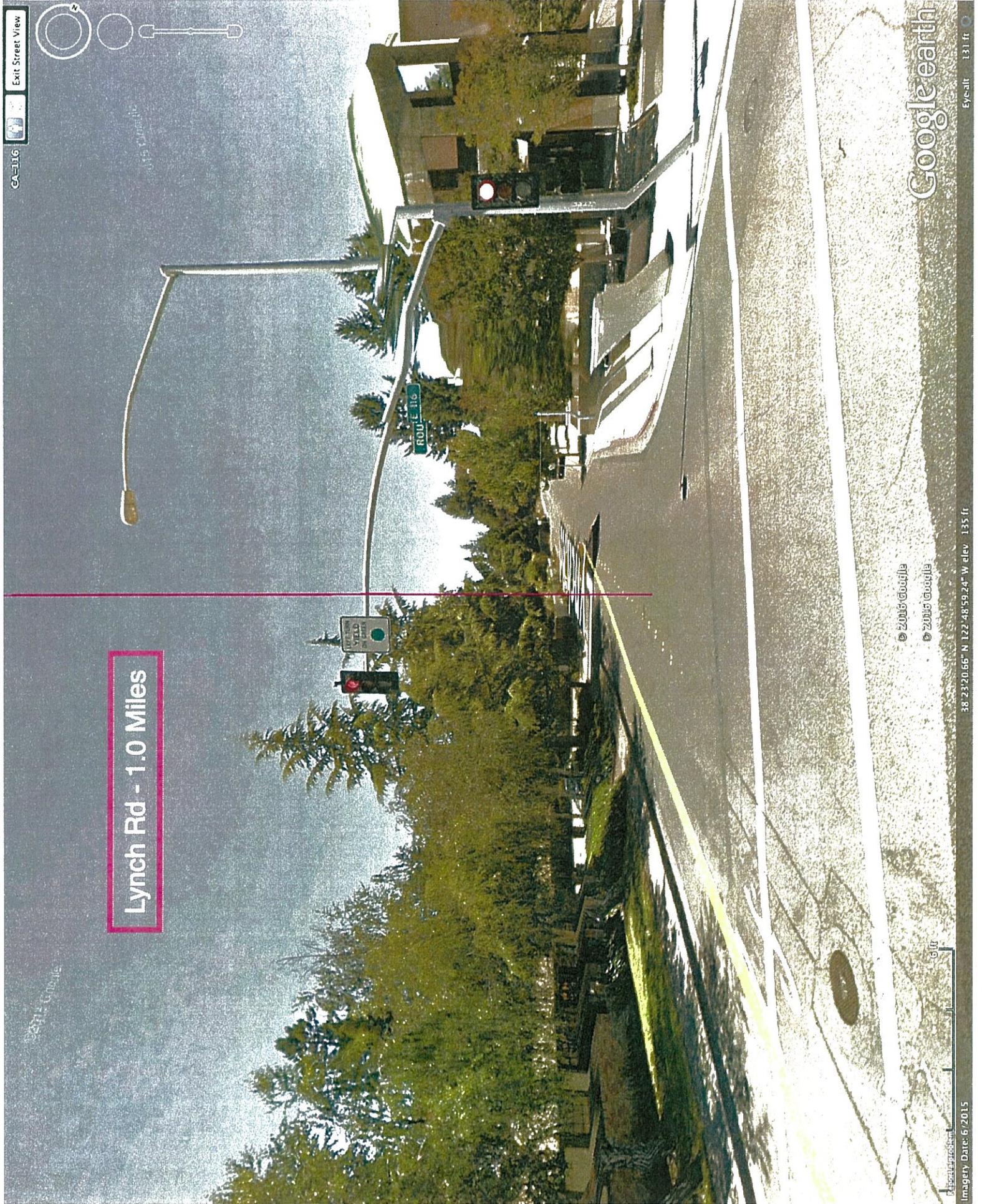
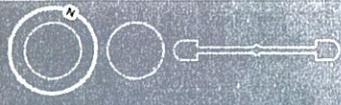
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Google earth



Lynch Rd - 1.0 Miles

CA-116 Exit Street View



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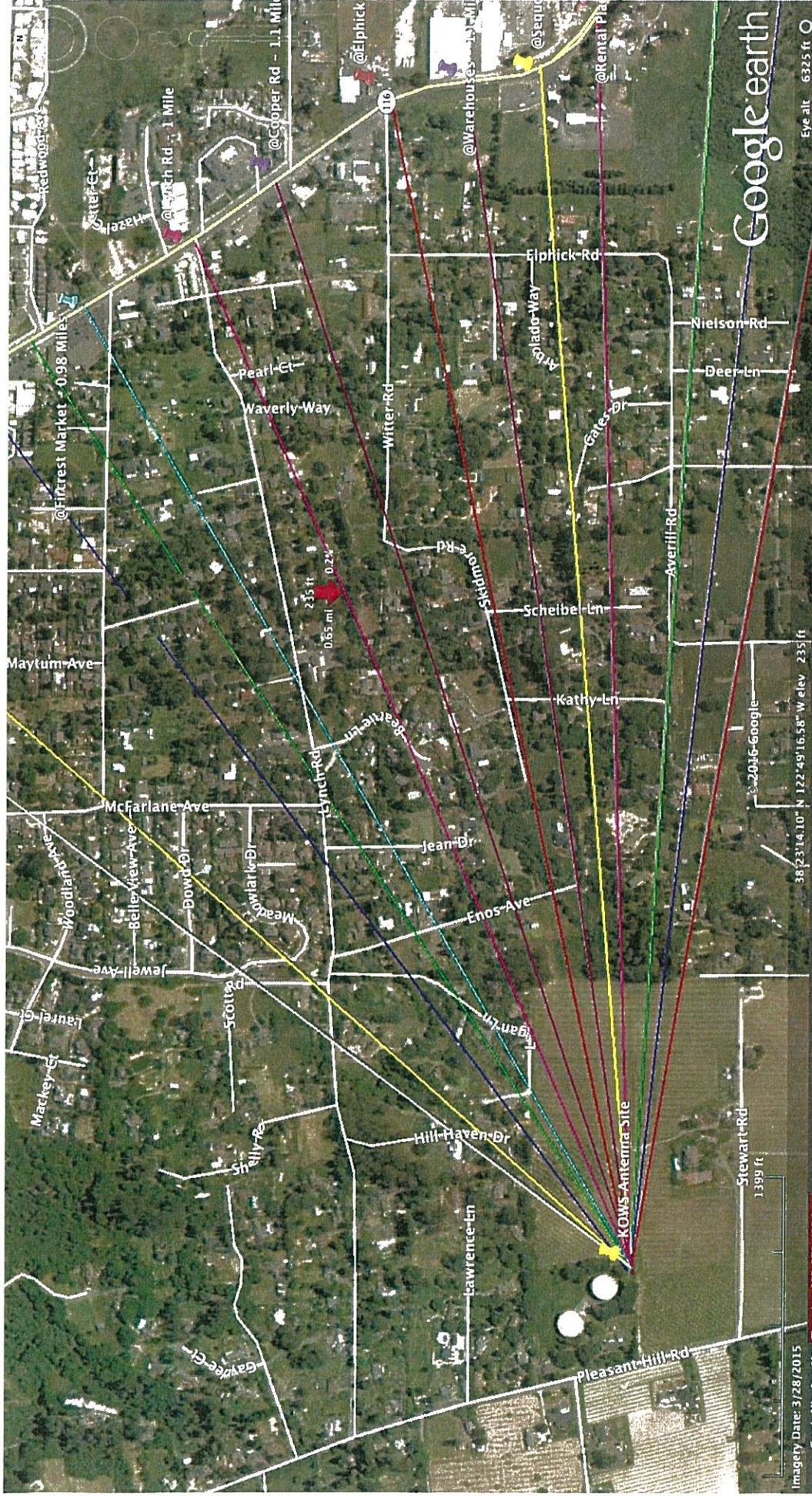
Google earth



