COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: August 15, 2019

TO: Zoning Hearing Officer

FROM: Planning Staff

SUBJECT: Consideration of a Use Permit, pursuant to Section 6500 of the San Mateo County Zoning Regulations, to install a new wireless telecommunication facility on an existing joint utility pole located in the public right-of-way in front of 1175 Parrott Drive in the unincorporated San Mateo Highlands area of San Mateo County. This item was continued from the May 16, 2019 Zoning Hearing Officer hearing.

County File Number: PLN 2018-00079 (Verizon/Modus)

PROPOSAL

The applicant proposes to install new wireless telecommunication facility on an existing joint utility pole located in the public right-of-way in front of 1175 Parrott Drive in the unincorporated San Mateo Highlands area. The new facility will consist of a 7-foot pole extension, one 4-foot tall cylindrical antenna, and ancillary pole mounted equipment boxes. The new facility will have an effective height of 48'-11" above grade where the maximum allowed height is 36 feet above grade. No grading or tree removal activities are proposed.

This item was most recently continued from the May 16, 2019 Zoning Hearing Officer meeting to evaluate the potential impact of existing guy wires on estimated radio frequency (RF) emission totals and allow staff time to respond to concerns raised in a request for continuance from the public. A revised RF report has determined that existing guy wires do not impact estimated RF emissions and the applicant has elected to request a decision on their proposal.

RECOMMENDATION

That the Zoning Hearing Officer approve the Use Permit, County File Number PLN 2018-00079, by making the required findings and adopting the conditions of approval listed in Attachment A.

BACKGROUND

Report Prepared By: Laura Richstone, Project Planner, 650/363-1829

Applicant: Verizon Wireless c/o Modus

Land Owner: San Mateo County Department of Public Works

Pole Owner: PG&E

Location: Public Right-of-Way in front of 1175 Parrott Drive

APN(s): Public Right-of-Way adjacent to 038-130-120

Existing Zoning: R-1/S-8 (Single-Family Residential/Minimum Lot Size 7,500 sq. ft.)

General Plan Designation: Medium Low Density Residential Urban

Sphere-of-Influence: City of San Mateo

Existing Land Use: Utility Pole in the Public Right-of-Way

Flood Zone: Zone X (area of minimal flood risk); FEMA Panel No. 06081C 0165E; Effective October 16, 2012

Environmental Evaluation: The project is categorically exempt under the provisions of Class 3, Section 15303, of the California Environmental Quality Act (CEQA) Guidelines for the construction of a new small structure and the installation of small new equipment and facilities within a small structure.

Setting: The proposed project site is located on an existing utility pole in the public right-of-way (ROW) north of Highway 92 and east of Highway 280, in the unincorporated San Mateo Highlands area of San Mateo County. The proposed project site is located in an urbanized single-family residential neighborhood.

Chronology:

Date		Action
April 11, 2018	-	Use Permit application submitted.
September 24, 2018	-	Application deemed complete.
November 15, 2018	-	Project continued from the Zoning Hearing Officer Public Hearing to allow additional time for public review.
February 21, 2019	-	Project continued from the Zoning Hearing Officer Public Hearing at the request of the applicant.

March 21, 2019 - Project continued from the Zoning Hearing Officer Public Hearing to allow additional time for staff to respond to subsequent materials submitted by the applicant in response to public comments.

May 16, 2019 - Project continued from the Zoning Hearing Officer Public Hearing to assess the impact of guy wires on potential RF exposure and for staff to address public comments.

August 15, 2019 - Zoning Hearing Officer Public Hearing.

DISCUSSION

A. KEY ISSUES

The concerns raised in the request for continuance submitted on May 15, 2019 (Attachment C) will be addressed below. The staff report from the May 16, 2019 Zoning Hearing Officer meeting evaluating the proposed project's compliance with applicable County regulations is attached to this staff report (Attachment E).

1. Request for Continuance

The San Mateo Highlands Community Association (SMHCA) submitted a request for project continuance on May 15, 2019. Staff's response to the items of concerns by the SMHCA are addressed below:

a. *We most certainly oppose the County staff unsubstantiated statement: "That this telecommunication facility is* ***necessary for the public health, safety, convenience or welfare of the community*** *(emphasis added). Do you stand behind this statement in the County Staff Report?*
Staff Response: As outlined in the attached Staff Report, the applicant has identified this area of the San Mateo Highlands as an area with marginal cellular coverage and has proposed a small cell facility to close the gap in service. The proposed project would improve cellular coverage, decrease dropped calls, and increase data capacity for the greater community and transient traffic.

Due to the decreased utilization of landlines, cell phones have become both an essential communication tool during emergency situations and a significant tool of convenience for most people's everyday life. A project that will increase the effectiveness, coverage, quality, and durability of existing communication infrastructure to meet the growing cellular and data needs of the surrounding overall community of wireless users is considered necessary for the public health, safety, convenience, or welfare for the community.

Similarly, the proposed wireless telecommunication facility would not be detrimental to the health, safety, or general welfare because the equipment would be installed, maintained and operated in compliance with all applicable public health and safety regulations, including but not limited to all applicable California Fire Codes, California Public Utilities Commission (CPUC) General Order 95 engineering regulations (i.e. wind loads, pole strength, and pole attachment etc.), and Federal Communication Commission (FCC) standards for exposure to radio frequency (RF) emissions.

The proposed project involves the installation of pole mounted ancillary boxes, a 4-foot antenna, and a 7-foot extension bracket on top of an existing utility pole. The project has been reviewed and conditionally approved by the Department of Public Works and would not result in obstructions that would impede access or create hazards for pedestrians, vehicles, or cyclists as the proposed equipment boxes will be pole mounted at approximately 7 feet above grade. In addition, the proposed antenna would be inaccessible to the general public due to its height atop the existing utility pole. A report prepared by Hammet & Edison, Inc., Consulting Engineers, determined the proposed facility will comply with all FCC standards for limiting public exposure to RF energy. As recommended by Hammett & Edison, signage shall be installed to notify workers in close proximity to the antenna about potential exposure to RF emissions (Condition of Approval No. 17).

Development is permitted to occur in high fire areas as long as a proposed project can demonstrate compliance with applicable safety and fire codes. As a public utility, the safe installation and construction of the proposed facility is regulated by the CPUC. The applicant has provided structural calculations that demonstrate that the project can be safely installed. Cal-Fire has also reviewed the proposed project for adherence to applicable fire code regulations, safety, and potential fire hazards, and has conditionally approved the project. Based on the project's conditional approval from Cal-Fire and the Department of Public Works and it's adherence to GO95 safety requirements the finding can be made that the telecommunication facility is necessary for the public health, safety, convenience or welfare of the community. (See attached staff report for further discussion).

b. *Major Fire Safety Issue not addressed in Staff Report. PG&E has repeatedly failed to ensure a safe environment as it relates to their equipment…Attaching a physically significant 5G cell phone antenna to a telephone pole increase the infrastructure danger to the public...County staff report does not provide an analysis of liability of*

either the applicant nor PG&E in the event of failures. Staff also does not provide a mechanism of who will pay in the event of loss of life or property in the event of safety failure. What is the County plan for these contingencies?

Staff Response: PG&E is regulated by the CPUC. The County does not have the authority to oversee PG&E's infrastructure management. Management of such infrastructure is the responsibility of PG&E, consistent with the standards set by the CPUC.

The County does not prohibit development, or the installation of utility infrastructure based on its proposed location in a Very High State Responsibility Area (SRA). Development is permitted to occur in such areas as long as projects can demonstrate compliance with current fire and safety regulations. Classified as a public utility, the safe installation, construction and operation of wireless facilities is regulated by the CPUC. The CPUC has anticipated the installation of wireless facilities on utility poles over existing powerlines and includes rules and standards such as pole loads and separation requirements etc. to ensure such infrastructure is installed safely. Structural calculations performed by the applicant demonstrate that the proposed facility adheres to CPUC safety requirements while a PG&E analysis concluded that the existing pole can support the proposed infrastructure (i.e. no replacement pole required). Cal-Fire has also reviewed the proposed project for adherence to applicable fire code regulations, safety, and potential fire hazards, and has conditionally approved the project.

If a fire were to occur in this area of the San Mateo Highlands, an investigation as to the circumstances and cause of the fire would be conducted. If the investigation identified that a certain individual or entity were the cause of the fire, financial liability would be determined by the Courts.

c. *San Mateo County Planning should not take action on* [the proposed project] *when there is pending national legislation, H.R. 530, by Congresswoman Anna Eshoo, as well as ongoing litigation in the 9th circuit court, that directly impacts Staff's conclusions on this 5G Verizon proposal. No decision should be made, when the conflict between local and Federal regulations is unsettled, unstable, and unresolved.*

Staff Response: The outcome, timeline, and ramifications of pending litigation and legislation is unknown and uncertain. Holding current local permits for a decision that may have an unfavorable ruling, be struck down, or appealed to a higher court of appeals until an ultimate

decision is reached could take years. Applications for wireless facilities are entitled to accelerated processing pursuant to the Declaratory Ruling and Third Report and Order released by the FCC. Therefore, the County cannot legally postpone action on this application due to pending legislation or litigation and the current project must be processed according to the regulations and laws currently in effect.

d. *Other bay area municipalities have suspended approval activities on these 5g towers pending clarification. What steps has San Mateo County taken in this regard?*

Staff Response: The Planning Department will adhere to the FCC's August 2018 ruling that local moratoria on telecommunication facilities violates Section 253 of the Telecommunications Act by effectively prohibiting the installation of wireless facilities. Though the Planning and Building Department is aware that the Wireless Telecommunication Ordinance is in need of an update to reflect current state and federal regulations, as of now there is no timeline for an updated Wireless Ordinance.

e. *Due process is not being followed consistently. Documents for Conditional approval from the Department of Public Works and Cal-fire are not provided in the staff report. The names of state licensed personnel, especially engineers, who granted the conditional approvals based on safety for the public are missing.*

Staff Response: The installation, operation, and maintenance of wireless facilities are regulated by the CPUC. While the applicant has submitted structural calculations demonstrating compliance with regulatory standards, review for compliance with CPUC and PG&E engineering requirements are carried out through a separate permitting process by PG&E. The County Department of Public Works does not review proposed wireless facilities for structural safety but to determine if there would be an impact to the right-of-way and if an encroachment permit is required. The structural safety of the proposed project is regulated by the CPUC and reviewed by PG&E. Though no engineering license is required to determine if an encroachment permit is necessary, review of the proposed project by the Department of Public Works was conducted by a state licensed engineer (Lic. No. 37439).

