COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: January 21, 2021

TO: Zoning Hearing Officer

FROM: Planning Staff

SUBJECT: Consideration of a Use Permit renewal, pursuant to Section 6512.6 of the San Mateo County Zoning Regulations, to allow the continued operation of a wireless telecommunication facility operated by Sprint, located at 78 Pilarcitos Creek Road in the unincorporated rural Midcoast area of San Mateo County.

County File Numbers: PLN 2001-00286 (Sprint)

PROPOSAL

The project applicant, Jason Osborne of Beacon Development, LLC, proposes on behalf of Global Signal Acquisitions III, LLC (Crown Castle) to renew a Use Permit to allow the continued operation of a wireless telecommunication facility operated by Sprint, located at 78 Pilarcitos Creek Road in the unincorporated rural Midcoast area of San Mateo County.

The existing wireless telecommunication facility consists of one 13-feet and 2-inch tall monopole, with Sprint panel antennas located at 19 feet high. Associated equipment for the wireless telecommunication facility is located adjacent to the monopole. Aside from the monopole, the entire ground equipment area is fenced off with chain link fencing. No physical changes are proposed to the facility under this renewal.

RECOMMENDATION

That the Zoning Hearing Officer approve the Use Permit renewal, County File No. PLN 2001-00286, by making the required findings and adopting the conditions of approval listed in Attachment A.

BACKGROUND

Report Prepared By: Lawrence Truong, Project Planner; lktruong@smcgov.org

Applicant: Jason Osborne of Beacon Development, LLC for Global Signal Acquisitions III, LLC (Crown Castle)

Owner: Daniel Sare

Location: 78 Pilarcitos Creek Road, Half Moon Bay (Rural Midcoast)

APN: 056-380-110

Parcel Size: 196 acres

Existing Zoning: PAD/CD (Planned Agriculture District/Coastal Development)

General Plan/Local Coastal Program Designation: Agriculture

Sphere of Influence: None

Existing Land Use: Wireless telecommunication facility; other areas of the property support agriculture and a single-family residential development.

Water Supply: N/A

Sewage Disposal: N/A

Flood Zone: Zone X (Areas of Minimal Flood Hazard); Community Panel No. 06081C0260E; effective date October 16, 2012.

Environmental Evaluation: The project is categorically exempt pursuant to Section 15301, Class 1, of the California Environmental Quality Act (CEQA) Guidelines for the continued operation of existing public or private facilities involving no physical changes or expansion of use.

Setting: The subject parcel is approximately 196 acres in size and is located adjacent to undeveloped parcels to the north and west, a cemetery to the east, and Highway 92 to the south. Access to the parcel is via Highway 92 and Pilarcitos Creek Road. The property mainly consists of trees and vegetation and supports ongoing agriculture and a single-family residence in addition to the existing wireless telecommunication facilities. The existing wireless telecommunication facility only consists of one carrier, Sprint. The surrounding area consists of undeveloped parcels, varied topography, vegetation, and trees.

Chronology:

Date	Action
December 23, 2019	Received application for Use Permit renewal for Planning case number PLN 2001-00286 (Sprint) with no amendments proposed.

November 23, 2020 Project deemed complete.

January 21, 2021 Zoning Hearing Officer public hearing.

DISCUSSION

A. KEY ISSUES

1. Conformance with the General Plan

The project continues to conform with the applicable General Plan policies for Visual Quality and Land Use as no physical changes to the existing permitted facility are proposed.

2. Conformance with Zoning Regulations

The project site is located within the Planned Agriculture District/Coastal Development (PAD/CD) Zoning District. Wireless telecommunications facilities are allowed in any zoning district pursuant to a Use Permit, which this facility seeks to continue operating under; no physical changes are proposed.

3. Conformance with Wireless Telecommunication Facilities Ordinance

Staff has determined that the project complies with the applicable standards of the Wireless Telecommunication Facilities (WTF) Ordinance, as discussed below:

a. *Development and Design Standards*

Section 6512.2.E – G seek to minimize and mitigate visual impacts from public views by designing facilities to blend in with the surrounding environment, painting equipment to blend with the surrounding environment and/or buildings, and requiring facilities to be constructed of non-reflective materials.

The existing facility blends in with the surrounding environment and is constructed of non-reflective materials. No physical changes to the facilities are proposed.

Section 6512.2.H and I require facilities to comply with all requirements of the underlying zoning district; except for the allowance that towers can exceed the height limit for the zoning district provided in no case shall a tower exceed 150 feet.

No physical changes are proposed to the existing permitted facility, including no changes proposed to the maximum permitted tower height limit of 13-feet and 2-inches.

b. *Performance Standards*

The project meets the required performance standards of Section 6512.3 for lighting, licensing, provision of a permanent power source, timely removal of the facilities, and visual resource protection. No physical changes to the facility are proposed, the facility operates under licenses issued from both the Federal Communications Commission (FCC) and the California Public Utilities Commission (CPUC), power for the facility will continue to be provided by PG&E, visual impacts will continue to be minimal, and conditions of approval will require maintenance and/or removal of the facility when it is no longer in operation.

c. *Application Requirements*

Section 6512.5.B(10) requires projects that are capable of accommodating additional facilities to provide a ten-year buildout plan.

Although the project site can accommodate additional facilities, the applicant is not aware of any plans for expansion or additional co-locations at the project site within the next ten years. No physical changes to the facility are proposed under the subject project.

d. *Use Permit Term, Renewal and Expiration*

Section 6512.6 allows an applicant to file for a renewal of the use permit and pay the applicable renewal application fees 6 months prior to expiration with the County Planning and Building Department, if continuation of the use is desired.

The applicant is renewing the Use Permit - Planning case number PLN 2001-00286 (Sprint), with no physical changes proposed. The applicant has provided the standard information and application fees required for a Use Permit renewal.

4. Conformance with Use Permit Findings

In order to approve the subject Use Permit renewal, the Zoning Hearing Officer must make the following findings:

a. *That the establishment, maintenance and/or conducting of the use will not, under the circumstances of the particular case, result in a*

significant adverse impact to coastal resources, or be detrimental to the public welfare or injurious to property or improvements in the neighborhood.

The telecommunication facility is located in a rural unincorporated area of San Mateo County, which minimizes impacts to surrounding residences and businesses. With regard to visual impacts, the tower and antennas look similar to other telephone pole/utility structures in the area. Continued operation of the facility will not result in adverse impacts to coastal resources as no physical changes to the facility are proposed.

A radio frequency (RF) report prepared by Michael Fischer, a licensed electrical engineer, (Attachment F) confirms that Crown Castle will be compliant with the Federal Communications Commission (FCC) Rules and Regulations, as described in Office of Engineering and Technology Bulletin 65, upon implementation of additional RF alert signage based on theoretical analysis of Maximum Permissible Exposure levels. Where applicable, barriers can consist of locked doors, fencing, railing, rope, chain, paint striping or tape, combined with RF alert signage.

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

Staff has determined that continued operation and maintenance of the existing cellular facility at this location will allow for continued cellular communication coverage for private citizens and public agencies. This facility has been in existence for over ten years. Community members, business persons, and residents have come to rely on coverage provided by these sites to facilitate daily conversation and to provide assistance in emergency situations. Furthermore, no physical change to the facility is proposed.

5. Conformance with Conditions of Last Use Permit Approvals

Staff has reviewed the previous Use Permit conditions of approval for Sprint (PLN 2001-00286), last approved May 7, 2009, and have determined that the commercial carrier is in compliance with all previous conditions, see Attachment E. No physical changes are proposed as part of the renewal. Previous conditions that remain relevant, along with new conditions, are included in Attachment A of this staff report.

B. ENVIRONMENTAL REVIEW

The project is categorically exempt pursuant to Section 15301, Class 1, of the CEQA Guidelines for the continued operation of existing public or private facilities involving no alterations or expansion of use as no physical changes are proposed.

C. REVIEWING AGENCIES

Building Inspection Section
Coastside Fire Protection District

ATTACHMENTS

A. Recommended Findings and Conditions of Approval
B. Location Map
C. Project Plans
D. Photos of Existing Wireless Telecommunication Facility
E. Sprint (PLN 2001-00286) Decision Letter, dated May 8, 2009
F. Radio Frequency Emissions Compliance Report for Crown Castle, dated December 17, 2020

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COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT A

Attachment A

County of San Mateo
Planning and Building Department

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2001-00286 Hearing Date: January 21, 2021

Prepared By: Lawrence Truong, Project Planner For Adoption By: Zoning Hearing Officer

RECOMMENDED FINDINGS

For the Environmental Review, Find:

1. That the project is categorically exempt pursuant to Section 15301, Class 1, of the CEQA Guidelines for the continued operation of existing public or private facilities involving no physical changes and no expansion of use.