Imagery Date: 6/2015

38° 23' 20.66" N 122° 48' 59.24" W elev. 135 ft

Elev: alt 131 ft



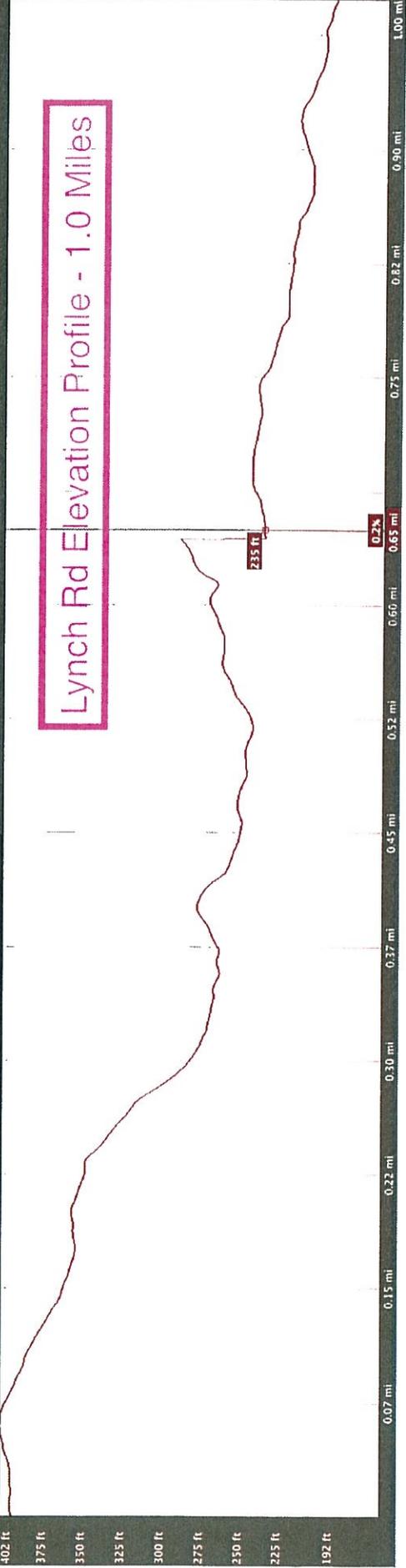
Google earth

Eye alt: 6325 ft

38°23'14.10" N 122°49'16.58" W elev: 235 ft

Imagery Date: 3/28/2015  
 Graph: Min, Avg, Max. Elevation: 192, 278, 402 ft  
 Range: Totale: Distance: 1.00 mi | Elev Gain/Loss: 107 ft, -309 ft | Max Slope: 35.3%, -88.1% Avg Slope: 5.6%, -7.6%

Lynch Rd Elevation Profile - 1.0 Miles



402 ft  
 375 ft  
 350 ft  
 325 ft  
 300 ft  
 275 ft  
 250 ft  
 225 ft  
 192 ft

0.07 mi 0.15 mi 0.22 mi 0.30 mi 0.37 mi 0.45 mi 0.52 mi 0.60 mi 0.65 mi 0.75 mi 0.82 mi 0.90 mi 1.00 mi