No prior request for approval letters have been received by the Planning and Building Department. Approval letters are not typically included in staff reports but are included in the file and provided upon request. Department of Public Works approval is granted through the

County's online permitting system and no documents or formal approval letters are generated during County responsible agency review. An approval letter from Cal-Fire was received and is accessible for public review online through the County's Accela Citizen Access Permit Center or can be viewed in person at the County Planning and Building Department.

f. *The staff report does not properly verify and certify the safety, reliability, and private as well as government security. 5G Network security is a major, unresolved national issue.*

Staff Response: Though this site has not been identified as a 5G facility, FCC regulations bar local jurisdictions from effectively prohibiting the installation of cellular facilities. In other words, local jurisdictions cannot discriminate against facilities based on the technology they propose or service they provide (i.e. 4G vs. 5G). Local jurisdictions regulate the location and appearance of proposed equipment while the FCC regulates cellular networks and services. If the network security of a 5G system is a "major unresolved national issue", any fix or resolution to such an issue would be carried out at a federal level through the FCC and is not within the jurisdiction of local governments to address.

g. *Location of antenna violates SM County regulations. Less than 500 feet away from the proposed location, there are two (2) water towers on Tournament Drive that comply with County regulations for antenna placement and are in direct range of this antenna. Location at the water tower would not culminate in a prohibition of the wireless facility.*

Staff Response: The Wireless Ordinance is intended to be consistent with all State and Federal laws. The CPUC (State law) has stated that wireless carriers have the right to locate their infrastructure in the right-of-way and provides certain safety separation standards necessary to locate small cell wireless facilities on existing utility poles. In this instance, State separation standards require locating the antenna above the powerlines on top of the pole. The applicant's alternative site analysis did not identify feasible alternatives that would not also require an extension in height and as the side arm mount analysis concluded that equipment could not be placed lower on the pole (reducing its overall height). As such, the applicant has proposed to move forward with the current proposal. In this instance, application of County height regulations would result in the effective prohibition of the wireless facility in this area. Per FCC regulations (Federal law), local jurisdictions are barred from prohibiting or enforcing regulations that would result in the effective prohibition of wireless facilities in identified service areas. As such, the height regulations called out in

the County Wireless Ordinance are are preempted by State and Federal law.

Though there is a water tower located near the proposed facility, that water tower is located outside of the right-of-way in a different jurisdiction (the Town of Hillsborough). The Planning and Building Department cannot force an applicant to move their project outside of their jurisdictional boundaries to another jurisdiction. As stated previously, wireless facilities were granted rights to locate their infrastructure within the right-of-way by the State. Per these State rights, the Planning and Building Department cannot require the applicant to locate facilities on government owned land or structures (i.e. the water towers) or even consider alternative locations outside of the right-of-way.

h. *The Staff Report appears contrary to the San Mateo County Supervisor's letter of objection to the FCC rules to limit local control of placement of equipment. The County report…convey*[s] *it is considering weakening the aesthetic standards in our wireless ordinance.* [In addition], *the FCC Declaratory Ruling…acknowledges that* [previous preemption provisions were unclear, clarifies the prohibition language in relation to] *state and local laws imposing aesthetic requirements, undergrounding requirements… and minimum spacing requirements…* [and establishes] *a three-part test for evaluating these restrictions.*

Staff Response: The Board of Supervisors letter to the FCC dated September 2018, raised concerns regarding the FCC's assumption of what does and does not constitute a visual impact. Though concerns were raised, the FCC has not rescinded its ruling. The Declaratory Ruling and Third Report and Order by the FCC does clarify that local jurisdictions can regulate cellular facilities based on aesthetics provided that the regulations do not result in the effective prohibition of wireless facilities. The FCC has established a three-part test to determine if aesthetic regulations materially inhibit the installation of wireless facilities. This test states *"…that aesthetic requirements are not preempted if they are (1) reasonable, (2) no more burdensome than those applied to other types of infrastructure deployment, and (3) published in advance."* Current design standards require mitigation measures such as screening wireless telecommunication facilities with landscaping and/or painting all equipment to blend with its surroundings. Since landscaping is not a feasible option for a facility located on a utility pole in the public right-of-way, the proposed facility has been conditioned to minimize visual impacts by painting the proposed antenna and equipment boxes a non-reflective brown color to blend-in with the existing pole per the standards. As of now, the

current design standards for wireless facilities meet this three-part test; they are reasonable, applied fairly to other cellular facilities and infrastructure projects, and are published in advance within the current Wireless Ordinance. Unless, and until, the Wireless Ordinance is amended to contain more specific design standards/aesthetic criteria, the proposed project cannot be held to design regulations that are not currently in place.

i *FCC has said that aesthetic requirements aimed at "avoiding or remedying the intangible public harm of unsightly or out-of-character deployments" are permissible.*

Staff Response: While local jurisdictions do have the authority to regulate cellular facilities based on aesthetic considerations, the proposed project adheres to the current design standards outlined in the Wireless Ordinance. These standards require screening wireless telecommunication facilities with landscaping and/or painting all equipment to blend with its surroundings. As stated previously, unless and until the WTF Ordinance is amended to contain more specific design standards/aesthetic criteria, the proposed project cannot be held to design regulations that are not currently in place.

j. *County Staff report has not addressed the proposal of this 5-story industrial antenna tower on Parrott Drive which is in a scenic corridor. The whole area is mapped sensitive habitat which is why it is RM zoned.*

Staff Response: This area is not located within a mapped scenic corridor. The closest mapped scenic corridor is the Junipero Serra State Scenic Corridor located approximately 1 mile away from the proposed project.

Regarding sensitive habitats, the General Plan defines sensitive habitats as *"any area where the vegetative, water, fish, and wildlife resources provide especially valuable and rare plant and animal habitats that can be easily disturbed or degraded."* The project site is located in a designated urban area zoned R-1/S-8. While the properties west of Parrott Drive are zoned RM, the project is separated from the Resource Management (RM) zoned parcels by a regularly trafficked, paved 30-foot wide road (Parrott Drive), and is located on an existing utility pole that is regularly serviced by PG&E in highly disturbed area. There is no expectation that the proposed project site (i.e. a utility pole located on a sidewalk in front of an existing house) hosts any special plants or animals; Nor, is there an expectation that the installation or operation of the proposed project would impact any sensitive plants or animals that may be located

across the street. Additionally, it should also be noted that the Wireless Ordinance allows wireless facilities to be located in RM zoned areas and/or in sensitive areas and encourages co-location of wireless facilities on existing infrastructure (like the proposed project) to reduce environmental impacts.

k. *Where is the certification from the Applicant, Verizon and the County that the added equipment will not cause a Safety hazard to property and will not catch fire with the additional equipment?*

Staff Response: Such a certification is not required by the Wireless Ordinance nor is such a certification required for any other permit issued by the County. The safe installation, maintenance, and operation of the facility is controlled by the CPUC and PG&E. The project has been reviewed and conditionally approved by Cal-Fire and the Department of Public Works based on applicable standards and regulations. Similarly, the electrical components, antenna, and other infrastructure required for the proposed project is manufactured per industry standards. With the conditional approval from Cal-Fire and the Department of Public Works, and adherence to required CPUC and PG&E safety standards, staff can conclude that the proposed project does not result in a safety hazard within the context of current laws and regulatory standards.

2. Updated Radio Frequency Report

During the May 16, 2019 Zoning Hearing Officer public hearing, a public comment was received stating that the safety of the existing guy wires as it pertained to conveyance of RF emissions to persons at ground level was not addressed in the Hammett and Edison Inc., RF report. During the hearing the RF engineer from Hammett & Edison clarified that the guy-wires would not transmit RF energy directly to persons on the ground. The Zoning Hearing Officer continued the hearing to allow the applicant to revise the RF report to address if the guy-wires were considered when performing estimated RF exposure rates.

A revised RF report was received on May 22, 2019 and is included as Attachment B to the staff report. The estimated RF exposure rates of 1.1% at ground level and 0.49% at second floor elevations for any of the nearby buildings did not change. The updated RF report clarified that its estimated results include worst case assumptions and accounted for "*reflection and re-radiation from the surrounding environment, nearby metallic surfaces, and guy-wires."* To address concerns regarding RF emissions, Verizon has offered to perform filed RF measurements after installation to confirm the proposed facility will stay within FCC emissions limit. Condition of Approval No. 19 has been added to require Verizon to take RF power density

measurements and submit documentation to the Planning Department for review.

B. ENVIRONMENTAL REVIEW

The project is categorically exempt pursuant to Section 15303, Class 3, of the California Environmental Quality Act (CEQA) related to the construction of a new, small structure and installation of small new equipment and a facility in a small structure.

C. REVIEWING AGENCIES

Department of Public Works
Cal-Fire

ATTACHMENTS

A. Recommended Findings and Conditions of Approval
B. Updated Radio Frequency Report, prepared by Hammett & Edison, dated May 22, 2019
C. Highlands Community Association request for continuance, dated May 15, 2019
D. San Mateo County Board of Supervisors Letter to the FCC, dated September 19, 2018
E. May 16, 2019 Staff Report. Attachments to this staff report can be found on the San Mateo County Planning and Building website under Public Hearings https://planning.smcgov.org/sites/planning.smcgov.org/files/events/PLN2018-00079_ZHO20190516_SRT_Attch_FINAL_0.pdf

LAR:cmc – LARDD0310_WCU.DOCX

Attachment A

County of San Mateo
Planning and Building Department

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2018-00079 Hearing Date: August 15, 2019

Prepared By: Laura Richstone
Project Planner

For Adoption By: Zoning Hearing Officer

RECOMMENDED FINDINGS

Regarding the Environmental Review, Find:

1. That this project is categorically exempt from environmental review, per Class 3, Section 15303, of the California Environmental Quality Act (CEQA) Guidelines for construction of a new small structure, and the installation of small new equipment and a facility in a small structure.

Regarding the Use Permit, Find:

2. That the establishment, maintenance, and/or conducting of the use will not, under the circumstances of this particular case, result in a significant adverse impact, or be detrimental to the public welfare or injurious to the property or improvements in said neighborhood because the projects will meet the health and safety standards set by the California Public Utilities Commission (CPUC) and the Federal Communications Commission (FCC). The project has been conditioned to maintain a valid FCC license and has been reviewed and granted conditional approval by Cal-Fire and the Department of Public Works.

3. That the telecommunications facility is necessary for the public health, safety, convenience, or welfare of the community. As the use of landlines decreases cellular phones have become an essential communication tool during emergency situations and a significant tool of convenience for most people's everyday life. The proposed facility contributes to an enhanced cellular network that will increase clarity, range, and system capacity, and therefore, be a benefit to both public and private users. The wireless network will be utilized by residents, commuters, and emergency personnel and is considered necessary for public health, safety, convenience, and welfare of the community.

RECOMMENDED CONDITIONS OF APPROVAL

Current Planning Section

1. This approval applies only to the proposal, documents, and plans described in this report and submitted to and approved by the Zoning Hearing Officer on August 15, 2019. Minor revisions or modifications may be approved by the Community Development Director if they are consistent with the intent of and in substantial conformance with this approval.

2. This use permit shall be for the proposed project only. Any modification or change in intensity of use shall require an amendment to the use permit. Amendments to the use permit require an application for amendment, payment of applicable fees, and consideration at a public hearing prior to any changes to the facility.

3. The permit shall be valid for ten (10) years until August 15, 2029. If the applicant seeks to renew this permit, renewal shall be applied for six (6) months prior to expiration with the Planning and Building Department and shall be accompanied by the renewal application and fee applicable at that time. Renewal of this permit shall be considered at a public hearing.