Regarding the Use Permit, Find:

2. That the establishment, maintenance and/or conducting of the use will not, under the circumstances of the particular case, result in a significant adverse impact to coastal resources, or be detrimental to the public welfare or injurious to the property or improvements in said neighborhood because the facility meets current Federal Communications Commission (FCC) standards and has been conditioned to maintain valid FCC and California Public Utilities Commission (CPUC) licenses. The telecommunication facility is located in a rural area of San Mateo County, which minimizes impacts to surrounding residences and businesses. With regard to visual impacts, the tower and antennas look similar to other telephone pole/utility structures in the area. No physical changes to the facility are proposed. Furthermore, the RF report confirms the telecommunication facility does not exceed the Federal Communications Commission (FCC) General Population limits, and thus does not cause significant impact to the environment.

3. That the wireless telecommunication facility is necessary for the public health, safety, convenience or welfare since it provides cellular coverage in the area for both public and private users who have come to rely on coverage provided by the facility for daily conversation and to provide assistance in emergency situations.

RECOMMENDED CONDITIONS OF APPROVAL

Current Planning Section

1. This approval applies only to the proposal, documents, and plans described in this report and materials approved by the Zoning Hearing Officer on January 21, 2021. The Community Development Director may approve minor revisions or modifications to the project if they are consistent with the intent of and in substantial conformance with this approval.

2. This permit shall be valid until January 21, 2031, ten (10) years from the date of approval. Renewal of this permit shall be applied for six (6) months prior to expiration to the Planning and Building Department and shall be accompanied by the renewal application and fees applicable at that time.

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

4. If a less visually obtrusive/reduced antenna technology becomes available for use during the life of this project, the applicant shall present a redesign incorporating this technology into the project for review by the Community Development Director and any parties that have expressed an interest.

5. The applicant shall maintain all necessary licenses and registrations from the Federal Communications Commission (FCC) and any other applicable regulatory bodies for the operation of the subject facility at this site. The applicant shall supply the Planning Department with evidence of such licenses and registrations. If any required license is ever revoked, the applicant shall inform the Planning Department of the revocation within ten (10) days of receiving notice of such revocation.

6. This facility and all equipment associated with it shall be removed in its entirety by the applicant within ninety (90) days if the FCC license and registration are revoked or if the facility is abandoned or no longer needed. The owner and/or operator of the facility shall notify the Planning Department upon abandonment of the facility.

7. There shall be no external lighting associated with this use. Wireless telecommunication facilities shall not be lighted or marked unless required by the FCC or Federal Aviation Administration (FAA).

8. 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.

9. The applicant shall be responsible for painting and/or maintaining the antennas, monopole, and equipment cabinets in the originally approved and painted gray-green color; finishes shall be non-reflective. Any proposal to change the color shall be reviewed and approved by the Planning Department prior to painting.

10. The fence shall be maintained in good condition and graffiti free, and any graffiti or damage to the fence shall be promptly repainted and/or repaired using the same material and/or forest green color to match the appearance of the existing fence.

11. This permit does not authorize the removal of any trees. Any tree removal will require a separate permit prior to removal.

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

13. Within 10 days of final approval of this renewal, the applicant shall install/maintain all necessary RF alert signage to ensure continued compliance with the FCC Rules and Regulations.

Building Inspection Section

14. The applicant shall obtain a building permit prior to any modifications or new construction.

Coastside Fire Protection District

15. The access road shall be maintained in compliance with fire standards, including filling in of pot holes and adequate compaction.

16. Provide and maintain remote addressing for the facility.

17. All fire extinguishers at the facility shall maintain current tags.

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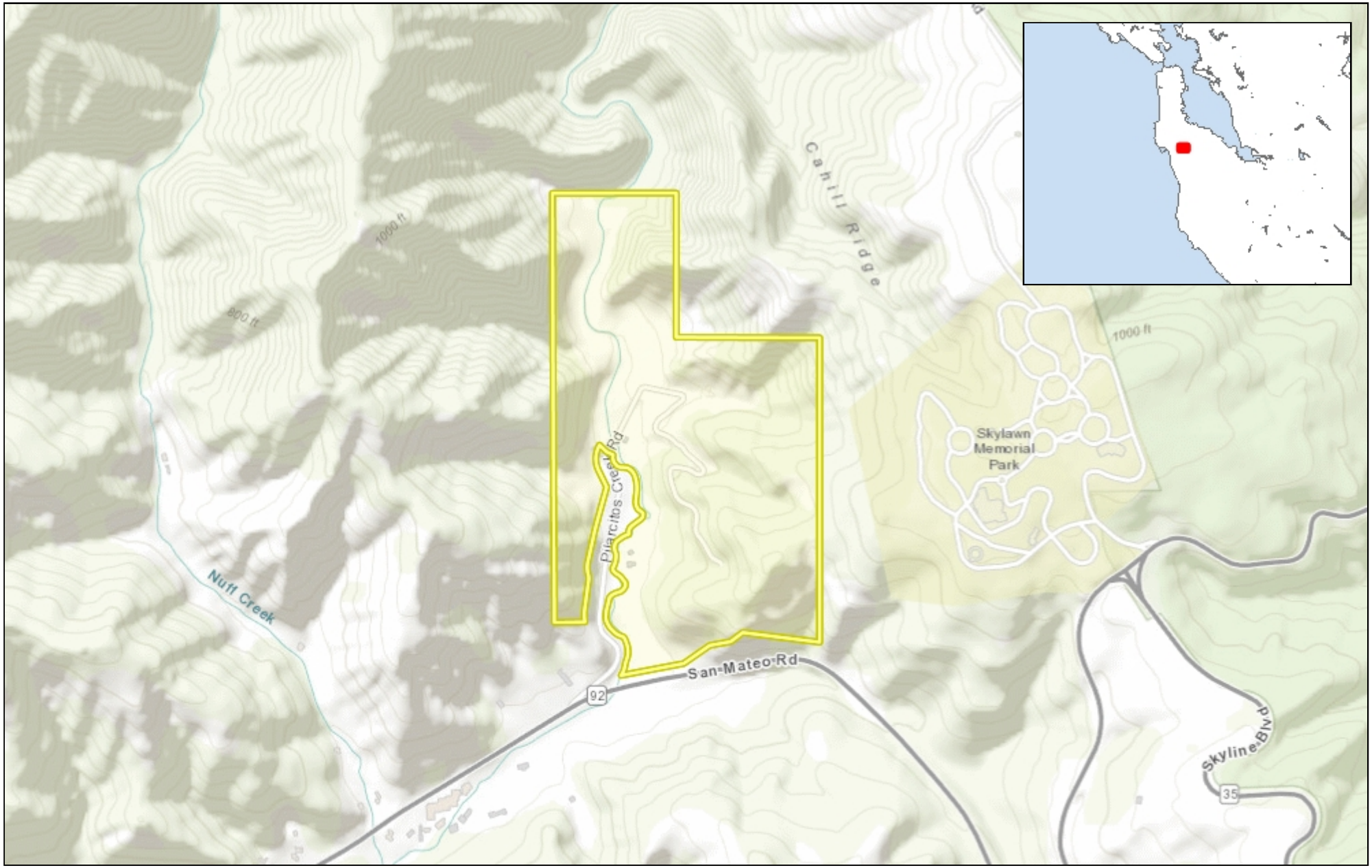
COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT B

San Mateo County

County San Mateo, CA



0.57 0 0.28 0.57 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

1: 18,056

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT C

SITE NUMBER: 877212
SITE NAME: CLEO SARE PROPERTY
SITE TYPE: MONOPOLE
TOWER HEIGHT: 19'-0"

ADDRESS: END OF PILARCITOS RD, HALF MOON BAY, CA 94019
COUNTY: SAN MATEO
JURISDICTION: CITY OF SAN METEO

PROJECT SUMMARY:

SITE ADDRESS:
END OF PILARCITOS RD.
HALF MOON BAY, CA 94019

PROPERTY OWNER:
DANIEL C. SARE
78 PILARCITOS CREEK ROAD
HALF MOON BAY, CA 94019

TOWER OWNER:
CROWN CASTLE
1 PARK PLACE, SUITE 300
DUBLIN, CA 84568

BUILDING SUMMARY:

OCCUPANCY CLASSIFICATION:	U
TYPE OF CONSTRUCTION:	TYPE V-B
ZONING:	PQP - PUBLIC/QUASI PUBLIC DISTRICTS
AREA OF CONSTRUCTION:	20' x 23' = 42.73 SQ. FT.
ASSESSORS PARCEL NUMBER:	056-380-110
LATITUDE:	37° 49' 55.56" N.
LONGITUDE:	122° 38' 04.17" W.