CA-116

Exit Street View

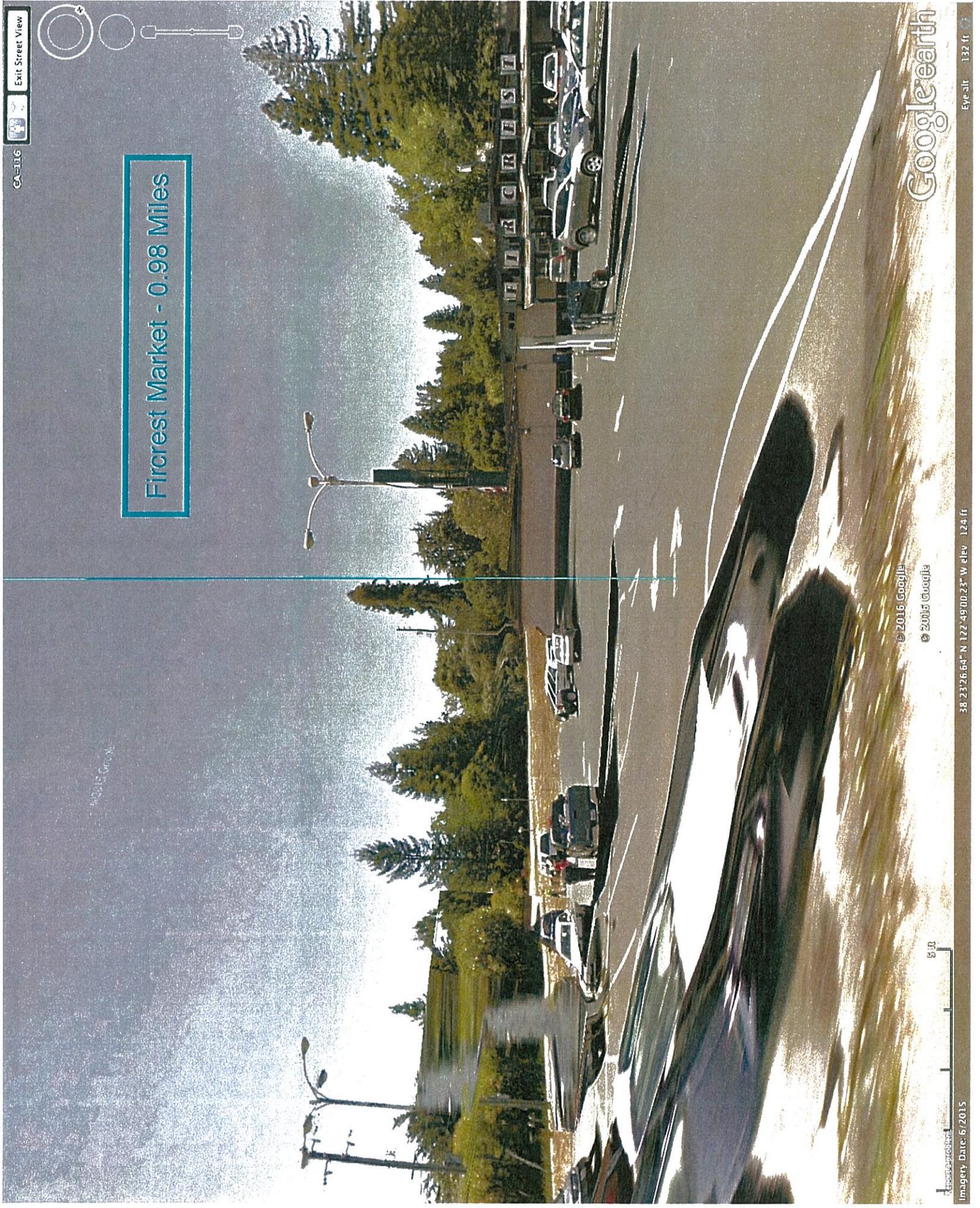
Fircrest Market - 0.98 Miles

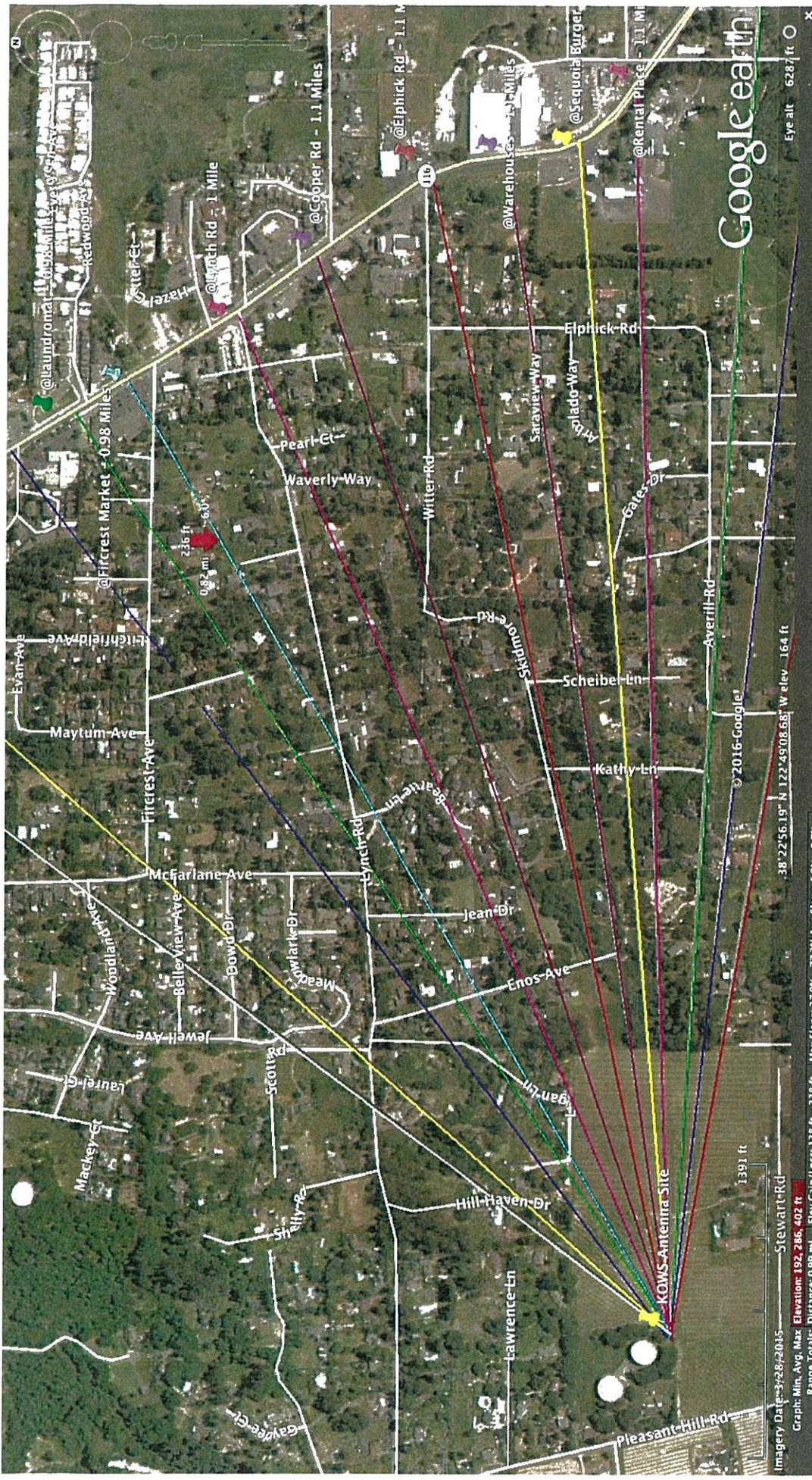
Google Earth

Eye alt 132 ft

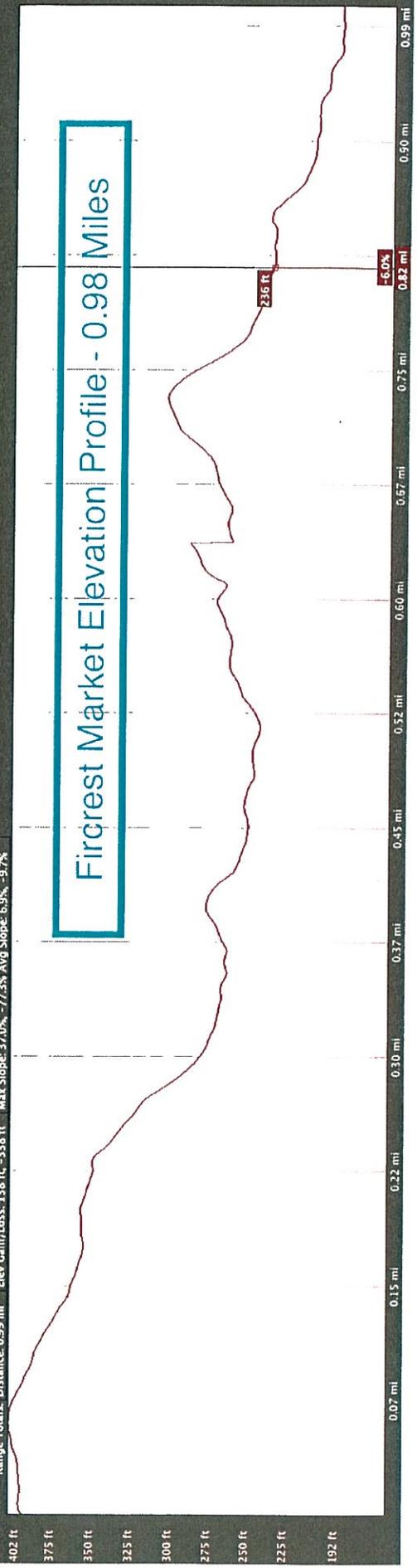
© 2016 Google © 2015 Google  
38.23126654° N 122.490023° W elev 124 ft