4. The applicant shall paint the antenna and associated ancillary boxes a non-reflective light brown color to match the existing utility pole. Color verification will be confirmed by the Current Planning Section prior to a final inspection for the encroachment permit.

5. During project construction, the applicant shall, pursuant to Chapter 4.100 of the San Mateo County Ordinance Code, minimize the transport and discharge of stormwater runoff from the construction site into storm drain systems by:

    a. Stabilizing all denuded areas and maintaining erosion control measures continuously between October 1 and April 30. Stabilizing shall include both proactive measures, such as the placement of hay bales or coir netting, and passive measures, such as revegetating disturbed areas with plants propagated from seed collected in the immediate area.

    b. Storing, handling, and disposing of construction materials and wastes properly, so as to prevent their contact with stormwater.

    c. Controlling and preventing the discharge of all potential pollutants, including pavement cutting wastes, paints, concrete, petroleum products, chemicals, wash water or sediments, and non-stormwater discharges to storm drains and watercourses.

    d. Avoiding cleaning, fueling, or maintaining vehicles on-site, except in a designated area where wash water is contained and treated.

e. Delineating with field markers clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees, and drainage courses.

f. Protecting adjacent properties and undisturbed areas from construction impacts using vegetative buffer strips, sediment barriers or filters, dikes, mulching, or other measures as appropriate.

g. Performing clearing and earth-moving activities only during dry weather.

h. Limiting and timing application of pesticides and fertilizers to prevent polluted runoff.

i. Limiting construction access routes and stabilizing designated access points.

j. Avoiding tracking dirt or other materials off-site; cleaning off-site paved areas and sidewalks using dry sweeping methods.

k. The contractor shall train and provide instruction to all employees and subcontractors regarding the construction best management practices.

6. This permit does not allow for the removal of any trees. Any tree removal will require a separate permitting process.

7. The applicant shall not enter into a contract with the landowner or lessee which reserves for one company exclusive use of structures on this site for telecommunications facilities.

8. The wireless telecommunications facility shall not be lighted or marked unless required by the Federal Communications Commission (FCC) or the Federal Aviation Administration (FAA).

9. The applicant shall file, receive, and maintain all necessary licenses and registrations from the Federal Communications Commission (FCC), the California Public Utilities Commission (CPUC), and any other applicable regulatory bodies prior to initiating the operation of the facility. The applicant shall supply the Planning and Building Department with evidence of each of these licenses and registrations. If any required license is ever revoked, the applicant shall inform the Planning and Building Department of the revocation within ten (10) days of receiving notice of such revocation.

10. Once a use permit is obtained, the applicant shall obtain an encroachment permit and build in accordance with the approved plans.

11. The encroachment permit's final inspection approval shall be dependent upon the applicant obtaining a permanent and operable power connection from the applicable energy provider.

12. The wireless telecommunication facility and all equipment associated with it shall be removed in its entirety by the applicant within 90 days if the FCC and/or CPUC license and registration are revoked or the facility is abandoned or no longer needed, and the sites shall be restored to blend with the surrounding area. The owner and/or operator of the wireless telecommunication facility shall notify the Planning Department upon abandonment of the facility. Restoration shall be completed within two (2) months of the removal of the facility.

13. The wireless telecommunications facility shall be maintained by the permittee(s) and subsequent owners in a manner that implements visual resource protection requirements of Section 6512.2.E and F above (e.g., painting), as well as all other applicable zoning standards and permit conditions.

14. Noise sources associated with demolition, construction, repair, remodeling, or grading of any real property shall be limited to the hours from 7:00 a.m. to 6:00 p.m., weekdays and 9:00 a.m. to 5:00 p.m., Saturdays. Said activities are prohibited on Sundays, Thanksgiving, and Christmas (San Mateo Ordinance Code Section 4.88.360).

15. If technically practical and without creating any interruption in commercial service caused by electronic magnetic interference (EMI), floor space, tower space and/or rack space for equipment in a wireless telecommunication facility shall be made available to the County for public safety communication use.

16. With the exception of emergency maintenance activities, all routine maintenance activities for the proposed wireless facility shall occur during non-peak commute hours. If maintenance activities should require the partial obstruction of Parrott Drive the applicant shall obtain an encroachment permit from the Department of Public Works.

17. Caution signs are required to be posted 10-15 feet below the antenna readily visible from any angle of approach to person who might need to work within the project area as recommended by the attached RF reports.

18. If a less visually obtrusive/reduced antenna technology becomes available for use during the life of this project, at the request of the Community Development Director, the applicant shall present a redesign incorporating this technology into the project for review.

19. Within 15 days of the installed and operating new antenna, Verizon Wireless or its authorized and qualified representative shall take RF power density field measurements (with the antennas operating). These measurements shall be

submitted to the Planning Department for review within 30 calendar days of the project's operation to verify the level reported in the Hammett and Edison report dated May 22, 2019 and ensure FCC public exposure levels are not exceeded in any publicly accessible area. These measurements shall be taken again upon the addition or replacement of the antenna(s). In the event that RF emissions exceed FCC limits the subject Use Permit shall be suspended until such a time until compliance with FCC standards are demonstrated.

20. Applicant shall defend, indemnify, and hold harmless the County, its agents, officers, employees, and representatives from and against any claim, action, or proceeding, including any appeal or petition for review thereof, against the County and/or its agents, officers, employees, or representatives related to an approval of the Project, including, without limitation, any related application, permit, certification, condition, environmental determination, other approval, compliance, or failure to comply with applicable laws and regulations, and/or processing methods ("Challenge"). Applicant shall defend such Challenge with counsel approved by the County; or, alternatively, the County may, in its sole discretion, choose to defend such Challenge at Applicant's sole cost and expense. Applicant shall bear any and all losses, damages, injuries, liabilities, costs, and expenses, including without limitation, County staff time, County Counsel fees and attorney's fees of outside legal counsel, expert witness fees, and court costs arising out of or related to any Challenge ("Costs"), whether incurred by Applicant, the County, or awarded to any third party, and shall pay any Costs incurred by the County upon demand. No change or modification of the Project shall alter Applicant's indemnity obligations set forth herein. The County shall promptly notify Applicant of any Challenge(s) and shall cooperate fully in the defense of such Challenge(s).

Public Works

21. No proposed construction work within the County right-of-way shall begin until County requirements for the issuance of an encroachment permit, including review of the plans, have been met and an encroachment permit issued. Applicant shall contact a Department of Public Works Inspector 48 hours prior to commencing work in the right-of-way.

Cal-Fire

22. All alternative power sources shall have permanent signage, red in color, posted in a conspicuous place at the power source, or its main shut off. Such signage shall sate instructions on how to disconnect power feeding other electoral panels including any orderly shutdown requirements. Any other shutoffs shall be identified. Lettering shall be contrasting to the red background and be a minimum 1/2-inch tall and shall be permanently affixed.

LAR:cmc – LARDD0310_WCU.DOCX

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT B

Verizon Wireless • Proposed Small Cell (No. 483409 "Highlands Baywood Park 005")
1175 Parrott Drive • San Mateo County, California

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of Verizon Wireless, a personal wireless telecommunications carrier, to evaluate its small cell (No. 483409 "Highlands Baywood Park 005") proposed to be sited in San Mateo County, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Executive Summary

Verizon proposes to install a cylindrical antenna on the utility pole sited in the public right-of-way at 1175 Parrott Drive in San Mateo County. The proposed operation will comply with the FCC guidelines limiting public exposure to RF energy.

Prevailing Exposure Standard

The U.S. Congress requires that the Federal Communications Commission ("FCC") evaluate its actions for possible significant impact on the environment. A summary of the FCC's human exposure limits is shown in Figure 1. These limits apply for continuous exposures and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. The FCC limit for exposures of unlimited duration to radio frequency energy for various wireless services are as follows:

Wireless Service Band	Transmit Frequency	"Uncontrolled" Public Limit	Occupational Limit (5 times Public)
Microwave (point-to-point)	1–80 GHz	1.0 mW/cm^2	5.0 mW/cm^2
Millimeter-wave	24–47	1.0	5.0
Part 15 (WiFi & other unlicensed)	2–6	1.0	5.0
BRS (Broadband Radio)	2,490 MHz	1.0	5.0
WCS (Wireless Communication)	2,305	1.0	5.0
AWS (Advanced Wireless)	2,110	1.0	5.0
PCS (Personal Communication)	1,930	1.0	5.0
Cellular	869	0.58	2.9
SMR (Specialized Mobile Radio)	854	0.57	2.85
700 MHz	716	0.48	2.4
[most restrictive frequency range]	30–300	0.20	1.0

Power line frequencies (60 Hz) are well below the applicable range of this standard, and there is considered to be no compounding effect from simultaneous exposure to power line and radio frequency fields.

©2019

General Facility Requirements

Small cells typically consist of two distinct parts: the electronic transceivers (also called "radios") that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units. The transceivers are typically mounted on the support pole or placed in a cabinet at ground level. Because of the short wavelength of the frequencies assigned by the FCC for wireless services, the antennas require line-of-sight paths for their signals to propagate well and so are installed at some height above ground. The antennas are designed to concentrate their energy toward the horizon, with very little energy wasted toward the sky or the ground. This means that it is generally not possible for exposure conditions to approach the maximum permissible exposure limits without being physically in front of the antennas.

Computer Modeling Method

The FCC provides direction for determining compliance in its Office of Engineering and Technology Bulletin No. 65, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation," dated August 1997. Figure 2 describes the calculation methodologies, reflecting the facts that a directional antenna's radiation pattern is not fully formed at locations very close by (the "near-field" effect) and that at greater distances the power level from an energy source decreases with the square of the distance from it (the "inverse square law"). The conservative nature of this method for evaluating exposure conditions has been verified by numerous field tests.

Site and Facility Description

Based upon information provided by Verizon, including drawings by CommSense, dated February 2, 2018, it is proposed to install one Amphenol Model CUUT070X12F 4-foot tall, tri-directional cylindrical antenna, with two directions activated, on an extension above the top of the 37½-foot utility pole sited in the public right-of-way in front of the single-story residences located at 1163 and 1175 Parrott Drive in unincorporated San Mateo County, near the City of San Mateo. The antenna would employ no downtilt, would be mounted at an effective height of about 47 feet above ground, and would be orientated with its principal directions toward 35°T and 155°T. The maximum effective radiated power in any direction would be 2,370 watts, representing simultaneous operation at 1,890 watts for AWS and 480 watts for 700 MHz service. There are reported no other wireless telecommunications base stations at this site or nearby.

©2019

Study Results

For a person anywhere at ground, the maximum RF exposure level due to the proposed Verizon operation is calculated to be 0.011 mW/cm^2, which is 1.1% of the applicable public exposure limit. The maximum calculated level at the second-floor elevation of any nearby building is 0.49% of the public exposure limit. It should be noted that these results include several "worst-case" assumptions* and therefore are expected to overstate actual power density levels from the proposed operation.