SHEET INDEX:

PROJECT DESCRIPTION:

CROWN CASTLE IS PROPOSING THE RENEWAL OF THE CONDITIONS OF APPROVAL FOR THE FOLLOWING:

- EXISTING 19'-0" TALL MONOPOLE
- EXISTING 20'X23'X7' TALL CHAIN LINK FENCE COMPOUND
- EXISTING (2) EQUIPMENT SHELTER
- ALL ASSOCIATED UTILITIES, TRANSFORMERS, TRENCHING, ETC.

CONSULTING TEAM:

ARCHITECT/ENGINEER:
WSD ENGINEERING, INC.
2155 LAS POSITAS COURT, SUITE M
LIVERMORE, CA 94551

SITE ACQUISITION
BEACON DEVELOPMENT, LLC.
3 ROVLNA LANE
PETALUMA, CA 94952
CONTACT: JASON F. OSBORNE
PHONE: (415) 529-8868
EMAIL: jason@beacondev.net

ZONING MANAGER:
BEACON DEVELOPMENT, LLC.
3 ROVLNA LANE
PETALUMA, CA 94952
CONTACT: JASON F. OSBORNE
PHONE: (415) 529-8868
EMAIL: jason@beacondev.net

CONSTRUCTION MANAGER:
WEST AREA - SERVICE
CROWN CASTLE
1 PARK PLACE, SUITE 300
DUBLIN, CA 84568
CONTACT: JASON S. KIDD
CONSTRUCTION MANAGER - WEST AREA SFO
TOWER DEVELOPMENT & STRATEGIC RELOCATIONS
PHONE: (707) 567-6994
EMAIL: jason.kidd@crowncastle.com

APPLICANT/LESSEE:
CROWN CASTLE
1 PARK PLACE, SUITE 300
DUBLIN, CA 84568

APPROVALS:

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL CONSTRUCTION DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND ANY CHANGES AND MODIFICATIONS THEY MAY IMPOSE.

	PRINT NAME	SIGNATURE	DATE
PROJ. MANAGER			
CONST. PM.			
RF ENGINEER			
SAC REP.			
PLAN. CONSULTANT			
PROP. OWNER			
CROWN CASTLE REP.			

APPLICABLE CODES:

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

1. INTERNATIONAL BUILDING CODE (2015 IBC)
2. TIA-EIA-222-G OR LATEST EDITION
3. NFPA 780 - LIGHTNING PROTECTION CODE
4. 2017 NATIONAL ELECTRIC CODE OR LATEST EDITION
5. ANY OTHER NATIONAL OR LOCAL APPLICABLE CODES, MOST RECENT EDITIONS
6. CALIFORNIA CODE OF REGULATIONS
7. 2016 CALIFORNIA BUILDING CODE
8. 2016 CALIFORNIA MECHANICAL CODE
9. 2016 CALIFORNIA PLUMBING CODE
10. 2016 CALIFORNIA ELECTRICAL CODE
11. LOCAL AMENDMENTS TO THE ABOVE, WHERE APPLICABLE
12. CITY/COUNTY ORDINANCES
13. LIFE SAFETY CODE NFPA-101

811 Know what's below. Call before you dig. www.call811.com

CROWN CASTLE

PROJECT INFORMATION:
877212
CLEO SARE PROPERTY
END OF PILARCITOS RD,
HALF MOON BAY, CA 94019

CURRENT ISSUE DATE:
10/2/19

ISSUED FOR:
90% ZONING DRAWINGS

REV.:	DATE:	DESCRIPTION:	BY:
A	10/2/19	90% ZONING DRAWING	SJS

PROJECT ARCHITECT/ENGINEER:
WSD Engineering, Inc.
DBA WSD Construction Inc.
2155 LAS POSITAS COURT, SUITE M
LIVERMORE, CA 94551

CONSULTANT:
BEACON DEVELOPMENT, LLC
3 ROVLNA LANE
PETALUMA, CA 94952

DRAWN BY:	CHK.:	APV.:
SJS	MIF	DM

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SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
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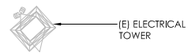

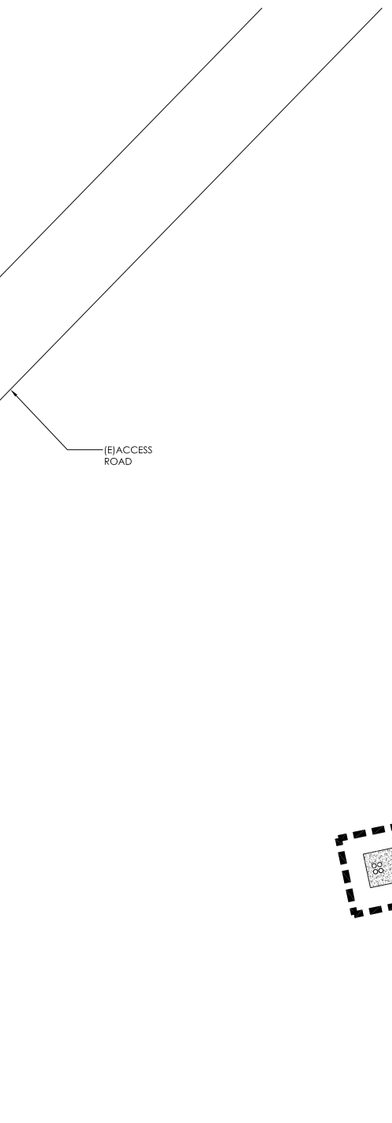

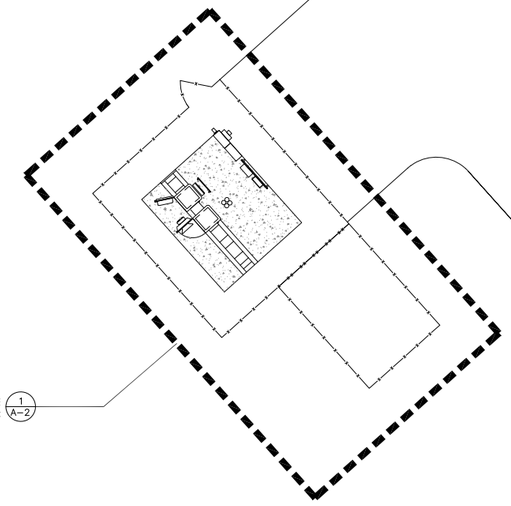

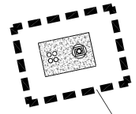

OVERALL SITE PLAN

0 4' 8' 16'

SCALE: 1/16" = 1'-0" (24x36)
(OR) 1/32" = 1'-0" (11x17)

1

CROWN CASTLE

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3 ROVLNA LANE
PETALUMA, CA 94952

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SJS	MIF	DM

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SHEET TITLE:
OVERALL SITE PLAN