Imagery Date: 6/2015





# Fircrest Market Elevation Profile - 0.98 Miles

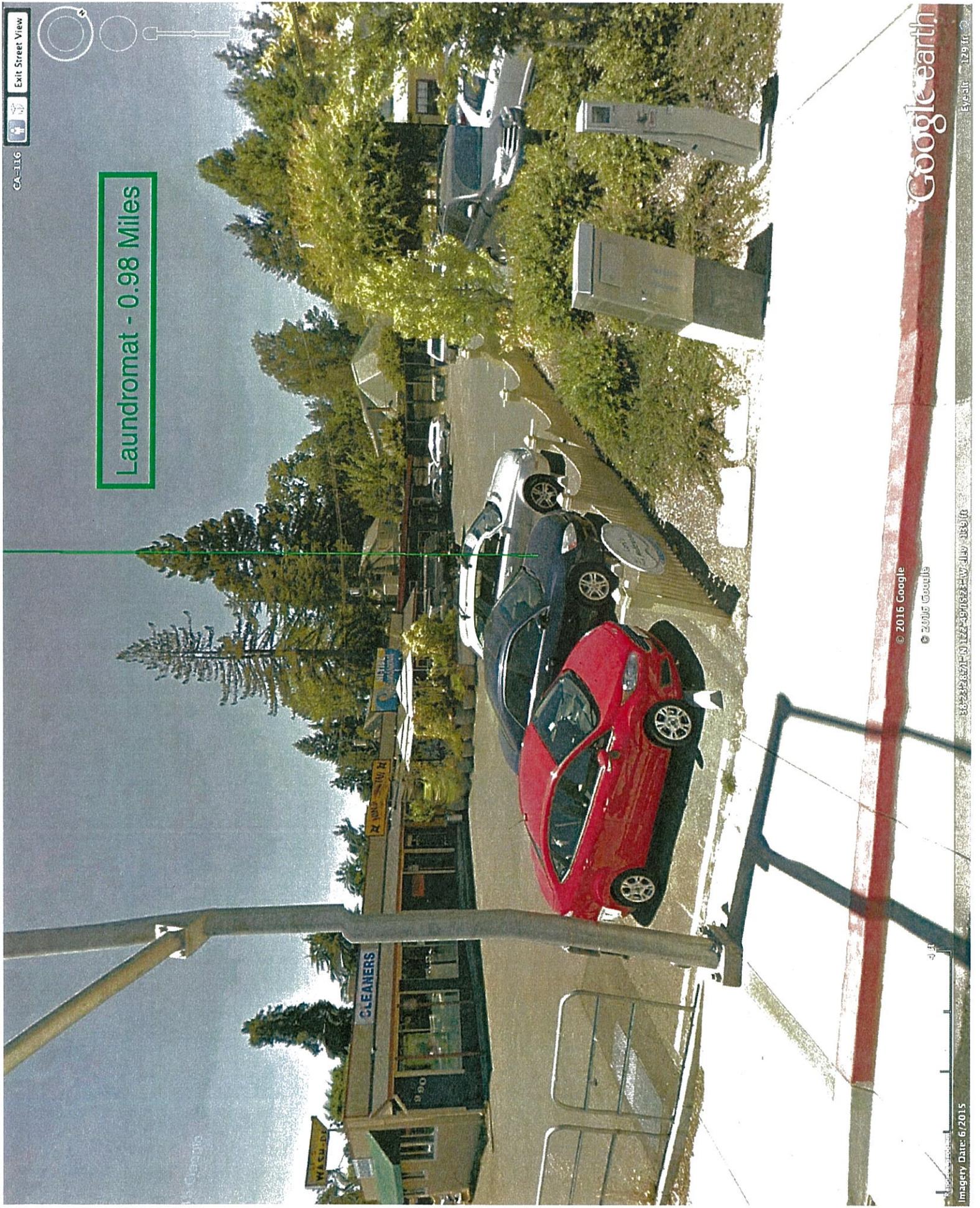


CA=116



Exit Street View

Laundromat - 0.98 Miles



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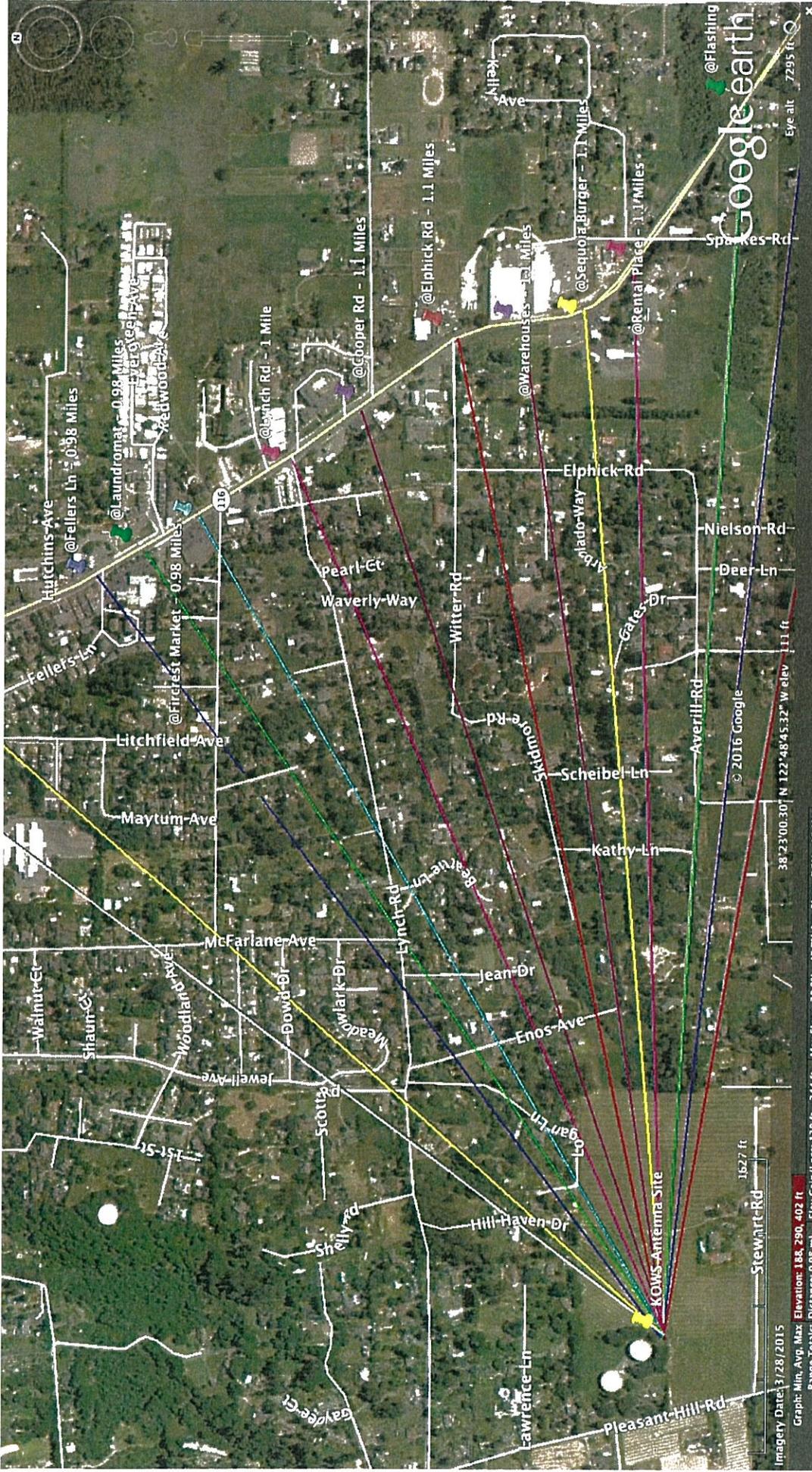
© 2016 Google