Recommended Mitigation Measures

Due to its mounting location and height, the Verizon antenna would not be accessible to unauthorized persons, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, it is recommended that appropriate RF safety training, to include review of personal monitor use, be provided to all authorized personnel who have access to the antenna. No access within 8 feet at the same height as the antenna, such as might occur during certain maintenance activities at the top of the pole, should be allowed while the small cell is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. It is recommended that an explanatory sign† be posted at the antenna and/or on the pole below the antenna, readily visible to persons who might need to work within that distance.

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the small cell proposed by Verizon Wireless at 1175 Parrott Drive in San Mateo County, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating small cells. Training authorized personnel and posting explanatory signs are recommended to establish compliance with occupational exposure limits.

---

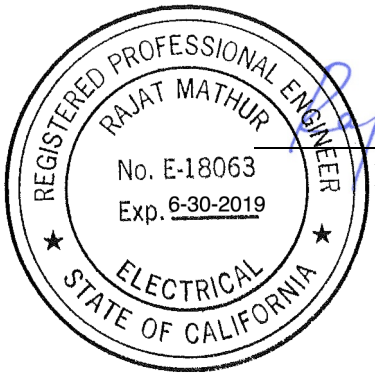
* This includes reflection and re-radiation from the surrounding environment, nearby metallic surfaces, and guy-wires.

† Signs should comply with OET-65 color, symbol, and content recommendations. Contact information should be provided (*e.g.*, a telephone number) to arrange for access to restricted areas. The selection of language(s) is not an engineering matter, and guidance from the landlord, local zoning or health authority, or appropriate professionals may be required. Signage may also need to comply with the requirements of California Public Utilities Commission General Order No. 95.

©2019

Authorship

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration No. E-18063, which expires on June 30, 2019. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.



Rajat Mathur, P.E.
707/996-5200

May 22, 2019

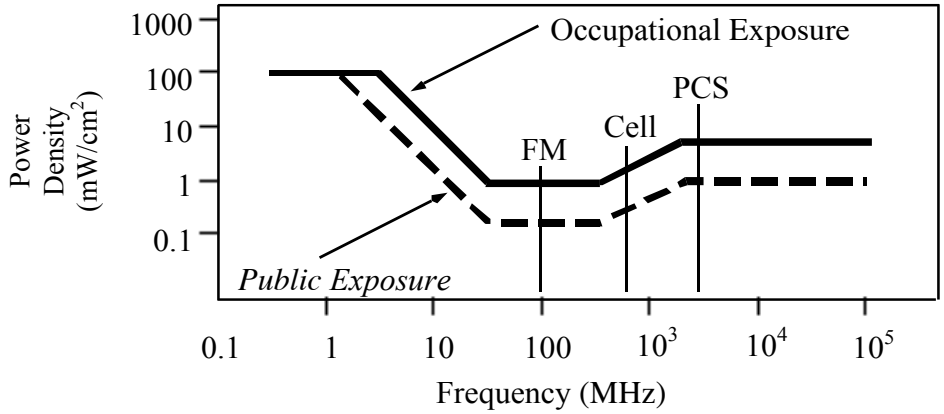
©2019

FCC Radio Frequency Protection Guide

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The FCC adopted the limits from Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," published in 1986 by the Congressionally chartered National Council on Radiation Protection and Measurements ("NCRP"). Separate limits apply for occupational and public exposure conditions, with the latter limits generally five times more restrictive. The more recent standard, developed by the Institute of Electrical and Electronics Engineers and approved as American National Standard ANSI/IEEE C95.1-2006, "Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," includes similar limits. These limits apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health.

As shown in the table and chart below, separate limits apply for occupational and public exposure conditions, with the latter limits (in *italics* and/or dashed) up to five times more restrictive:

Frequency	Electromagnetic Fields (f is frequency of emission in MHz)					
Applicable Range (MHz)	Electric Field Strength (V/m)		Magnetic Field Strength (A/m)		Equivalent Far-Field Power Density (mW/cm^2)	
0.3 – 1.34	614	*614*	1.63	*1.63*	100	*100*
1.34 – 3.0	614	*823.8/ f*	1.63	*2.19/ f*	100	*180/ f^2*
3.0 – 30	1842/ f	*823.8/ f*	4.89/ f	*2.19/ f*	900/ f^2	*180/ f^2*
30 – 300	61.4	*27.5*	0.163	*0.0729*	1.0	*0.2*
300 – 1,500	$3.54\sqrt{f}$	*$1.59\sqrt{f}$*	$\sqrt{f}/106$	*$\sqrt{f}/238$*	f/300	*f/1500*
1,500 – 100,000	137	*61.4*	0.364	*0.163*	5.0	*1.0*



Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits, and higher levels also are allowed for exposures to small areas, such that the spatially averaged levels do not exceed the limits. However, neither of these allowances is incorporated in the conservative calculation formulas in the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) for projecting field levels. Hammett & Edison has built those formulas into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radio sources. The program allows for the description of buildings and uneven terrain, if required to obtain more accurate projections.

©2019

RFR.CALC™ Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

The U.S. Congress required (1996 Telecom Act) the Federal Communications Commission ("FCC") to adopt a nationwide human exposure standard to ensure that its licensees do not, cumulatively, have a significant impact on the environment. The maximum permissible exposure limits adopted by the FCC (see Figure 1) apply for continuous exposures from all sources and are intended to provide a prudent margin of safety for all persons, regardless of age, gender, size, or health. Higher levels are allowed for short periods of time, such that total exposure levels averaged over six or thirty minutes, for occupational or public settings, respectively, do not exceed the limits.

Near Field.
Prediction methods have been developed for the near field zone of panel (directional) and whip (omnidirectional) antennas, typical at wireless telecommunications base stations, as well as dish (aperture) antennas, typically used for microwave links. The antenna patterns are not fully formed in the near field at these antennas, and the FCC Office of Engineering and Technology Bulletin No. 65 (August 1997) gives suitable formulas for calculating power density within such zones.

For a panel or whip antenna, power density $S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$, in mW/cm^2,

and for an aperture antenna, maximum power density $S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$, in mW/cm^2,

where θ_{BW} = half-power beamwidth of antenna, in degrees,
P_{net} = net power input to antenna, in watts,
D = distance from antenna, in meters,
h = aperture height of antenna, in meters, and
η = aperture efficiency (unitless, typically 0.5-0.8).

The factor of 0.1 in the numerators converts to the desired units of power density.

Far Field.
OET-65 gives this formula for calculating power density in the far field of an individual RF source:

power density $S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$, in mW/cm^2,

where ERP = total ERP (all polarizations), in kilowatts,
RFF = three-dimensional relative field factor toward point of calculation, and
D = distance from antenna effective height to point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 (1.6 x 1.6 = 2.56). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula is used in a computer program capable of calculating, at thousands of locations on an arbitrary grid, the total expected power density from any number of individual radio frequency sources. The program also allows for the inclusion of uneven terrain in the vicinity, as well as any number of nearby buildings, to obtain more accurate projections.

©2019

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT C

THE SAN MATEO HIGHLANDS COMMUNITY ASSOCATION
1851 Lexington Avenue, San Mateo, CA 94402
HighlandsCommunity.org

May 15, 2019
RE: PLN 2018-00079

Dear Supervisor Pine,

San Mateo Highlands residents join Baywood Park residents in strong opposition against Verizon's proposal to install a 5G cell phone antenna on a telephone pole in the front yard of one of our homes.

We appreciate your previous support in taking action to postpone the hearing on **PLN 2018-00079**. Unfortunately, we need to ask you to request a continuance due to our not being apprised of information from the applicant and the unaddressed need for resolution among local, state, and federal regulations. There is serious legislative conflict over this issue as well as a current legal appeal of County rules being preempted on the very regulations on which this proposal is being pushed along. There must not be a decision taken until there is a stable and consistent set of rules.

This application has implications throughout San Mateo County communities. Many San Mateo County citizens have expressed the salient concern that this case opens the floodgates to turn San Mateo County communities into antenna farms for private corporations. So in support of your efforts and ours, we are copying this to your colleagues on the Board of Supervisors.

There is no specific analysis in the Staff Report of regulatory conflicts between Local, State and Federal regulations, nor of the implications of current congressional efforts emanating here in San Mateo County for a legislative resolution.

Additional bases for postponement of this hearing are as follows:

1. We most certainly oppose the County staff unsubstantiated statement: "That this telecommunication facility *is* ***necessary for the public health, safety, convenience or welfare of the community***. (emphasis added). Do you stand behind this statement in the County Staff Report?

2. Major Fire Safety Issue not addressed in Staff Report. PG&E has repeatedly failed to ensure a safe environment as it relates to their equipment in our communities. Attaching a physically significant 5G cell phone antenna to a telephone pole increases the infrastructure danger to the public which is already at unacceptable levels. In addition to the very visible San Bruno disaster and wildfires in recent times, PG&E has not been able to explain four separate telephone pole fires that occurred within one month during the summer of 2018 in the Highlands neighborhood. This happened immediately after a PG&E inspection of the poles! Placing additional and sizable

industrial antenna on infrastructure whose reliability and safety has repeatedly been mis-represented through false records, as we now know has been the case in recent crises elsewhere in the state, is perilous. It also defies common sense.

PG&E has used bankruptcy to escape financial responsibility for lose of life and property. County staff report does not a provide an analysis of liability of either the applicant nor PG&E in the event of failures. Staff also does not provide a mechanism of who will pay in the event of lose of life or property in the event of safety failure. What is the County plan for these contingencies?

3. San Mateo County Planning should **not take action on proposal PLN 2018-00079** when there is pending national legislation, H.R. 530, by Congresswoman Anna Eshoo, as well as ongoing litigation in the 9th circuit court, that directly impacts Staff's conclusions on this 5G Verizon proposal. No decision should be made, when the conflict between local and Federal regulations is unsettled, unstable, and unresolved.

4. Congresswoman Anna G. Eshoo (CA-18) introduced H.R. 530, the *Accelerating Wireless Broadband Development by Empowering Local Communities Act of 2019*, legislation to overturn Federal Communications Commission (FCC) regulations limiting the ability of local governments to regulate the deployment of 5G wireless infrastructure.

5. Other bay area municipalities have suspended approval activities on these 5g towers pending clarification. What steps has San Mateo County taken in this regard?

"Both Mill Valley and San Rafael passed an emergency ordinance in September (2018) blocking the installation of 5G transmitters based on public fears of increased cancer risk and other health problems linked to proximity of wireless radiation.",

"The city council of Mill Valley,... voted unanimously late last week to effectively block deployments of small-cell 5G wireless towers in the city's residential areas. Through an urgency ordinance, which allows the city council to immediately enact regulations that affect the health and safety of the community, the restrictions and prohibitions will be put into force immediately for all future applications to site 5G telecommunications equipment in the city. Applications for commercial districts are permitted under the passed ordinance.", TechCrunch 2018

"Last week the Santa Cruz County Board of Supervisors adopted a resolution of support for House Resolution 530, introduced by Eshoo, D-Atherton, aimed at overturning Federal Communications Commission regulations that curtail the local control of permitting new cell towers and wireless transmitters"., Feb 11, 2019 Press Banner

6. Due process is not being followed consistently. Documents for Conditional approval from Department of Public Works and Cal-fire are not provided in the Staff Report. The names of state licensed personnel, especially engineers, who granted the conditional approvals based on safety for the public are missing.