SHEET NUMBER:
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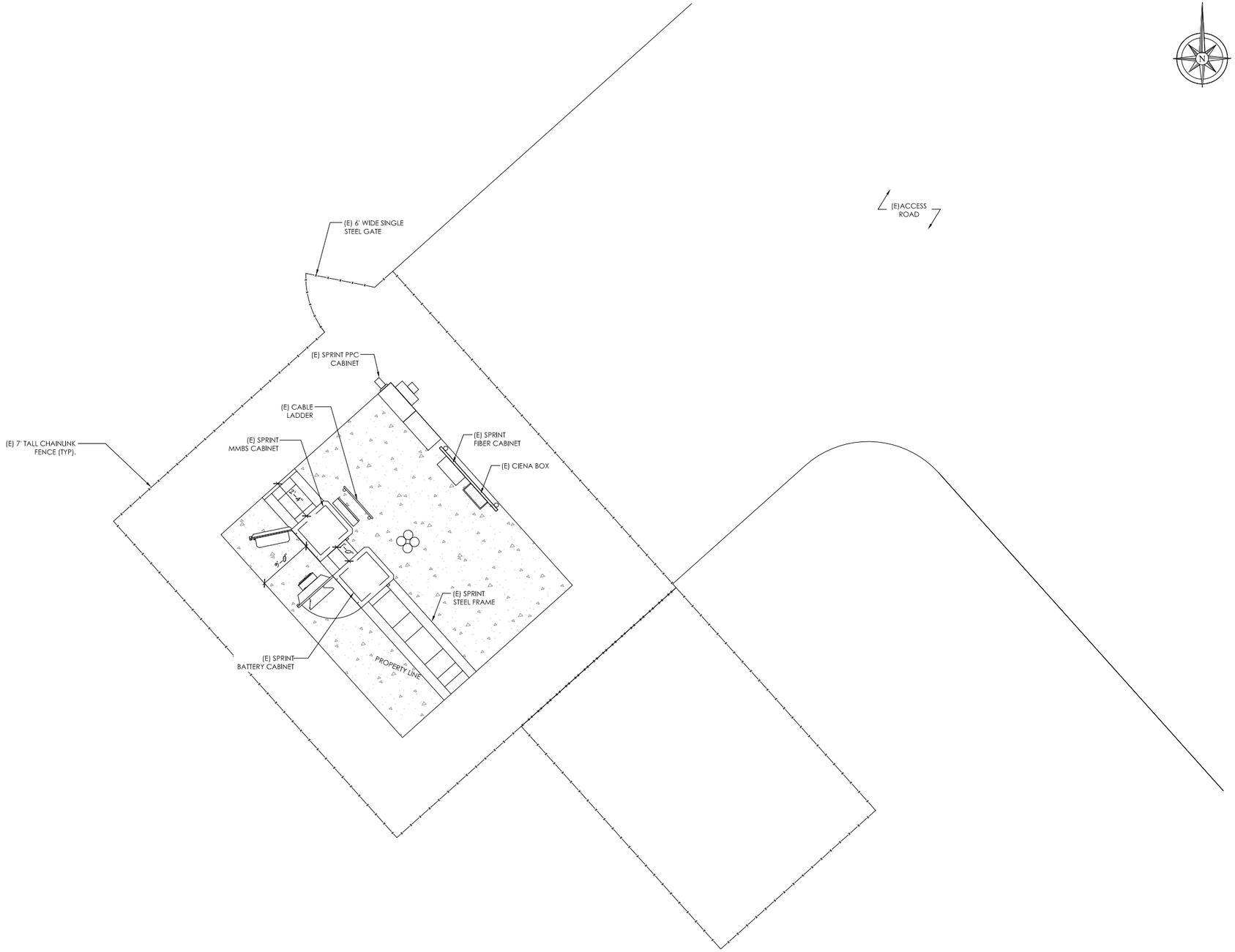

ENLARGED LEASE AREA PLAN

0 1' 2' 4'

SCALE: 1/4" = 1'-0" (24x36)
(OR) 1/8" = 1'-0" (11x17)

1

CROWN CASTLE

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CONSULTANT:

BEACON DEVELOPMENT, LLC
3 ROVLNA LANE
PETALUMA, CA 94952

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ENLARGED LEASE AREA PLAN

SHEET NUMBER:

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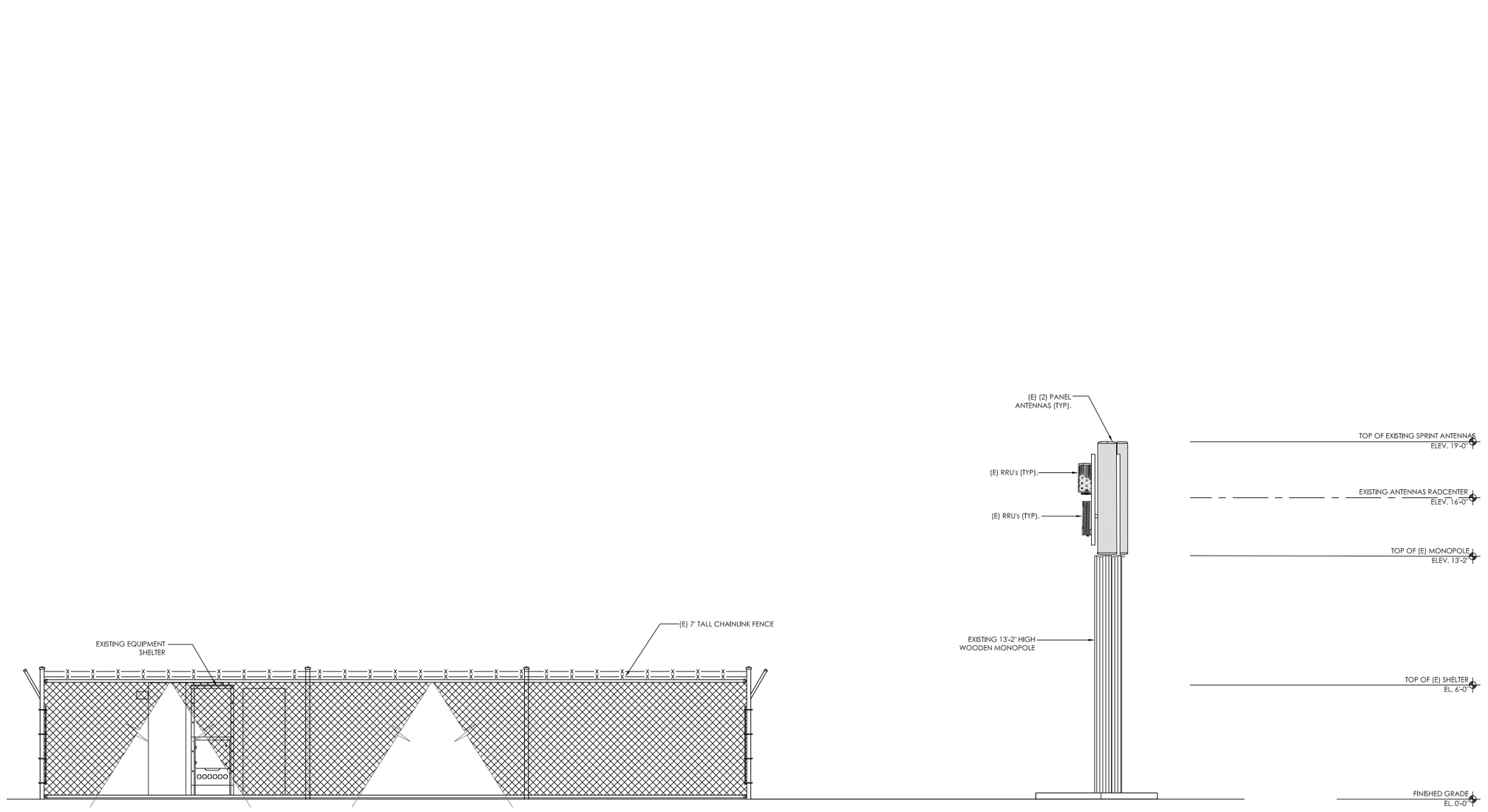

EXISTING NORTH ELEVATION

0 1.5' 3' 5'

SCALE: 3/16" = 1'-0" (24x36)
(OR) 3/32" = 1'-0" (11x17)

1

CROWN CASTLE

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3 ROVLNA LANE
PETALUMA, CA 94952

DRAWN BY:	CHK.:	APV.:
SJS	MiF	DM

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EXISTING NORTH ELEVATION

SHEET NUMBER:

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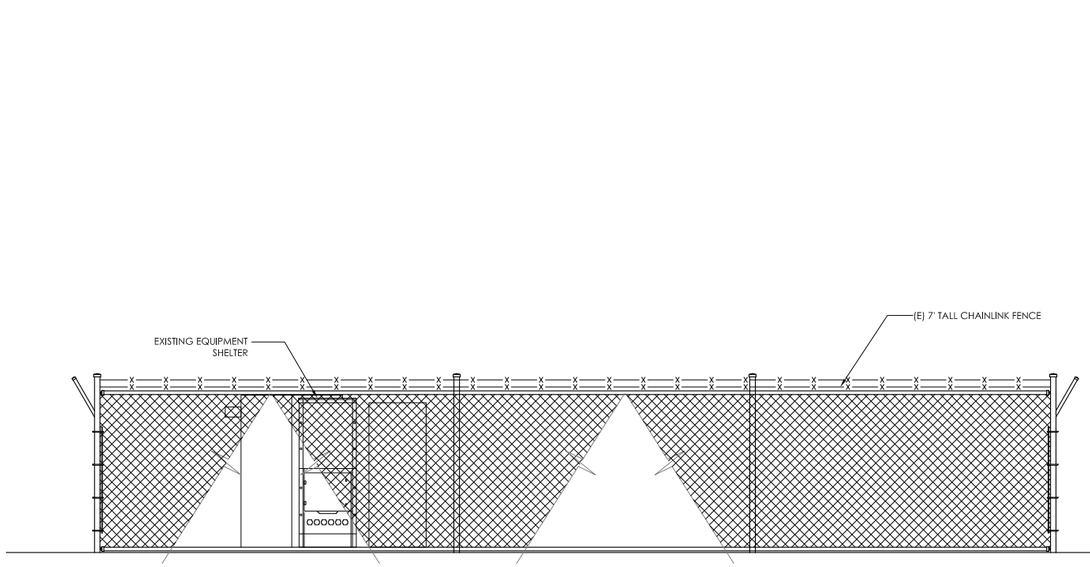