38°23'28.71"N 122°49'15.23"W Elev: 1159 ft

Imagery Date: 6/2015

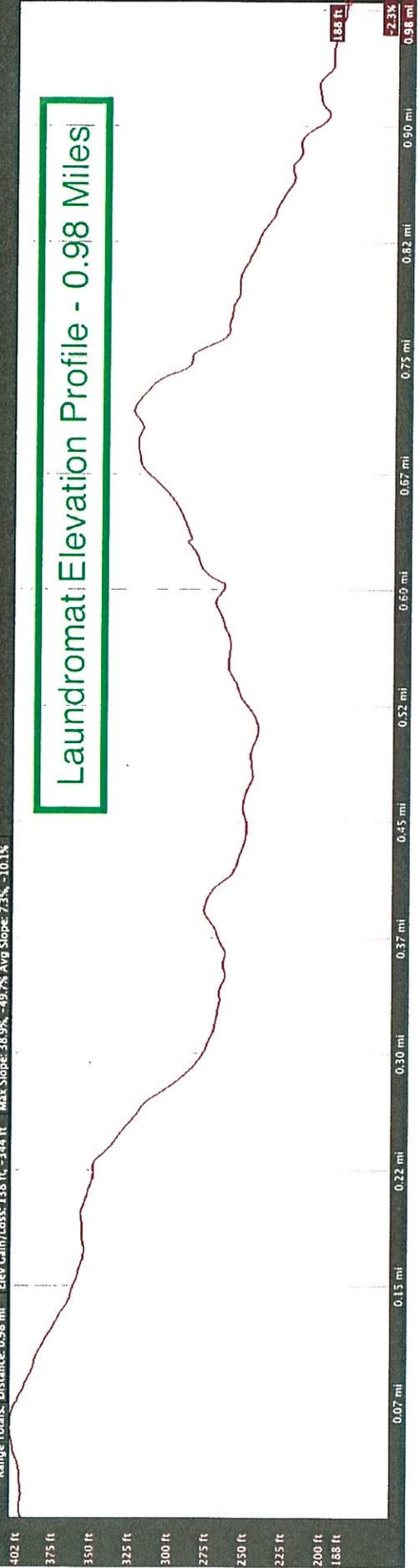
Google earth

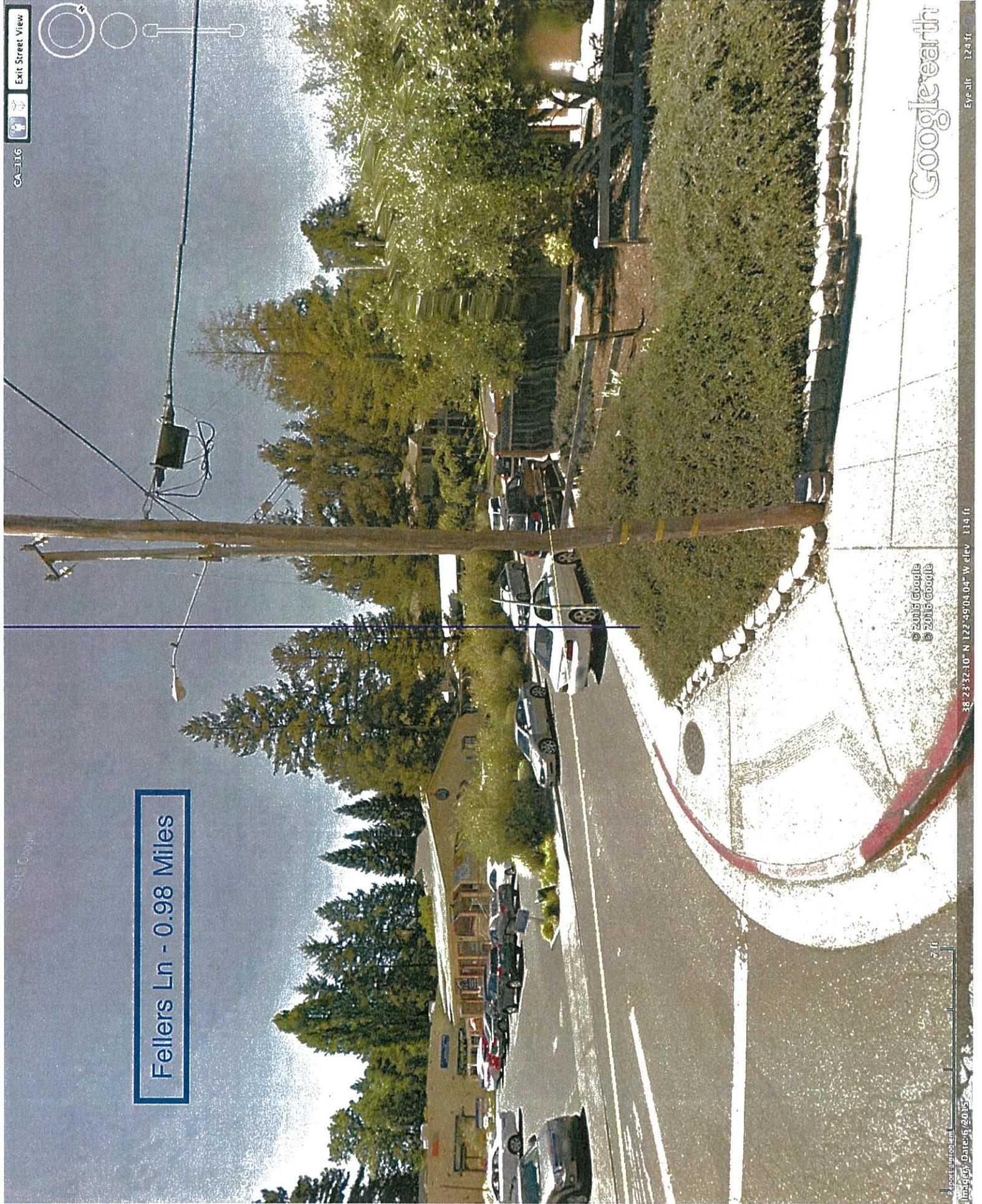
Eye alt: 129 ft



# Laundromat Elevation Profile - 0.98 Miles

Imagery Date: 3/28/2015  
 Graph: Min, Avg, Max: Elevation: 188, 290, 402 ft  
 Range Totals: Distance: 0.98 mi | Elev Gain/Loss: 138 ft, -344 ft | Max Slope: 38.9%, -49.7% | Avg Slope: 7.3%, -10.1%