7. The staff report does not properly verify and certify the safety, reliability, and private as well as government security. 5G Network security is a major, unresolved national issue.

8. Location of antenna violates SM County regulations. Less than 500 feet away from the

proposed location, there are 2 water towers on Tournament Dr. that comply with County regulations for antenna placement and are in direct range of this antenna. Location at the water tower would not culminate in a prohibition of the wireless facility. The report does not adequately analyze that such placement would not result in "effective prohibition". (see item 9 below)

The County has not made a valid or proven case for this faulty conclusion and representation to County citizens and taxpayers.

9. The Staff Report appears contrary to the San Mateo County Supervisor's letter of objection to the FCC rules to limit local control of placement of equipment. (SMC Letter to FCC, September 19, 2018). The County report contains mixed and contradictory messages that convey it is considering weakening the aesthetic standards in our wireless ordinance – rather than strengthening the standards applicable to other infrastructure. The FCC Declaratory Ruling and Third Report and Order, titled "*Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*" (the Order) acknowledges that some courts have read the preemption provisions as requiring evidence of a "coverage gap" or "an existing or complete inability to offer a telecommunications service." However, the Order rejects these alternative interpretations, reasoning that the "'effectively prohibit' language must have some meaning independent of the 'prohibit' language."

   The Order applies the "materially inhibits" standard to three types of non-fee requirements. Specifically, it addresses state and local laws imposing aesthetic requirements, undergrounding requirements (i.e., laws mandating that wireless infrastructure be deployed underground), and minimum spacing requirements (i.e., laws requiring wireless facilities be a certain minimum distance apart from each other).

   The Order articulates a three-part test for evaluating these restrictions. According to the Order, such requirements are not preempted if they are: "(1) reasonable, (2) no more burdensome than those applied to other types of infrastructure deployments, and (3) objective and published in advance."

10. FCC has said that aesthetic requirements aimed at "avoiding or remedying the intangible public harm of unsightly or out-of-character deployments" are permissible. (See FCC Summary at page 30:

    https://www.federalregister.gov/documents/2018/10/15/2018-22234/accelerating-wireless-and-wireline-broadband-deployment-by-removing-barriers-to-infrastructure

11. County Staff report has not addressed the proposal of this 5 story industrial antenna tower on Parrot Drive which is in a scenic corridor. The whole area is a mapped sensitive habitat, which is why it is RM zoned.

12. Where is the certification from 1.) The Applicant, Verizon and 2.) The County that the added equipment will not cause a Safety hazard to property and will not catch fire with the additional equipment?

    We must rely on San Mateo County to certify safety of any proposed installations that they issue a permit for. There have been many recent PG&E induced fires that have burned down complete communities, thus we must object to this application as so far presented to the communities. (Malibu 2007 fire caused by cell phone equipment). There is no certification in writing that the County will verify the equipment will cause no hazard to the location and surrounding and San Mateo County will be fully responsible for public safety with additional equipment on their poles.

This hearing, PLN 2018-00079 needs to be continued until local zoning regulations and FCC involvement is clarified. **The Planning Dept. Staff report on the Verizon 5G proposal points out how the proposal violates the SMC zoning regulations multiple times over.**

Please help us with accomplishing a continuance or postponement of this hearing and let us know as soon as possible today.

Please let us know what steps San Mateo County is taking to protect our residents from cell phone antenna installation that violates San Mateo County regulation. Has the Board joined other local government efforts with the 9th Circuit Court of Appeals and Congresswoman Anna Eshoo's legislative initiative?

Thank you for your assistance and prompt response to this issue.

Sincerely,

Liesje Nicolas

Liesje Nicolas
President, Highlands Community Association

Cc:
Supervisor David Canepa
Supervisor Carole Groom
Supervisor Don Horsley
Supervisor Warren Slocum

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT D

COUNTY OF SAN MATEO
BOARD OF SUPERVISORS

Board of Supervisors
Dave Pine, 1st District
Carole Groom, 2nd District
Don Horsley, 3rd District
Warren Slocum, 4th District
David J. Canepa, 5th District

County Goverment Center
400 County Center, 1st Floor
Redwood City, CA 94063
650-363-4653 T
650-599-1027 F
www.smcgov.org

September 19, 2018

VIA ELECTRONIC FILING
Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, D.C. 20554

Re: Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment – WC Docket No. 17-84 and WT Docket No. 17-79

Dear Secretary Dortch:

The Board of Supervisors of the County of San Mateo, California would like to express its strong opposition to several features of the Federal Communications Commission's (FCC) proposed Declaratory Ruling and Third Report and Order regarding state and local governance of small cell wireless infrastructure deployment. Although our County encompasses part of Silicon Valley and greatly supports the deployment of new and forthcoming telecommunications technology, including high-capacity 5G and related technologies, we oppose efforts that would limit necessary local discretion and public review as it pertains to the siting of new infrastructure in the public domain.

Several specific quotes from the ruling stand out to us as warranting a response.

First the proposal's stated purpose must be addressed:

> *Supporting the deployment of 5G and other next-generation wireless services through smart infrastructure policy is critical...5G can enable increased competition for a range of services—including broadband—support new healthcare and Internet of Things applications, speed the transition to life-saving connected car technologies, and create jobs.*

While the County of San Mateo agrees with this premise, we do not feel that it addresses the fact there is a significant digital divide that has a negative impact on the underserved. To address this need in San Mateo County, we invest a significant amount of time and public funds each year to provide free and high-speed Wi-Fi to the public. We believe that everyone, especially the underserved, much have equal access to the benefits of the Internet, such as increased educational opportunities, local economic development, and greater access to public services. Unfortunately, the FCC's proposal does little to address the digital divide. It contains no language to encourage or incentivize small cell providers to build in rural or underserved communities. Nothing in the

proposal enforces its promise that "97 percent of new deployments would be in rural and suburban communities that otherwise would be on the wrong side of the digital divide."

We are also concerned by some of the proposal's other assumptions:

> *...the addition of an antenna to an existing tower or other structure is unlikely to have a significant visual impact on the community. The size of Small Wireless Facilities poses little or no risk of adverse effects on the environment or historic preservation.*

The ruling itself defines a small wireless facility in Appendix A as having antennas up to three cubic feet in volume and related equipment up to 28 cubic feet in volume. This is not a "stealthy" size. Refrigerators listed as being 28 cubic feet in volume have a footprint of over 3' square and are over 5' tall. It is difficult to imagine an object with these dimensions not having a significant visual impact on a community. If a government agency prevents the illegal dumping of a refrigerator in a front yard due to concerns relating to the safety, cleanliness, and attractiveness of a community, it cannot then dismiss equipment of similar size as being unlikely to have significant visual impact.

Aesthetics aside, objects of this size absolutely pose environmental and historic preservation risk. It is impossible to imagine how strapping a refrigerator to a historic structure it was not designed to support would not be detrimental. Furthermore, the Commission's proposal designates *any* preexisting structure – regardless of its design or suitability for attaching wireless equipment – as eligible for the new, expedited 60-day shot clock. However, reviews of requests involving historic structures or environmentally sensitive areas would very likely necessitate more review than this shot clock allows for.

This is especially true given that, as the FCC's proposal itself points out:

> *...multiple authorizations may be required before a deployment is allowed to move forward. For instance, a locality may require a zoning permit, a building permit, an electrical permit, a road closure permit, and an architectural or engineering permit for an applicant to place, construct, or modify its proposed personal wireless service facilities. All of these permits are subject to Section 332's requirement to act within a reasonable period of time, and thus all are subject to the shot clocks we adopt or codify here.*

Local government authorizations and permits for any kind of construction work *must* be required. However, many local governments already operate with very limited resources compared to the amount of work they are expected to do. Arbitrary shot clocks fail to account for all the competing demands on a government's time and attention, potentially putting the needs of telecommunication companies before other critical services, such as public safety, health and human services, and housing. The proposal states, "Given the relatively low burden on state and local authorities of simply acting—one way or the other—within the Small Wireless Facility shot

clocks..." This sentence is dismissive of the legitimate concerns local governments have regarding this ruling. Furthermore, the FCC's answer to these concerns is insufficient:

> *...in cases where a siting authority misses the deadline, the opportunity to demonstrate exceptional circumstances provides an effective and flexible way for siting agencies to justify their inaction if genuinely warranted.*

Requiring agencies to spend additional time justifying their priorities only creates more work for these agencies, putting additional deadlines at risk. Forcing agencies to spend time crafting such justifications is a poor use of taxpayer money. It serves no purpose to improve services for constituents, does not actually increase the speed at which construction is authorized (if anything, it further slows the process by creating more paperwork), and seems to exist only as a punitive measure. The FCC claims that:

> *...any additional administrative burden from increasing the number of Section 332 shot clocks from two to four is outweighed by the likely significant benefit of regulatory certainty and the resulting streamlined deployment process.*

This is inaccurate, as the additional administrative burden does not enforce regulatory certainty or streamline processes; it forces employees to follow additional rules and regulations and potentially spend time justifying decision-making processes rather than performing actual work. This proposal also does not lessen the number of authorizations or permits required for any given construction; it simply mandates an arbitrary timeline. This is not streamlining a process; the process is unchanged. This is simply changing the timeline in a way that makes the process more difficult. We must also question who the recipients of this "significant benefit" are.

In addition, the FCC's proposed definition of "effective prohibition" is overly broad. The draft report and order proposes a definition of this particular term that invites challenges to long-standing local rights-of-way requirements unless they meet a subjective and unclear set of guidelines. While the Commission may have intended to preserve local review, this framing and definition of effective prohibition opens local governments to the likelihood of more, not less, conflict and litigation over requirements for aesthetics, spacing, and undergrounding.

We also believe that the FCC's proposed recurring fee structure represents an unreasonable overreach. Specifically, we disagree with the FCC's interpretation of "fair and reasonable compensation" as meaning approximately $270 per small cell site. Local governments share the Commission's goal of ensuring affordable broadband access for every American, regardless of their income level or address. That is why many local governments have worked to negotiate fair deals with wireless providers, which may exceed that number or provide additional benefits to the community. Additionally, the Commission has moved away from rate regulation in recent years, so

it would be inconsistent for the FCC to attempt to narrowly dictate the rates that can be charged by local governments.