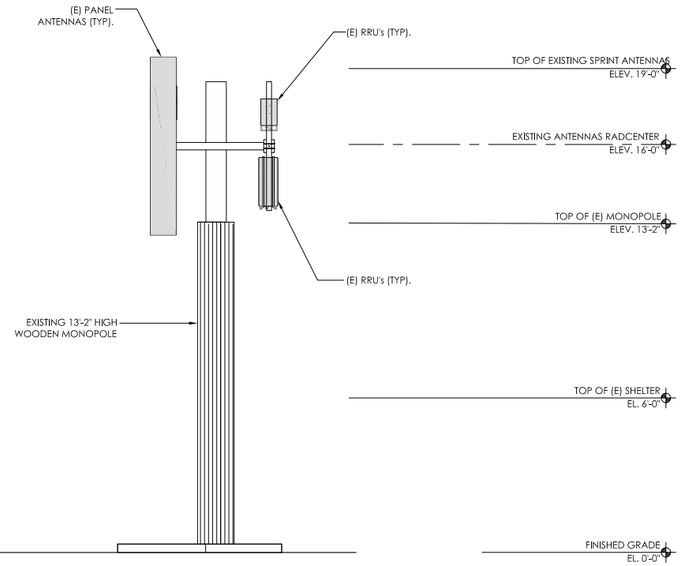

EXISTING WEST ELEVATION

0 1.5' 3' 5'

SCALE: 3/16" = 1'-0" (24x36)
(OR) 3/32" = 1'-0" (11x17)

1

CROWN CASTLE

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LIVERMORE, CA 94551

CONSULTANT:

BEACON DEVELOPMENT, LLC
3 ROVLNA LANE
PETALUMA, CA 94952

DRAWN BY:	CHK.:	APV.:
SjS	MiF	DM

LICENSER:

SHEET TITLE:

EXISTING WEST ELEVATION

SHEET NUMBER:

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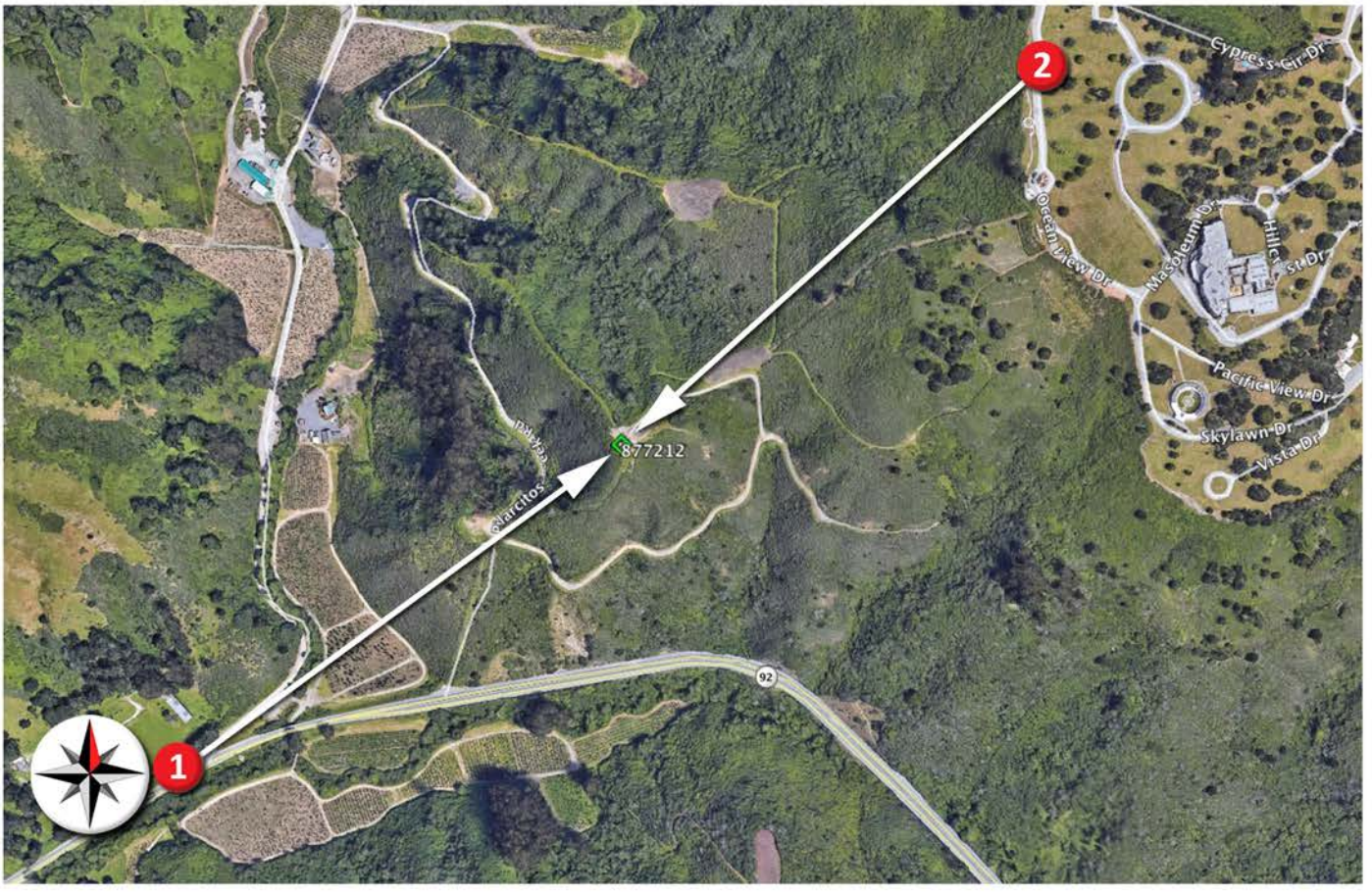
COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT D