Fellers Ln - 0.98 Miles

GA-116



Exit Street View



Google earth

© 2015 Google  
© 2015 Google

7 ft

Report a problem

Images Date: 6/20/15

38° 23' 32.10" N 112° 49' 04.04" W elev 114 ft

Eye alt 124 ft



Petaluma Ave - 1.1 Miles

Petaluma Ave



Exit Street View

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© 2016 Google  
© 2016 Google

Google earth

4 ft

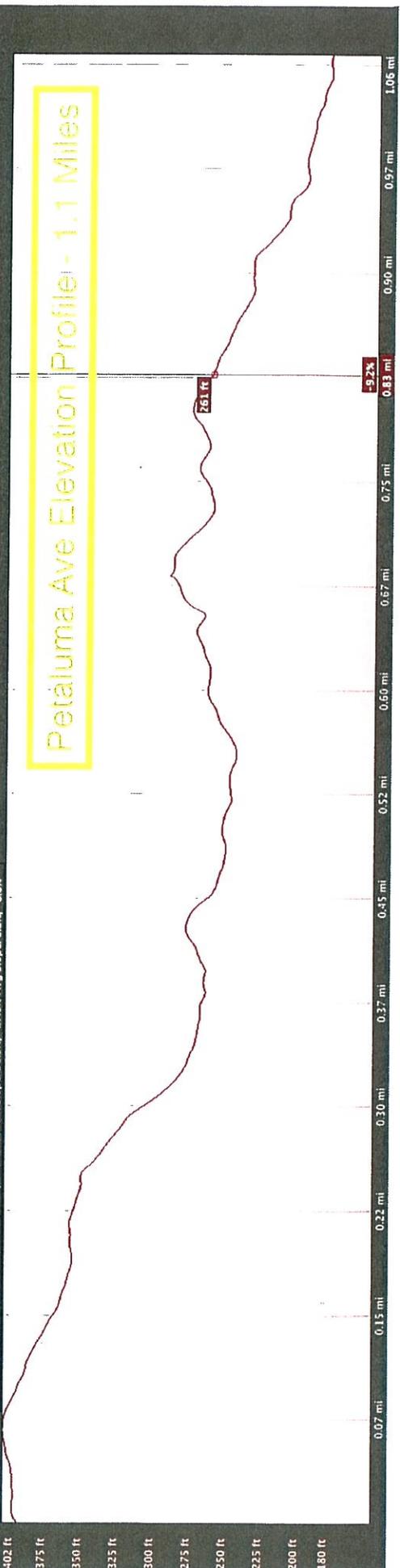
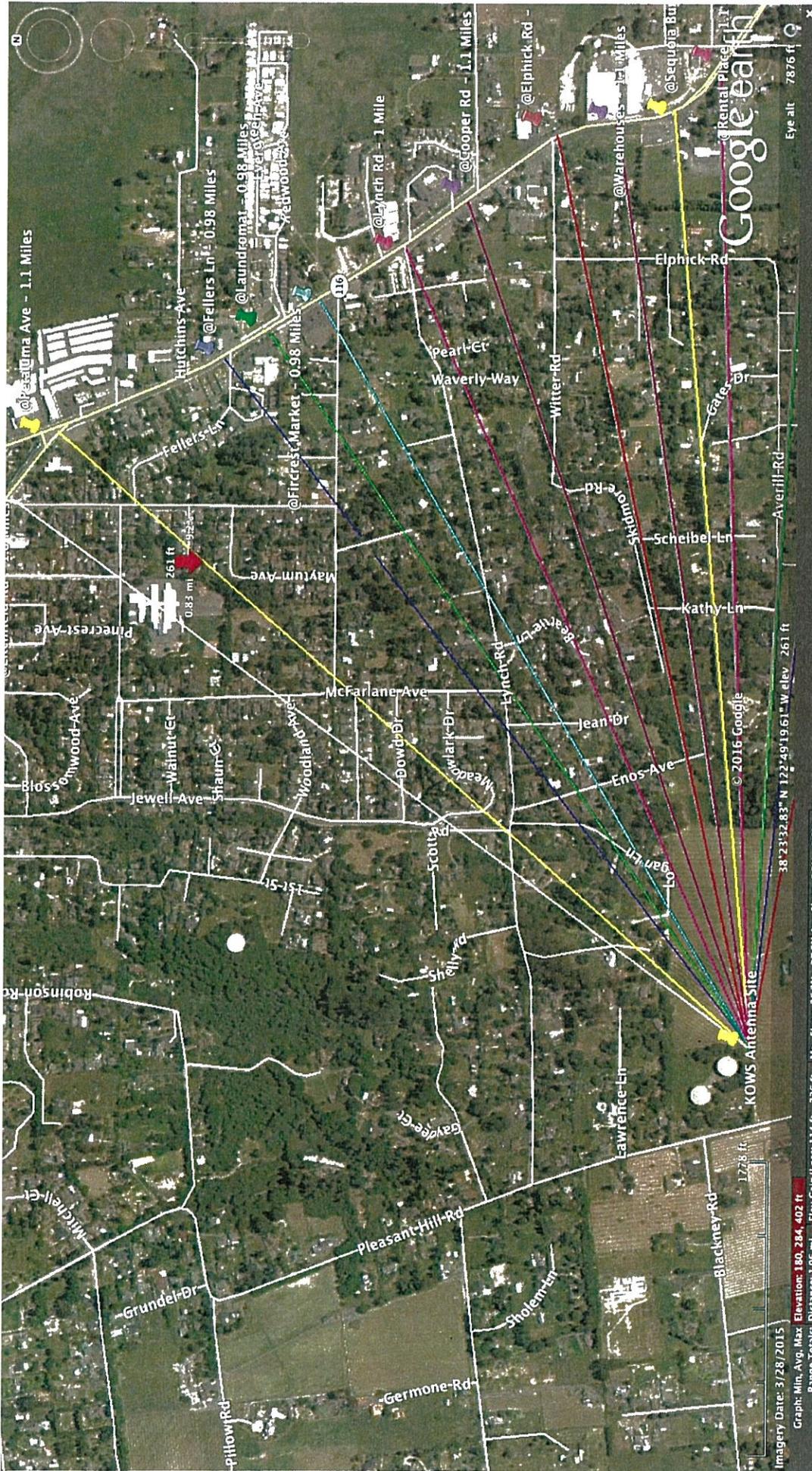
Imagery Date: 5/2015