Finally, we are concerned by the implications of the following paragraph:

> *A narrow reading of the scope of Section 332 would frustrate that purpose by allowing local governments to erect impediments to the deployment of personal wireless services facilities by using or creating other forms of authorizations outside of the scope of Section 332(c)(7)(B)(ii).363 This is especially true in jurisdictions requiring multi-departmental siting review or multiple authorizations.*

Local governments are categorically not seeking to "erect impediments" to the deployment of 5G. Like the County of San Mateo, most local governments wholeheartedly support the transition to 5G and understand the benefits increased deployment of small cell sites would have on its citizens. We simply do not agree that a federally-mandated, one-size-fits-all approach is the best way to accomplish this goal. San Mateo County would also like to see faster and consistent permitting, but we must balance these desires with other concerns, such as the management of streetscapes and providing for digital inclusion. We believe that only through collaboration and negotiation, not unilateral legislation, can everyone's needs be met. Carriers, local governments, and organizations like the National League of Cities and the International City/County Management Association should be granted authority to work together on true process improvement that benefit all.

Thank you for considering our association's views. If you have any questions or would like any additional information, please contact Connie Juarez-Diroll, Legislative Officer (650-599-1341, cjuarez-diroll@smcgov.org).

Sincerely,

Dave Pine
President, San Mateo County Board of Supervisors

cc: San Mateo County Board of Supervisors
County Manager's Office
Information Services Department

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT E

COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: May 16, 2019

TO: Zoning Hearing Officer

FROM: Planning Staff

SUBJECT: Consideration of a Use Permit, pursuant to Section 6500 of the San Mateo County Zoning Regulations, to install a new wireless telecommunication facility on an existing joint utility pole located in the public right-of-way in front of 1175 Parrott Drive in the unincorporated San Mateo Highlands area of San Mateo County. This item was continued from the November 15, 2018 Zoning Hearing Officer hearing to allow the public additional time to review the application.

County File Numbers: PLN 2018-00079 (Verizon Wireless/Modus)

PROPOSAL

The applicant proposes to install new wireless telecommunication facility on an existing joint utility pole located in the public right-of-way in front of 1175 Parrott Drive in the unincorporated San Mateo Highlands area. The new facility will consist of a 7-foot pole extension, one 4-foot tall cylindrical antenna, and ancillary pole mounted equipment boxes. The new facility will have an effective height of 48'-11" above grade where the maximum allowed height is 36 feet above grade. No grading or tree removal activities are proposed.

This item was continued from the November 15, 2018 Zoning Hearing Officer meeting to allow members of the public additional time to review the proposed project. In response to public comments received, the applicant has evaluated the feasibility of locating the proposed antenna below the existing powerlines to reduce the facility's overall height. The applicant has determined that such a location is not feasible due to inadequate clearance between the communication lines, powerlines, and the proposed antenna. Consequently, the applicant has elected to request a decision on their original proposal.

RECOMMENDATION

That the Zoning Hearing Officer approve the Use Permit, County File Number PLN 2018-00079, by making the required findings and adopting the conditions of approval listed in Attachment A.

BACKGROUND

Report Prepared By: Laura Richstone, Project Planner, 650/363-1829

Applicant: Verizon Wireless c/o Modus

Land Owner: San Mateo County Department of Public Works

Pole Owner: PG&E

Location: Public Right-of-Way in front of 1175 Parrott Drive

APN: Public Right-of-Way adjacent to 038-130-120

Existing Zoning: R-1/S-8 (Single-Family Residential/Minimum Lot Size 7,500 sq. ft.)

General Plan Designation: Medium Low Density Residential Urban

Flood Zone: Zone X (area of minimal flood risk); FEMA Panel No. 06081C 0165E; Effective October 16, 2012

Sphere of Influence: City of San Mateo

Existing Land Use: Utility Pole in the Public Right-of-Way

Environmental Evaluation: All projects are categorically exempt under the provisions of Class 3, Section 15303, of the California Environmental Quality Act (CEQA) Guidelines for the construction of a new small structure and the installation of small new equipment and facilities within a small structure.

Setting: The proposed project sites are located on existing utility poles in the public right-of-way (ROW) north of Highway 92 and east of Highway 280, in the unincorporated San Mateo Highlands area of San Mateo County. All proposed project sites are located in urbanized single-family residential neighborhoods.

Chronology:

Date		Action
April 11, 2018	-	Use Permit application submitted.
September 24, 2018	-	Application deemed complete.
November 15, 2018	-	Project continued from the Zoning Hearing Officer Public Hearing to allow additional time for public review.
February 21, 2019	-	Project continued from the Zoning Hearing Officer Public Hearing at the request of the applicant.
March 21, 2019	-	Project continued from the Zoning Hearing Officer Public Hearing to allow additional time for staff to respond to

subsequent materials submitted by the applicant in response to public comments.

May 16, 2019 - Zoning Hearing Officer Public Hearing.

DISCUSSION

A. KEY ISSUES

1. Compliance with the General Plan

Staff has determined that the proposed project complies with all applicable County General Plan policies, specifically:

Visual Quality Policies

Policy 4.21 (*Utility Structures*) requires minimizing adverse visual impacts generated by utility structures. The project site is located within the public right-of-way (ROW) along local roads in an urban single-family residential area. To reduce the visual impacts of the proposed project, the antenna and mounted equipment, located 48'-11" above grade, will be painted to match the existing utility pole and shall be constructed of non-reflective materials.

2. Compliance with the Zoning Regulations

The proposed project is located within the public ROW in the R-1/S-8 (San Mateo Highlands) Zoning Districts. Zoning District standards, with the exception of height are not applicable to projects located within the ROW.

The proposed project consists of a 7-foot pole extension, one cylindrical antenna (approximately 4 feet tall), and ancillary pole mounted equipment and will exceed the 36-foot height limit of the R-1/S-8 Zoning District. Classified as a public utility, the safe installation and maintenance of wireless facilities is controlled by the California Public Utilities Commission (CPUC). General Order No. 95 (GO95), mandated by the CPUC, requires a 6-foot vertical separation between all cellular antennas and the nearest adjacent power supply lines. With existing primary and secondary power supply lines located at the top of the pole and communication lines located in the middle, the applicant has proposed to extend the height of the utility pole using a pole extension bracket to achieve this 6-foot vertical safety separation. With an existing pole height of 38'-5" the proposed project would increase the effective height of the utility pole from 38'-5" to 48'-11" above grade (See Table 1) and exceed the maximum allowed height for new wireless facilities in order to comply with minimum safety separation standards mandated by the State (see below for further discussion regarding height).

Section 6512.2.I.2 (*Development and Design Standards for New Wireless Facilities That Are Not Co-Location Facilities*)

Section 6512.2.I.2 of the San Mateo County Zoning Regulations provides height allowances for utility infrastructure (i.e. wireless facilities) located in the right-of-way. The Section states that, in any Residential (R) District, no monopole or antenna shall exceed the maximum height for structures allowed in that district, except that new equipment on an existing facility in the public right-of-way shall be allowed to exceed the maximum height for structures allowed in that district by 10% or 5 feet, whichever is less. With a maximum district height of 36 feet, this provision would allow a maximum pole height of 39'-7". As outlined in the table below, the addition of the extension bracket coupled with the height of the antenna itself would add an average of 11 feet to the existing utility pole, result in an effective height of 48'-11" and would not adhere with the height limitations contained within Section 6512.2.I.2. In an effort to comply with both State safety standards and local height regulations the applicant provided an alternative pole analysis and a side arm mount analysis to determine the feasibility of locating the proposed equipment on a nearby pole or locating the equipment lower on the subject pole.

Table 1

Zoning District	Maximum District Height	Maximum Allowed Antenna Height	Existing Pole Height	Proposed Pole and Equipment Height
R-1/S-8	36'	39'-7"	37'-8"	48'-11"

Alternative Site Analysis

Verizon Wireless has identified this area of San Mateo Highlands as an area with marginal cellular coverage and has proposed a small wireless facility to improve cellular coverage, decrease dropped calls, and increase data capacity for the greater community and transient traffic by increasing signal propagation and unloading data traffic from the larger network. Small cell facilities typically cover a small geographic range (500-1,000-foot radius depending on topography) and must be located within, or in close proximity to identified target areas. In an effort to relocate the proposed project on adjacent nearby utility poles that would achieve the same level of service as the proposed utility pole and adhere both to the District's height regulations and State safety standards, the applicant performed an alternative utility pole analysis (Attachment E). The poles identified in this analysis either: (1) did not have adequate space to support the proposed equipment or; (2) the equipment would require extension brackets to comply with the GO95 and thus exceed the height criteria of Section 6512.2.I.2 (See Section 3.a. below for further discussion)

Side Arm Mount Analysis

The applicant also explored the feasibility of locating the proposed antenna between the secondary power and communication lines using a side arm mount in an effort to comply with State safety standards (GO95) and local height regulations. Submitted on March 5, 2019, the side mount analysis concluded that a side arm mount is not a feasible alternative for the proposed antenna.

From the top of the subject utility pole moving downwards, the existing pole consists of primary powerlines (38'-5" above grade) secondary power lines (32'-6") and communication lines (21'-11" and 20'-1"). As the overriding safety regulatory agency, the CPUC prohibits locating antennas between primary and secondary powerlines but does allow antennas to be located between the secondary powerlines and communication lines providing certain separation requirements are achieved. A minimum of 12-feet of clearance would be required to locate the proposed antenna between the secondary powerlines and communication lines. This 12-foot separation consists of: (1) a 6-foot separation from the bottom of the secondary powerlines to the top of the proposed antenna, (2) the proposed 4-foot antenna and (3) a 2-foot separation from the bottom of the antenna to the top of the communication lines. The current separation between the secondary power lines and the communication lines is only 8'-1" where 12 feet would be required to locate the antenna there per State safety standards.

Possible Relocation of Primary and Secondary Power Lines to Accommodate Side Arm Mount

As part of the feasibility analysis, the applicant evaluated the possibility of moving the secondary powerlines further up the pole and the communication lines further down the pole to create 12-feet of vertical clearance. PG&E requires a 6-foot minimum separation between the primary and secondary powerlines. With a current separation of 5'-11" the secondary powerlines cannot be moved further up the pole to provide more vertical spacing.

Possible Relocation of Communication Lines to Accommodate Side Arm Mount

The applicant also explored the possibility of shifting the communication lines farther down the pole in an effort to create the required 12-foot separation. Two separate communication lines (21'-11" and 20'-1" above grade) are located on the subject utility pole. Per CPUC regulations, communication lines shall be located a minimum of 18 feet above grade. Dropping the communication lines to 18 feet would only create a separation

of 10'-2" where 12 feet is required.[1] The applicant concluded that the side arm mount antenna is not physically feasible given the required separation requirements.

Imposition of the County's height regulations in conjunction with the requirements of GO95 would effectively prohibit the installation of a wireless facility in the identified service area due to the fact that: (1) no other feasible alternative sites were identified, (2) local jurisdictions cannot require wireless facilities to locate outside of the right-of-way, and (3) local jurisdictions cannot require providers to consider alternatives outside of the right-of-way. If additional height is not granted, the proposed project could not be placed on utility poles located in the target area and service could not effectively be extended to this area of San Mateo Highlands. When the application of the County's height criteria results in the effective prohibition of wireless facilities in an identified target area, local regulations (i.e., height in this case) are preempted by Federal law. In this instance, though the proposed project will exceed the height limit of the Zoning District, State (i.e., GO95) and Federal regulations supersede local regulations. Based on the foregoing, the applicant has requested that the proposed project be permitted to exceed the 36-foot height limitation to meet State (GO95) minimum safety requirements.