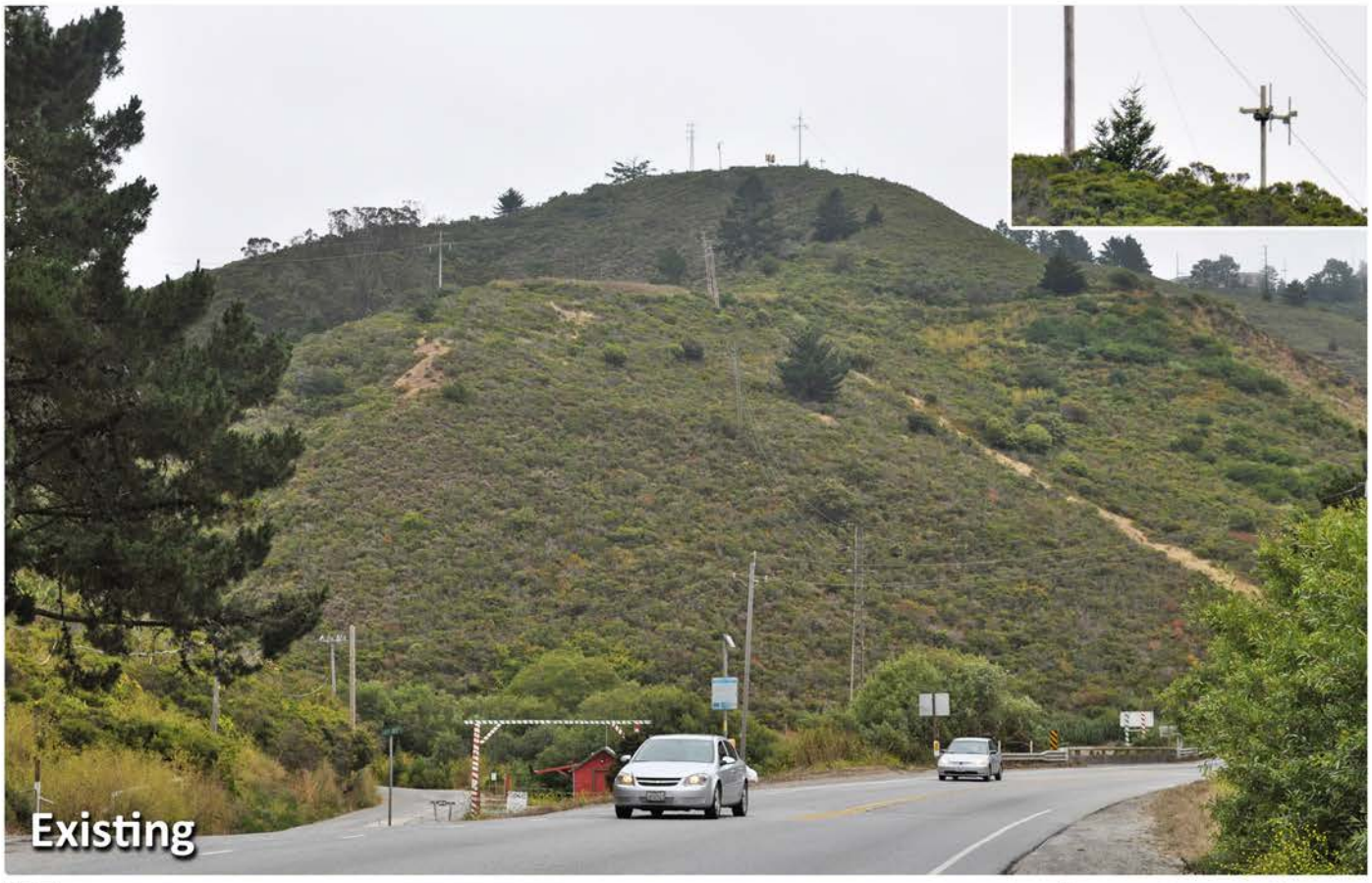
CROWN CASTLE

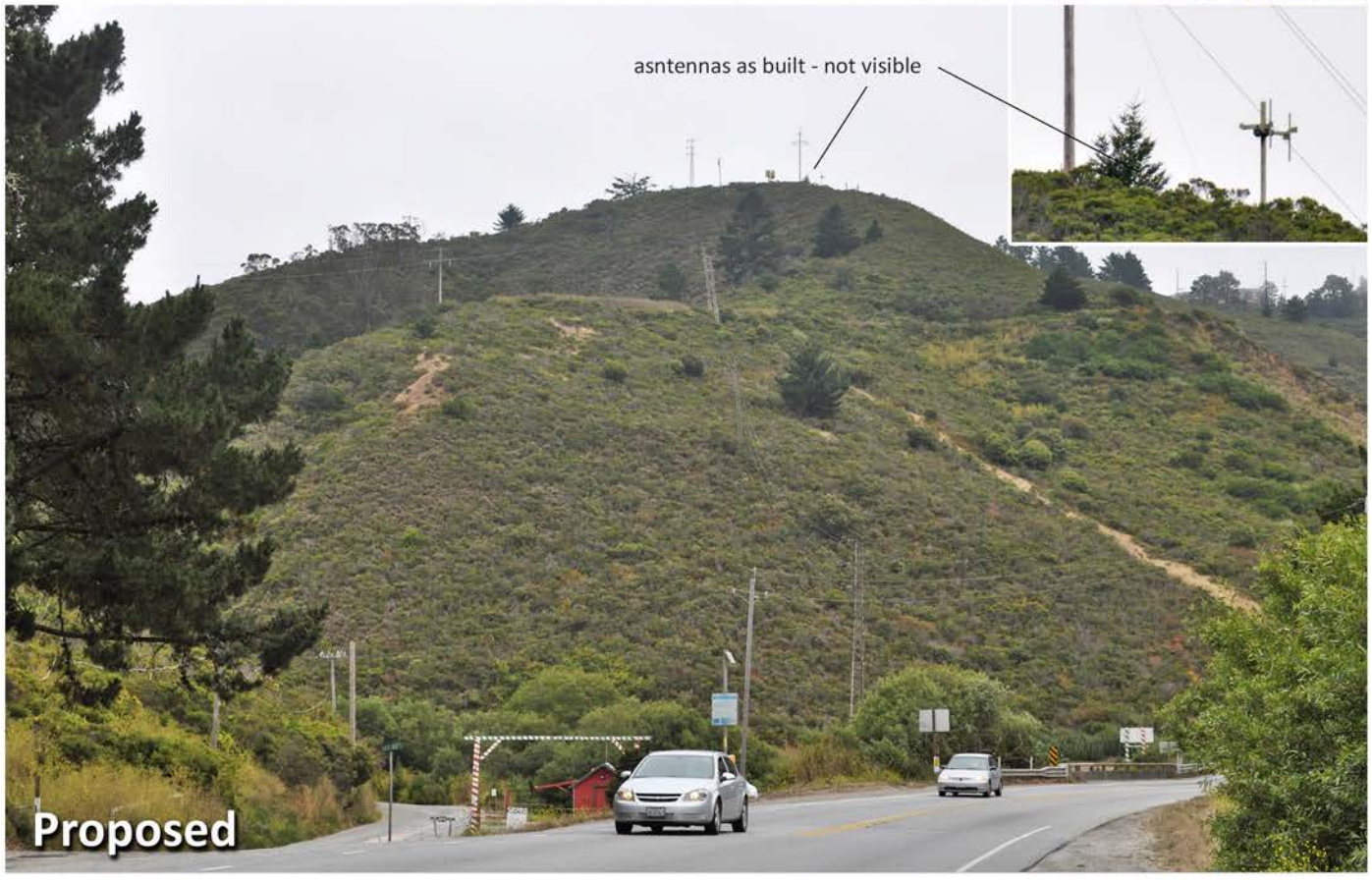
10/9/19

Cleo Sare Property Site # 877212

End of Pilarcitos Rd.
Half Moon Bay, CA

Aerial Map





CROWN CASTLE

10/9/19

Cleo Sare Property Site # 877212

End of Pilarcitos Rd.
Half Moon Bay, CA

Looking Northeast from San Mateo Rd.

View #1

insight photosim (707) 315-1585

CROWN CASTLE

10/9/19

Cleo Sare Property Site # 877212

End of Pilarcitos Rd.
Half Moon Bay, CA

Looking Southwest from Skylawn Memorial Park

View #2

insight photosim (707) 315-1585

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT E

County of San Mateo
Planning & Building Department
455 County Center, 2nd Floor
Redwood City, California 94063
650/363-4161 Fax: 650/363-4849
Mail Drop PLN122
plngbldg@co.sanmateo.ca.us
www.co.sanmateo.ca.us/planning

Please reply to: Melissa Ross
650/599-1559

May 8, 2009

PROJECT FILE

Sprint
C/o Sandra Steele
3685 19th Avenue
San Francisco, CA 94110

Subject: **PLN 2001-00286**
Location: **78 Pilarcitos Creek Road, Half Moon Bay**
APN: **056-380-060**

On May 7, 2009, the Zoning Hearing Officer considered your request for a Use Permit Renewal, pursuant to Section 6500 of the San Mateo County Zoning Regulations, to allow the continued operation of a cellular facility, located at 78 Pilarcitos Road in the unincorporated Half Moon Bay area of San Mateo County. This project is not appealable to the California Coastal Commission.

The Zoning Hearing Officer made the findings and approved this project subject to the conditions of approval as attached.

Any interested party aggrieved by the determination of the Zoning Hearing Officer may appeal this decision to the Planning Commission within ten (10) working days from such date of determination. The appeal period for this project will end on **May 21, 2009, at 5:00 p.m.**

If you have any questions concerning this item, please contact the Project Planner above.

Very truly yours,

Matthew Seubert
Zoning Hearing Officer

Zhd0507T_3rf.doc

cc: Building Inspection
Public Works
Cleo Sare
Assessor's Office
Cal-Fire
Dan Sare

Attachment A

County of San Mateo
Planning and Building Department

FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2001-00286 Hearing Date: May 7, 2009

Prepared By: Melissa Ross, Project Planner Adopted By: Zoning Hearing Officer

FINDINGS

For the Environmental Review, Found:

1. That the project is Categorically Exempt under Provisions of Class 1, Section 15301 of the California Environmental Quality Act Guidelines; Existing facilities of both investor and publicly-owned utilities used to provide electric power, natural gas, sewerage, or other public utility services.

For the Use Permit, Found:

1. That the establishment, maintenance and conducting of the use, as proposed and conditioned, will not be detrimental to the public welfare or injurious to property or improvements in the neighborhood and will not be materially detrimental to the public welfare or injurious to property or improvements in the neighborhood. The existing facility has maintained a valid FCC license and no modifications are proposed.

2. That this personal telecommunications facility is necessary for the public health, safety, convenience or welfare of the community by providing coverage for residents, commuters, and emergency responders and that this facility continues to operate in compliance with FCC guidelines limiting public exposure to radio frequency.