38°23'41.70" N 122°49'09.67" W elev 105 ft

Eye alt

111 ft





Imagery Date: 3/28/2015  
 Graph: Min, Avg, Max Elevation: 180, 284, 402 ft  
 Range Totals: Distance: 1.06 mi | Elev Gain/Loss: 114 ft, -326 ft | Max Slope: 36.3%, -27.6% Avg Slope: 6.2%, -8.6%

402 ft 375 ft 350 ft 325 ft 300 ft 275 ft 250 ft 225 ft 200 ft 180 ft

0.07 mi 0.15 mi 0.22 mi 0.30 mi 0.37 mi 0.45 mi 0.52 mi 0.60 mi 0.67 mi 0.75 mi 0.83 mi 0.90 mi 0.97 mi 1.06 mi

Petaluma Ave Elevation Profile - 1.1 Miles

Google earth

Eye alt: 7876 ft

© 2016 Google

38°23'32.83" N 122°49'19.61" W elev: 261 ft

KOWS Antenna Site

1728 ft

Blackney Rd

Shoalem Ln

Germone Rd

Pleasant Hill Rd

Mitchell Ct

Grundel Dr

Pittow Rd

Blackney Rd

Shoalem Ln

Germone Rd

Pleasant Hill Rd

Mitchell Ct

Grundel Dr

Pittow Rd

Blackney Rd

Shoalem Ln

Germone Rd

Pleasant Hill Rd

Mitchell Ct

Grundel Dr

Pittow Rd

Blackney Rd

Shoalem Ln

Germone Rd

Pleasant Hill Rd

Mitchell Ct

Grundel Dr

Pittow Rd

Blackney Rd

Shoalem Ln

Germone Rd

0.07 mi 0.15 mi 0.22 mi 0.30 mi 0.37 mi 0.45 mi 0.52 mi 0.60 mi 0.67 mi 0.75 mi 0.83 mi 0.90 mi 0.97 mi 1.06 mi

402 ft 375 ft 350 ft 325 ft 300 ft 275 ft 250 ft 225 ft 200 ft 180 ft

Imagery Date: 3/28/2015

Graph: Min, Avg, Max Elevation: 180, 284, 402 ft

Range Totals: Distance: 1.06 mi | Elev Gain/Loss: 114 ft, -326 ft | Max Slope: 36.3%, -27.6% Avg Slope: 6.2%, -8.6%

KOWS Antenna Site

1728 ft

Blackney Rd

Shoalem Ln

Germone Rd

Pleasant Hill Rd

Mitchell Ct

Grundel Dr

Pittow Rd

Blackney Rd

Shoalem Ln

Germone Rd

Pleasant Hill Rd

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Germone Rd

Pleasant Hill Rd

Mitchell Ct

Grundel Dr</



Litchfield Rd - 1.07 Miles

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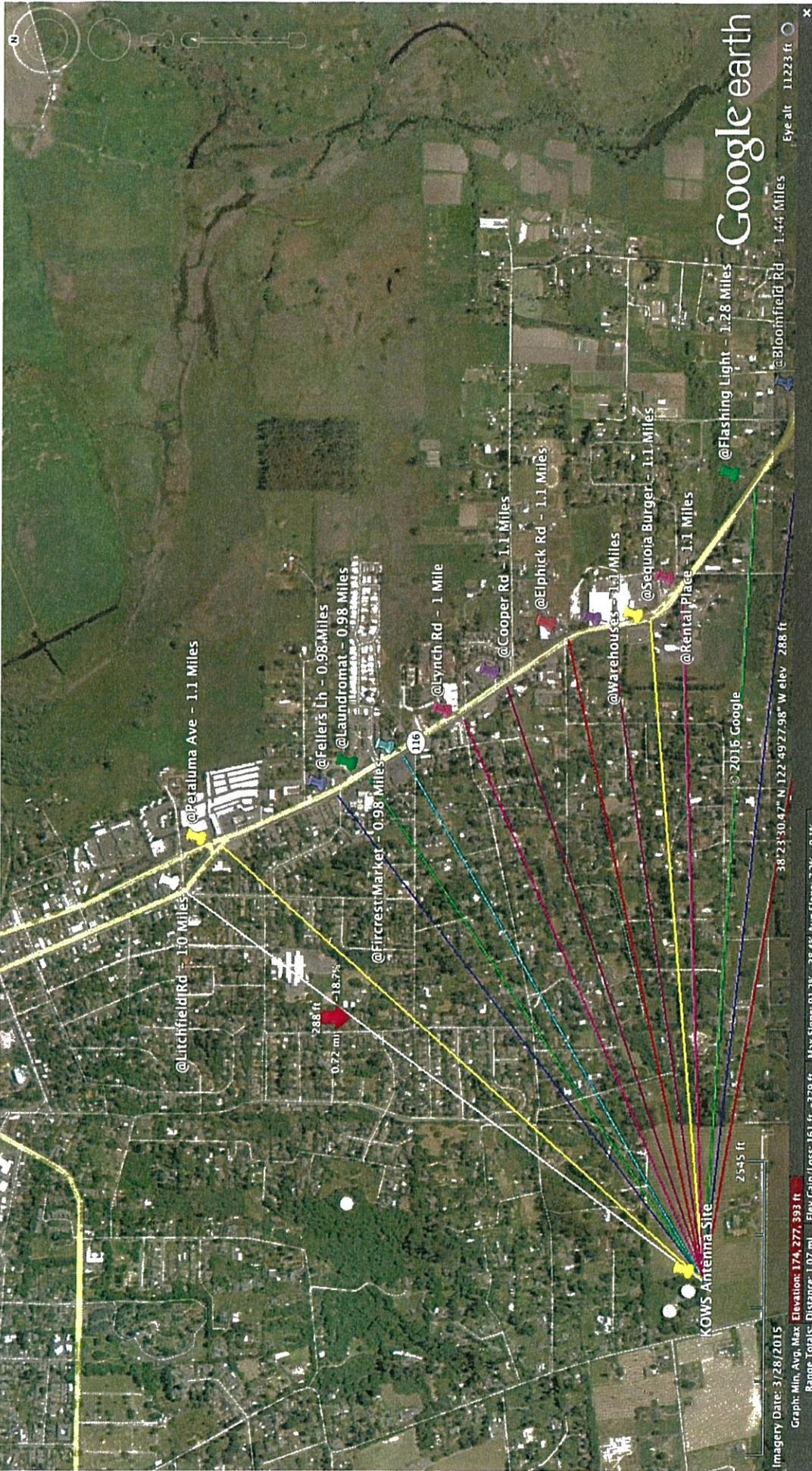
Google earth