3. Compliance with the Wireless Telecommunication Facilities Ordinance

Staff has reviewed the project against the provisions of the Wireless Telecommunications Facilities (WTF) Ordinance and determined that the project complies with the applicable standards discussed below:

a. Development and Design Standards

Section 6512.2.A prohibits location in a Sensitive Habitat as defined by Policy 1.8 of the General Plan for facilities proposed outside the Coastal Zone.

The proposed project is not located in or near mapped sensitive habitats, as defined by Policy 1.8 of the General Plan.

Section 6512.2.B prohibits wireless facilities to be located in residential-zoned areas, unless the applicant demonstrates that no other site allows feasible or adequate capacity and coverage. Evidence shall include an alternative site analysis within 2.5 miles of the proposed facility.

The proposed facility will be located on existing joint utility pole in the public right-of-way within the R-1/S-8 Zoning District. As mentioned

[1] Communication lines have a tendency to sag from pole to pole. The calculation of moving the communication lines to 18 feet above grade does not account for this sag. As such, the communication line attachment to the pole could not feasibly be shifted down to 18 feet due to the sag in the lines.

previously, the proposed project employs small cell technology which requires sites to be placed closer to identified target areas than more traditional macro cell sites. Adopted before the advent of small cell technology, Section 6412.2.B the WTF Ordinance was written to limit the proliferation of macro cell towers in residential areas unless no other feasible alternative site existed. Recent State and Federal laws, however, have preempted many sections of the WTF Ordinance. For example, CPUC Section 7901 classifies wireless facilities as a public utility and grants wireless providers a state mandated right to place their facilities in the public right-of-way regardless of if the right-of-way is located in a residentially zoned area or not. In addition, other recent legal developments indicate that wireless providers are not required to consider alternatives outside of the right-of-way, nor prove the need for their facilities when they are located in the right-of-way. Consequently, the County's ability to request information demonstrating the need for the proposed facility in the public right-of-way is limited. As such, propagation maps and the 2.5-mile alternative site analyses were not required for this project in compliance with State law and recent legal rulings (see below for further discussion).

Section 6512.2.C C prohibits wireless telecommunication facilities to be located in areas where co-location on existing facilities would provide equivalent coverage with less environmental impact.

The small cell technology proposed by the applicant is the least environmentally impactful wireless technology currently available. As small cell technology requires sites to be located in close proximity to one another and closer to targeted service areas, co-locating small cell sites on macro cell towers (which are often located far outside service areas) is often infeasible. As local jurisdictions cannot require wireless providers to locate outside the right-of-way, a 2.5-mile radius alternatives map would not identify feasible alternative right-of-way locations to serve the identified target area. Instead, the applicant has identified and researched alternative utility pole sites within the required service area (Attachment E). These alternative utility poles could either not meet GO95 safety separation standards or would also require an extension bracket. As such, the applicant was unable to identify any existing wireless facilities or alternative poles that would allow an opportunity for co-location or provide the necessary coverage to the target area.

Section 6512.2.D requires wireless telecommunication facilities to be constructed so as to accommodate and be made available for co-location unless technologically infeasible.

Future co-locations are technically feasible as long as the proposed facility complies with GO95 engineering requirements. As a pole top

mounted facility cannot accommodate additional wireless facilities in a manner that complies with both PG&E and GO95 requirements, the applicant does not expect future co-locations given the present equipment configuration of the utility pole.

Sections 6512.2.E and F seek to minimize and mitigate visual impacts from public views by siting new facilities outside of public view, using natural vegetation for screening, painting equipment to blend with existing landscaping, and designing the facility to blend in with the surrounding environment.

The proposed facility includes a 4-foot cylindrical antenna attached to a 7-foot pole extension and ancillary equipment boxes mounted onto an existing joint utility pole. The equipment boxes will be located 7 to 18-feet above grade while the top of the antenna will be located 48'-11'' above grade. To mitigate the visual impact of the proposed project, the antenna and utility boxes shall be painted a non-reflective brown color to blend-in with the existing utility pole (Condition of Approval No. 4). No trees or vegetation are proposed for removal to accommodate the proposed project.

Section 6512.2.G requires that the exterior of wireless telecommunication facilities be constructed of non-reflective materials.

The proposed facility shall be constructed of non-reflective materials, and as stated in the section above, shall be painted a non-reflective light brown color to blend-in with the existing utility pole.

Section 6512.2.H requires that wireless telecommunication facilities comply with all the requirements of the underlying zoning district, including, but not limited to setbacks.

The existing utility pole is situated in the public right-of-way. As discussed in Section 2 above, zoning district standards (with the exception of height) are not applicable to wireless facilities located in the right-of-way.

Section 6512.2.I.2 requires that no new equipment located on existing facilities in the public right-of-way in any Residential (R) District shall be allowed to exceed the maximum height for structures allowed in that district by 10% of the height of the existing facility, or by 5 feet, whichever is less.

The maximum District height for wireless antennas is 36-feet in the R-1/S-8 Zoning District. Including the District height allowances contained in Section 6512.2.I.2 of the WTF Ordinance, the maximum height for wireless antennas is 39'-7". The proposed small cell site

would have a height of 48'-11" and exceed the maximum District height. The applicant has requested to exceed the maximum height to adhere to State safety regulations.

Classified as a public utility, wireless facilities are regulated by the CPUC. The CPUC, in conjunction with PG&E, have established spacing requirements for the safe installation and operation of equipment located on utility poles. For wireless facilities located on utility poles, CPUC General Order No. 95 (GO95), requires a 6-foot vertical safety separation between all wireless facilities and the nearest adjacent powerlines.

The applicant preformed a side arm mount analysis to explore the feasibility of locating the antenna lower on the utility pole in an effort to adhere to both local height regulations and State safety separation requirements. The analysis concluded that there is not enough room on the utility pole to locate the antenna below the secondary power lines. In addition, an alternative utility pole site analysis stated that the surrounding utility poles could either not support the equipment or would require a pole extension bracket exceeding the District height. When State mandated spacing requirements conflict with local standards, State regulations prevail.

Due to the fact that: (1) no other feasible alternative sites located in the public right-of-way were identified, (2) local jurisdictions cannot require wireless facilities to locate outside of the right-of-way, and (3) the antenna cannot be placed lower on the pole using a side arm mount, adherence to local height regulations would result in the effective prohibition of wireless facilities in the identified service area. When this occurs, Federal law preempts local regulations (i.e. the County's height criteria).

Section 6512.2.J seek to regulate the size, quantity, and location of accessory buildings required for wireless facilities located in any Residential (R) District.

No accessory buildings or ground floor equipment boxes are required for these projects. The equipment boxes necessary for these projects are small in size and will be mounted on the existing utility poles.

Section 6512.2.K requires the overall footprint of a facility to be as minimal as possible and not cover more than 15% in area of the lot or an area greater than 1,600 sq. ft. in residential districts.

No new ground structures will be built or utilized to support the operation of the proposed wireless telecommunication facility. All required utility boxes will be small in size and mounted between 7 to 18-feet above grade on the utility poles.

Section 6512.2.L prohibits diesel generators as emergency power sources unless electricity, natural gas, solar, wind or other renewable energy sources are not feasible.

No generators are proposed.

b. Performance Standards

The proposed project meets the required standards of Section 6512.3 (*Performance Standards for New Wireless Telecommunication Facilities that are Not Co-Location Facilities*) for lighting, licensing, provision of a permanent power source, timely removal of the facility, and visual resource protection. There is no lighting proposed, proper licenses will be obtained from both the Federal Communications Commission (FCC) and the CPUC, power for the facility will be provided by PG&E, visual impacts will be minimal, and the conditions of approval will require maintenance and/or removal of the facility when it is no longer in operation. Furthermore, road access to the proposed project sites is existing and no noise in excess of San Mateo County's Noise Ordinance will be produced.

4. Compliance with the Use Permit Findings

For the use permit to be approved by the Zoning Hearing Officer, the following findings must be made:

a. That the establishment, maintenance and/or conducting of the use will not, under the circumstances of this particular case, be detrimental to the public welfare or injurious to property or improvements in said neighborhood.

The FCC has established nationwide public exposure limits for radio frequency (RF) emissions. Federal law prohibits local jurisdictions from establishing their own RF emissions limits or regulating wireless facilities based on RF emissions so long as those facilities comply with emissions limits set by the FCC. As such, the WTF Ordinance does not identify its own RF emissions limits but does require wireless facility to maintain compliance with FCC limits.

The applicant submitted a radio frequency report prepared by EBI Consulting (EBI) (Attachment K) and an updated radio frequency report by Hammett & Edison Inc., dated January 10, 2019 (Attachment G). Though reports from both RF consulting firms confirm that the proposed facility will comply with the prevailing standards for limiting public exposure to radio frequency energy, they differ in their RF exposure estimations. The reports from EBI estimated that the facility would have a ground level RF exposure of 10.30% of the FCC's

maximum public exposure limits. However, the most updated report from Hammett & Edison estimated ground level RF exposures at 1.1% of the FCC's limits and second floor elevation RF exposure for the nearby two-story structures at 0.49% of the FCC's public exposure limits.

Table 2		
Planning Case No.	**Approximate Location**	**Radio Frequency Exposure at Ground Level**
PLN 2018-00079	1175 Parrott Drive	EBI Estimate: 10.30% Hammett & Edison Estimate: 1.1% ground; 0.49% second floor

When questioned about the discrepancy between the reports, Hammett & Edison stated that the EBI calculations were based on general information that did not account for the actual signal patterns of the antenna. Hammett & Edison stated that their analysis accounted for how the topography of the area would affect signal strength/propagation and the actual locations of the nearest buildings. Hammett & Edison's RF discrepancy statement can be found in Attachment L.

Though both the EBI and Hammett & Edison reports stated that the RF emissions from the proposed facility would comply with the FCC's maximum public exposure limits, the earlier reports from EBI noted that the facility would emit RF radiation that exceeds these limits along the upper 10-15 feet of the pole in close proximity to the antenna. However, these exposures occur roughly 37 to 49-feet above ground level, are not accessible to the general public, and dissipate quickly as one moves horizontally away from the antenna. Wireless facilities are considered to be out of compliance with FCC's rules and regulations if there are areas that exceed the FCC limits and if there are no RF hazard mitigation measures in place (i.e., warning signs). As recommended by the RF reports, the applicant will be required to post caution signs on the utility pole below the wireless facility (Condition of Approval No. 17) to bring this site into compliance with the FCC's rules and regulations.

Classified as a utility, wireless facilities are regulated by the CPUC. The CPUC provides design guidelines and standards for the installation, maintenance, and operation of wireless facilities located on utility poles to ensure the safe utilization of utility infrastructure. The CPUC has anticipated the installation of wireless facilities above power lines and GO95 includes rules and standards such as pole loads and separation requirements etc. to ensure such infrastructure is installed safely. Structural calculations performed by the applicant (Attachment H) illustrate that the proposed facility adheres to the safety requirements of GO95 while an independent analysis by PG&E concluded that the existing pole can support the proposed facility (i.e., a replacement pole is not required).