CONDITIONS OF APPROVAL

Current Planning Section

1. This approval applies only to the permit renewal described in this report and submitted to and approved by the Zoning Hearing Officer on May 7, 2009. Minor revisions or modifications to the project 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 valid for a 10-year period and shall expire on May 7, 2019. The applicant shall file for a renewal of this permit six (6) months prior to the expiration with the Current Planning Section, if continuation of this use is desired.

3. Any change in use or intensity shall require an amendment to the use permit. Amendment to this use permit requires an application for amendment, payment of applicable fees, and consideration at a public hearing prior to any construction or modifications to this facility.

4. If the monopoles and antennas need to be repainted prior to the expiration of this permit, the antennas shall be repainted a gray-green color and the fence a forest green.

5. The applicant shall not enter into a contract with the landowner or lessee that reserves for one company exclusive use of the tower structure or the site for telecommunication facilities.

6. The applicant shall receive and maintain approval from the FCC for the operation of the project at this site. Upon receipt of this approval, the applicant shall supply the Current Planning Section with proof of approval. If these approvals are ever revoked, the applicant shall inform the Current Planning Section of the revocation immediately.

7. The installation shall be removed in its entirety at that time when this technology becomes obsolete or this facility is no longer needed.

Cal-Fire

8. The applicant shall maintain fire clearance consisting of: (1) 14-foot overhead clearance the entire length of the road, (2) 30-foot clearance around the enclosed fenced area, (3) 10-foot clearance around the poles and other equipment outside the fence enclosure, and (4) 5-foot clearance on both sides of the roadway. The fire clearance shall be maintained by the applicant annually.

COUNTY OF SAN MATEO - PLANNING AND BUILDING DEPARTMENT

ATTACHMENT F

SITESAFE
RF COMPLIANCE EXPERTS

8618 Westwood Center Drive, Suite 315, Vienna, VA 22182
703.276.1100 ● 703.276.1169 fax
info@sitesafe.com ● www.sitesafe.com

Crown Castle
Site BU Number – 877212
Application ID – CUP Renewal
Site Name – CLEO SARE PROPERTY
Site Compliance Report

End of Pilarcitos Road
Half Moon Bay, CA 94019

Latitude: N37-29-44.00
Longitude: W122-22-49.50
Structure Type: Monopole

Report generated date: December 16, 2020
Report by: Leo Romero
Customer Contact: Jim Lee

Crown Castle will be compliant upon completion of the remediation identified in Section 3.2.

Signed 17 December 2020

Crown Castle
CLEO SARE PROPERTY - 877212
Radio Frequency (RF) Site Compliance Report

End of Pilarcitos Road, Half Moon Bay, CA 94019

8618 Westwood Center Drive • Suite 315 • Vienna, VA 22182
703.276.1100 • info@sitesafe.com

Table of Contents

1 Executive Summary

Crown Castle has contracted with Site Safe, LLC (Sitesafe), an independent Radio Frequency (RF) regulatory and engineering consulting firm, to determine whether the proposed communications site, 877212 - CLEO SARE PROPERTY, located at the end of Pilarcitos Road, Half Moon Bay, CA, is in compliance with the Federal Communication Commission (FCC) Rules and Regulations for RF emissions.

This report contains a detailed summary of the RF environment at the site including:

- Diagram of the site
- Inventory of the make / model of all antennas
- Theoretical MPE based on modeling

This report addresses exposure to radio frequency electromagnetic fields in accordance with the FCC Rules and Regulations for all individuals, classified in two groups, "Occupational or Controlled" and "General Public or Uncontrolled."

Crown Castle will be compliant with the FCC Rules and Regulations, as described in OET Bulletin 65, **upon implementation of the proposed remediation.** The corrective actions needed to make this site compliant are located in Section 3.2.

This document and the conclusions herein are based on the information provided by Crown Castle.

If you have any questions regarding RF safety and regulatory compliance, please do not hesitate to contact Sitesafe's Customer Support Department at (703) 276-1100.

2 Regulatory Basis

2.1 FCC Rules and Regulations

In 1996, the Federal Communications Commission (FCC) adopted regulations for evaluating the effects of RF emissions in 47 CFR § 1.1307 and 1.1310. The guideline from the FCC Office of Engineering and Technology is Bulletin 65 ("OET Bulletin 65"), *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields*, Edition 97-01, published August 1997. Since 1996, the FCC periodically reviews these rules and regulations as per their congressional mandate.

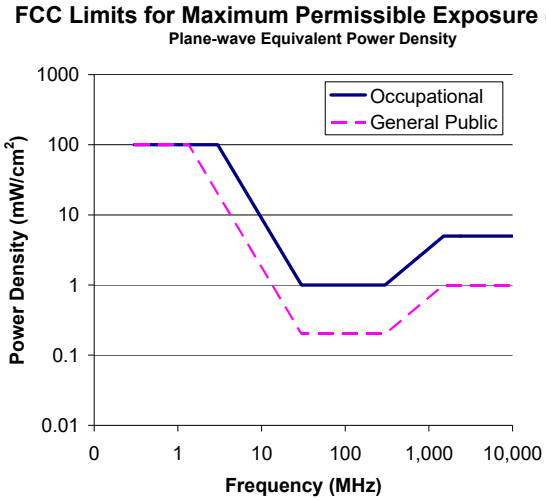
FCC regulations define two separate tiers of exposure limits: Occupational or "Controlled environment" and General Public or "Uncontrolled environment". The General Public limits are generally five times more conservative or restrictive than the Occupational limit. These limits apply to *accessible* areas where workers or the general public may be exposed to Radio Frequency (RF) electromagnetic fields.

Occupational or Controlled limits apply in situations in which persons are exposed as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure.

An area is considered a Controlled environment when access is limited to these aware personnel. Typical criteria are restricted access (i.e. locked or alarmed doors, barriers, etc.) to the areas where antennas are located coupled with proper RF warning signage. A site with Controlled environments is evaluated with Occupational limits.

All other areas are considered Uncontrolled environments. If a site has no access controls or no RF warning signage it is evaluated with General Public limits.

The theoretical modeling of the RF electromagnetic fields has been performed in accordance with OET Bulletin 65. The Maximum Permissible Exposure (MPE) limits utilized in this analysis are outlined in the following diagram:



Limits for Occupational/Controlled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

Limits for General Population/Uncontrolled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz *Plane-wave equivalent power density

2.2 OSHA Statement

The General Duty clause of the OSHA Act (Section 5) outlines the occupational safety and health responsibilities of the employer and employee. The General Duty clause in Section 5 states:

(a) Each employer –

(1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;

(2) shall comply with occupational safety and health standards promulgated under this Act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

OSHA has defined Radiofrequency and Microwave Radiation safety standards for workers who may enter hazardous RF areas. Regulation Standards 29 CFR § 1910.147 identify a generic lockout/tagout procedure aimed to control the unexpected energization or startup of machines when maintenance or service is being performed.

3 Site Compliance

3.1 Site Compliance Statement

Upon evaluation of the cumulative RF emission levels from all operators at this site, Sitesafe has determined that:

Crown Castle will be compliant with the FCC Rules and Regulations, as described in OET Bulletin 65 **upon implementation of the proposed remediation.** The corrective actions needed to make this site compliant are located in Section 3.2.

The compliance determination is based on theoretical modeling, RF signage placement recommendations, proposed antenna inventory and the level of restricted access to the antennas at the site. Any deviation from the Crown Castle deployment plan could result in the site being rendered non-compliant.

3.2 Actions for Site Compliance

Based on common industry practice and our understanding of FCC and OSHA requirements, this section provides a statement of recommendations for site compliance. Additional RF alert signage recommendations have been proposed based on theoretical analysis of MPE levels. Where applicable, barriers can consist of locked doors, fencing, railing, rope, chain, paint striping or tape, combined with RF alert signage.

The site will be made compliant if the following changes are implemented:

Base of Monopole

Ensure that a Warning sign is installed replacing the existing Notice and Caution signs.

Note: The monopole access must be locked or restricted for the site to be in compliance.

Note: Ensure all existing signage documented in this report still exists on site unless otherwise indicated.

4 Safety Plan and Procedures

The following items are general safety recommendations that should be administered on a site by site basis as needed by the carrier.

General Maintenance Work: Any maintenance personnel required to work immediately in front of antennas and / or in areas indicated as above 100% of the Occupational MPE limits should coordinate with the wireless operators to disable transmitters during their work activities.