210 ft

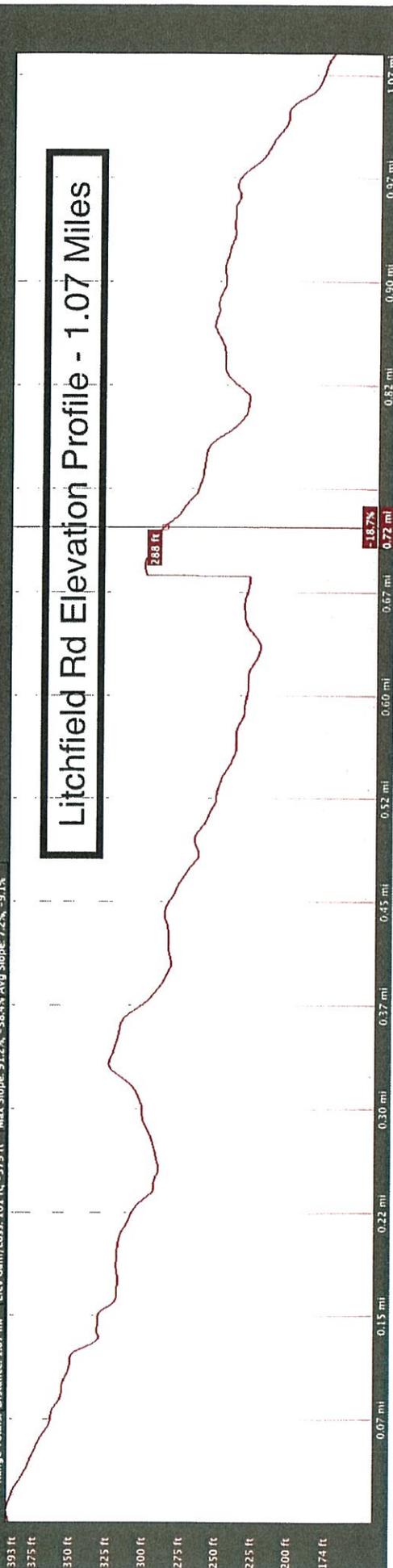
Report a problem  
Imagery Date: 5/2015

38°23'42.87" N 122°49'17.19" W elev 131 ft

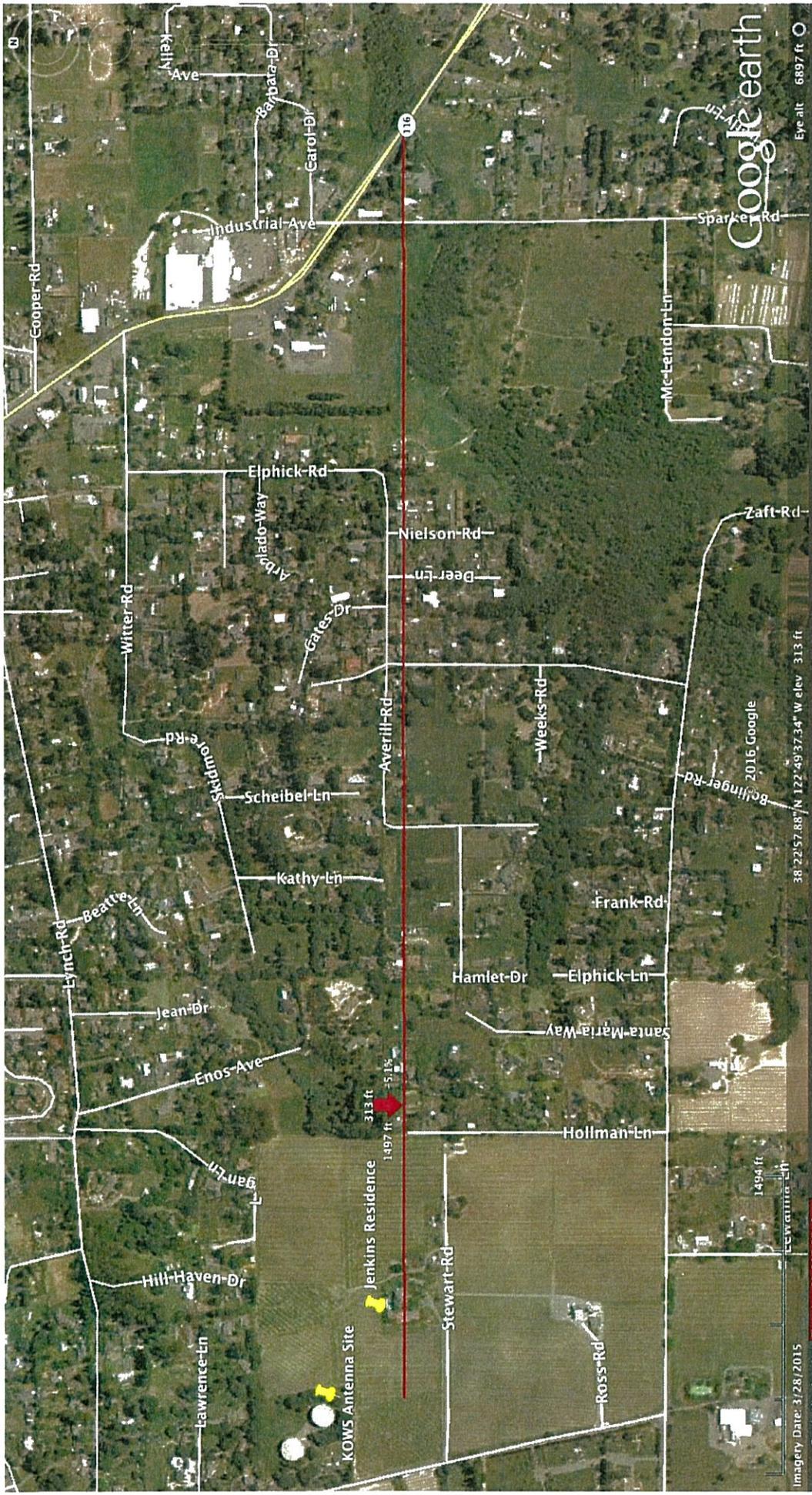
Eye alt 110 ft



Imagery Date: 3/28/2015  
 Graph: Min, Avg, Max Elevation: 174, 277, 393 ft  
 Range Totals: Distance: 1.07 mi | Elev Gain/Loss: 161 ft, -379 ft | Max Slope: 91.2%, -38.4% Avg Slope: 7.2%, -9.1%  
 Eye alt: 11223 ft



# Litchfield Rd Elevation Profile - 1.07 Miles



Google earth

Eye alt: 6897 ft

2016 Google  
38 22'57.88" N 122 49'37.34" W elev 313 ft

Imagery Date: 3/28/2015

Graph: Min, Avg, Max Elevation: 93, 205, 354 ft  
Range Totals: Distance: 1.25 mi | Elev Gain/Loss: 81.5 ft, -296 ft | Max Slope: 21.1%, -40.5% Avg Slope: 4.2%, -6.2%

# Jenkins Residence Elevation Profile