The proposed wireless facility will be unmanned and serviced twice a year by a Verizon technician with a pickup sized truck for no more than a couple of hours and does not require PG&E to de-energize the pole. Installation of the facility will require a bucket truck, will not require PG&E to shut off power to the surrounding neighborhood, and will require a traffic control plan (issued and approved by the Department of Public Works as part of an Encroachment Permit) to ensure that impact to neighborhood traffic is minimal. In addition, Condition of Approval No.16 requiring all non-emergency maintenance activities to occur outside of rush hour has been included to ensure minimal impacts to the surrounding community. As PG&E is responsible for all work on utility poles that occur above the power lines, the installation of the proposed facility will be carried out by PG&E personnel to ensure that the facility is adheres to safety standards and does not impact the existing power lines.

Located in the designated urban neighborhood of the San Mateo Highlands/Baywood Park the proposed project will close a gap in service identified by Verizon Wireless, provide increased data speeds and decrease the incidence of dropped calls for the surrounding community and transient traffic. Due to the project's adherence to the RF limitations set by the FCC, safety requirements of GO95, maintenance activities outlined by the applicant, and review and conditional approval by Cal-Fire, staff has determined that the installation and operation of the proposed project will not be detrimental to the public welfare, or injurious to property or improvements to the unincorporated San Mateo Highlands area of San Mateo County.

b. That this telecommunication facility is necessary for the public health, safety, convenience or welfare of the community.

Staff has determined that installation of a cellular facility at this location will allow for increased clarity, range, and capacity of the existing cellular network and will enhance services for the surrounding neighborhood, emergency services, public, and persons traveling through the area. As outlined above, the applicant explored the feasibility of utilizing a side arm mount to reduce the overall height of the proposed facility to comply with local height regulations and State safety regulations. Through this analysis, the applicant determined that there is inadequate space on the existing pole to allow for a side arm mounted facility.

The proposed facility is the least intrusive option available to expand Verizon Wireless's network capacity and service coverage in the San Mateo Highlands area. The proposed facility will use existing utility infrastructure and add small equipment without disturbing the overall single-family residential nature of the neighborhood.

5. Neighborhood Concerns

Concerns from several individuals have been received by the Planning Department regarding the proposed facility (See Attachment J). The major concerns raised by the neighborhood include: (1) the health effects of the proposed facility, (2) how to ensure that the facility will stay within the emissions limits that were projected in the RF report, (3) the unwanted noise associated with the proposed facility, (4) the facility's impact on property values, and (5) the ability (and structural integrity) of the pole itself to safely support the proposed facility. A brief response to these concerns are outlined below:

Potential Health Effects

Section 704 of the Federal Telecommunications Act of 1996 states that *no State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the* [Federal Communications] *Commission's regulations concerning such emissions*. As small cell facilities are designed to concentrate energy towards the horizon with little wasted towards the ground or sky, maximum RF exposure occurs when an individual is extremely close to the wireless antenna. Two RF reports were prepared for this project. Utilizing the most recent Hammett & Edison report which uses predictive modeling that accounts for topography of the area and signal propagation, the estimated ground level and second story RF emissions from the proposed are 1.1% and 0.49% respectfully, of the FCC's maximum exposure limits. These estimations account for the worst-case scenario and include the assumption that the Verizon equipment will always operate at maximum power, there will be large RF reflections from ground and nearby structures, and that there will be no signal attenuation from trees, buildings, or other objects. These assumptions generally result in overstated RF exposure levels that are 2-10 times greater than what is experienced in the field. Though some areas directly in front of the antenna (37-49 feet above grade) may exceed maximum exposure limits, wireless facilities are only considered out of compliance with FCC regulations if there are no RF hazard mitigation measures in place (i.e., signage, which this facility will have). The proposed facility complies with the prevailing standards for limiting public exposure to radio frequency energy. While many comments received sited studies related to RF exposure limits, unless and until such time that the FCC amends national RF emission standards, the proposed project is held to be in conformance with the existing FCC rules and regulations.

Noise

The proposed facility will draw power directly from the power lines located on the existing utility pole and will not require a generator or battery to operate or provide emergency power. Furthermore, the proposed antenna is a passive device cooled by natural air flow, does not require cooling fans, and thus does not emit noise. In addition, the construction and maintenance of the proposed facility will be regulated by the San Mateo County Noise Ordinance Code Section 4.88.360 (see Condition of Approval No.14).

Property Values

Concerns that small cell facilities located on top of utility poles would decrease the property values of the surrounding parcels were expressed by members of the public.

A project's potential impact (whether positive or negative) on surrounding property values is speculative, based on many factors, and is generally not considered when processing a planning permit. Numerous variables contribute to the value of a property and establishing a direct causal link (beyond anecdotal evidence) between a proposed project and decreased property values is difficult. As no third party independently verified studies have been submitted that prove that small cell facilities cause a direct and substantial decrease in property values, the Planning Department is not in the position to evaluate this claim.

In response to these concerns, the applicant provided a copy of a third-party study conducted by the Joint Venture of Silicone Valley[2] (Attachment I). This 2012 study explored this issue and found that proximity to a wireless facility had no apparent impact on property values. The study identified 70 different types of wireless facilities (including cell towers, mono-pines, mono-poles, and rooftop mounted equipment etc.), located in Palo Alto, Redwood City, Saratoga, and San Jose and evaluated the "list" and "sale" price of all home transactions located within a 1-mile radius of the identified cellular facilities. The study evaluated over 1,600 single-family home transactions and found that homes located within a 1-mile radius from existing wireless facilities sold for 99% to 106% of their listing price and concluded that the relationship between the list and sale price of a home remained the same across multiple cities regardless of their proximity to a cell site.

Structural Integrity of the Facility/Safety Concerns

Public comments raised a concern that the placement of the facility above the power lines will add stress and strain to the existing utility pole

[2] Joint Venture of Silicon Valley is a non-profit independent third party that brings together local business, community activists, local governments, academia, labor, and the broader community to address community and regional issues and work toward solutions.

and pose a safety risk for residents and those who utilize the roadway below.

This design was reviewed by Verizon Wireless' RF and structural engineers to ensure its structural integrity. Per GO95, the applicant has also performed structural calculations to ensure that the proposed pole can support the equipment and that the equipment itself would be structurally sound. The proposed project was also reviewed by PG&E prior to submittal for local permits. PG&E's review process consists of: (1) pre-site walk to inspect the condition of the pole and its existing equipment, (2) preforming their own internal structural calculations on the existing pole to determine if the pole is structurally sound and if it can support the new proposed equipment, and (3) a post installation site inspection to ensure that the equipment was installed and attached per the plans and PG&E standards. PG&E has reviewed the project utility pole and has determined that the existing pole can safely support the proposed wireless facility.

Potential Fire and Safety Hazard

Community members stated that installing infrastructure above powerlines poses a fire risk due to the possibility of the wireless structure falling onto active electrical lines.

Located in a Very High fire severity SRA (State Responsibility Area), Cal-Fire is the reviewing fire agency for the San Mateo Highlands. Cal-Fire has reviewed these plans for safety, potential fire hazards, and adherence to applicable fire codes and has conditionally approved the project.

Classified as a utility, many of the regulations regarding the safe operation and installation of wireless facilities are regulated by the CPUC. Installation of wireless facilities above existing powerlines has been anticipated by the CPUC and regulations relating to the design, installation, maintenance, and operation of such facilities can be found in CPUC's General Order 95 (GO95). Safety requirements found within GO95 includes rules and standards for utility pole loads (i.e., the weight and stress on utility poles from attachments) and separation requirements between equipment, powerlines, and communications lines. Under GO95, applicants perform their own pole loading calculations (which includes wind load, pole strength, pole overturn calculations, etc.) prior to placing attachments on utility poles in order to ensure that the pole continues to meet the required safety standards. These calculations have been performed by the applicant and show that the proposed project adheres to the safety requirements of GO95 (Attachment H).

The CPUC has stated that wireless carriers have a state-mandated right to locate infrastructure in the right-of-way (PUC Section 7901) regardless of whether that infrastructure is located in a residential or high fire area. While it is the responsibility of the CPUC to address the engineering and

safety concerns of wireless facilities installed above utility lines (i.e., General Order 95), the County-through the issuance or denial of the subject use permit-determines if the proposed land use of the wireless facility adheres to the applicable portions of the Wireless Telecommunication Facilities Ordinance. The applicant has shown that the facility cannot be located below the primary powerlines and that the subsequent pole extension and antenna adhere to the engineering and safety requirements of GO95.

Maintenance and Installation Hazard

Community members were concerned that the installation and maintenance of the proposed facility would require frequent and prolonged power outages, interrupt service to the surrounding community, and cause traffic delays.

Located in the right-of-way, the proposed project will require an encroachment permit from the Department of Public Works (Condition of Approval No. 19). A traffic control plan will be required as part of the encroachment permit process. This plan will be reviewed by the Department of Public Works to ensure that though traffic is not unduly impacted by construction activities and to ensure that traffic control measures such as signs, flags, and traffic controllers are present. Condition of Approval No. 16, which requires routine maintenance activities to occur during non-peak commute hours, has been added to minimize any traffic impact that may arise during the life of the proposed project.

The applicant has stated that: (1) installation of the facility is typically completed within one day, (2) the facility would require twice yearly maintenance, and (3) a bucket truck would be used in both instances. In both cases, neither the installation nor maintenance of the facility would require PG&E to de-energize the pole. During installation activities, power to the pole will not be interrupted and PG&E will be present to perform all work above the power lines. The facility will be placed on its own meter and an emergency shut off switch will be installed to that the facility's power can be shut off without affecting power to the pole or surrounding neighborhood. Anticipated maintenance activities will most likely be associated with equipment failure or a power outage. In the case of a power outage, one pickup sized truck would visit the site to ensure the equipment is functioning properly. For both maintenance and replacement activities, the applicant estimates that the truck would not be on-site for more than 2-3 hours.

B. ENVIRONMENTAL REVIEW

The project is categorically exempt pursuant to Section 15303, Class 3, of the California Environmental Quality Act (CEQA) related to the construction of a new, small structure and installation of small new equipment and a facility in a small structure.

C. REVIEWING AGENCIES

Department of Public Works
Cal-Fire

ATTACHMENTS

A. Recommended Findings and Conditions of Approval
B. Vicinity Map
C. Project Plans
D. Photo Simulations
E. Alternative Pole Analysis
F. Side Arm Feasibility Analysis
G. Updated Radio Frequency Report, prepared by Hammett & Edison, dated January 10, 2019
H. Structural Calculations
I. Joint Venture Property Value Study
J. Public Correspondence
K. Previous EBI Consulting RF report
L. Hammett & Edison RF Discrepancy Statement
M. PG&E Authorization Letter, Certificate of Public Convenience, NCJPA Membership Status

LAR:cmc: - LARDD0159_WCU.DOCX