Training and Qualification Verification: All personnel accessing areas indicated as exceeding the General Population MPE limits should have a basic understanding of EME awareness and RF Safety procedures when working around transmitting antennas. Awareness training increases a worker's understanding to potential RF exposure scenarios. Awareness can be achieved in a number of ways (e.g. videos, formal classroom lecture or internet-based courses).

Physical Access Control: Access restrictions to transmitting antennas locations is the primary element in a site safety plan. Examples of access restrictions are as follows:

- Locked door or gate
- Alarmed door
- Locked ladder access
- Restrictive Barrier at antenna (e.g. Chain link with posted RF Sign)

RF Signage: Everyone should obey all posted signs at all times. RF signs play an important role in properly warning a worker prior to entering into a potential RF Exposure area.

Assume all antennas are active: Due to the nature of telecommunications transmissions, an antenna transmits intermittently. Always assume an antenna is transmitting. Never stop in front of an antenna. If you have to pass by an antenna, move through as quickly and safely as possible thereby reducing any exposure to a minimum.

Maintain a 3-foot clearance from all antennas: There is a direct correlation between the strength of an EME field and the distance from the transmitting antenna. The farther away from an antenna, the lower the corresponding EME field is.

Site RF Emissions Diagram(s): Section 5 of this report contains RF Diagram(s) that outline various theoretical Maximum Permissible Exposure (MPE) areas at the site. The modeling is a worst-case scenario assuming a duty cycle of 100% for each transmitting antenna at full power. This analysis is based on one of two access control criteria: General Public criteria means the access to the site is uncontrolled and anyone can gain access. Occupational criteria means the access is restricted and only properly trained individuals can gain access to the antenna locations.

5 Analysis

5.1 RF Emissions Diagram

The RF diagram(s) below display theoretical spatially averaged percentage of the Maximum Permissible Exposure for all systems at the site unless otherwise noted. These diagrams use modeling as prescribed in OET Bulletin 65 and assumptions detailed in Appendix B.

The key at the bottom of each diagram indicates if percentages displayed are referenced to FCC **General Public** Maximum Permissible Exposure (MPE) limits. Color coding on the diagram is as follows:

This table displays the maximum theoretical percentage of the FCC's General Public MPE limits:

	General Public Levels:	
Exposure Type:	**Maximum**	**Spatial Average**
Reference Level:	**Antenna Level**	**Ground**
Crown Castle:	8,702.0%	25.0%
Composite:	9,316.0%	981.0%

Note: On the diagrams shown below, each level is marked with a height. For all diagrams that are marked as *Spatially Averaged*, the modeling program will spatially average the emissions within the area six feet above each set level. This provides an accurate spatial average of the percentage of the FCC's MPE limits within an accessible area.

In the RF exposure simulations below, all heights are reflected with respect to ground level. Each different area, rooftop, or platform level is labeled with its height relative to the main site level. Exposure is calculated appropriately based on the relative height and location of that area to all antennas. The analyzed elevations in the RF exposure simulations are as follows:

- Ground Level = 0'

RF Exposure Simulation For: CLEO SARE PROPERTY
Composite View

% of FCC Public Exposure Limit
Spatially Averaged

% of FCC Public Exposure Limit

0-5	5-100	100-500	500-5000	5000+

Carrier Identification

AT&T MOBILITY LLC | VERIZON WIRELESS | T-MOBILE | SPRINT | UNKNOWN CARRIER

Existing Barrier | Proposed Barrier/Sign | Remove Sign X | Locked Ladder

(Feet)

0 13.7 27.4

www.sitesafe.com
12/16/2020 10:28:51 AM

Sitesafe OET-65 Model
Near Field Boundary:
1.5 * Aperture
Reflection Factor: 1
Spatially Averaged

RF Exposure Simulation For: CLEO SARE PROPERTY
Sprint Contribution

% of FCC Public Exposure Limit
Spatially Averaged

% of FCC Public Exposure Limit

0-5	5-100	100-500	500-5000	5000+

Carrier Identification

AT&T MOBILITY LLC | VERIZON WIRELESS | T-MOBILE | SPRINT | UNKNOWN CARRIER

Existing Barrier | Proposed Barrier/Sign | Remove Sign | Locked Ladder

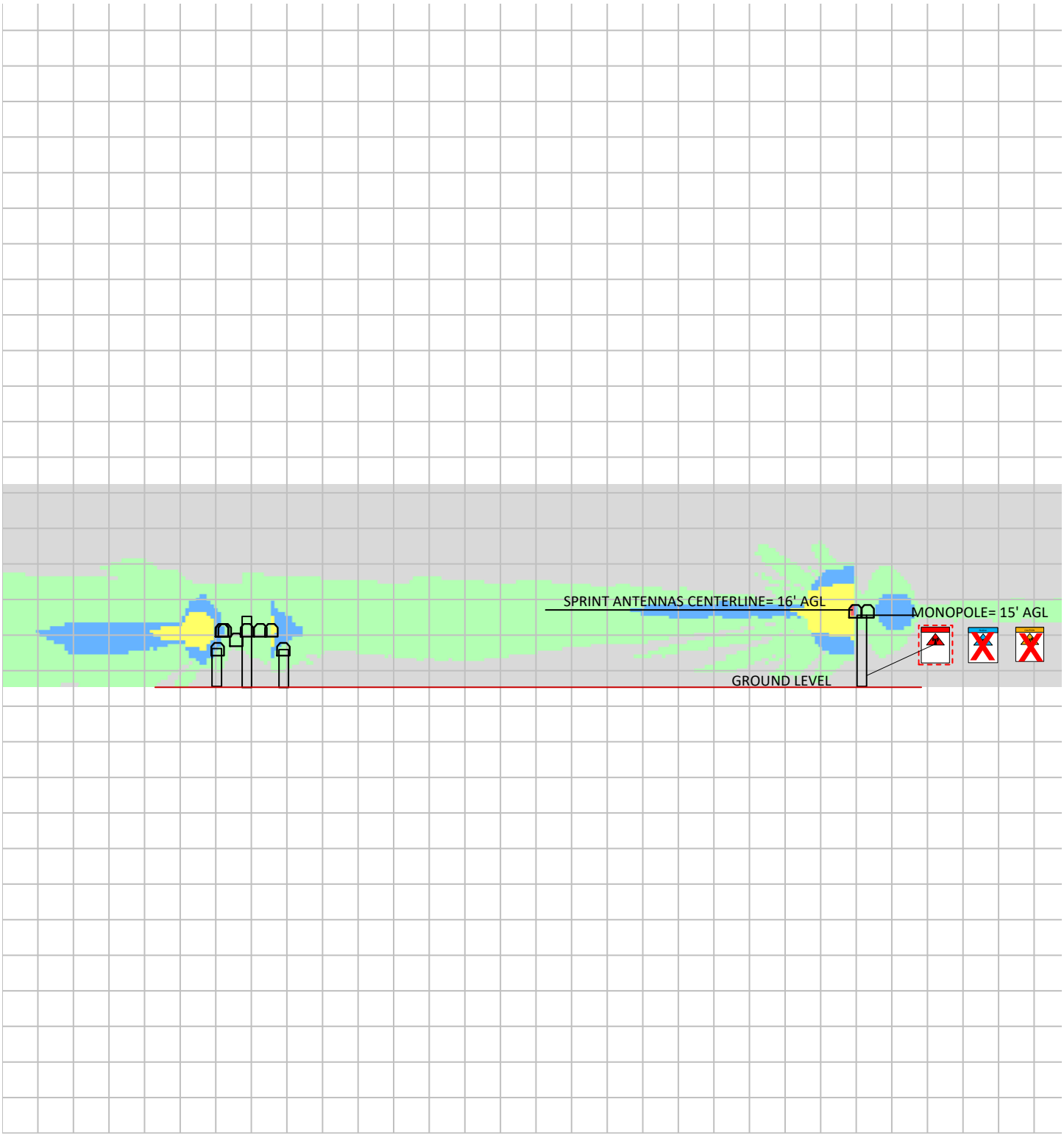
(Feet)

0 13.7 27.4

www.sitesafe.com
12/16/2020 10:31:23 AM

Sitesafe OET-65 Model
Near Field Boundary:
1.5 * Aperture
Reflection Factor: 1
Spatially Averaged

RF Exposure Simulation For: CLEO SARE PROPERTY
Elevation View



% of FCC Public Exposure Limit
Single Level (0)

% of FCC Public Exposure Limit

0-5	5-100	100-500	500-5000	5000+

Carrier Identification

AT&T MOBILITY LLC | VERIZON WIRELESS | T-MOBILE | SPRINT | UNKNOWN CARRIER

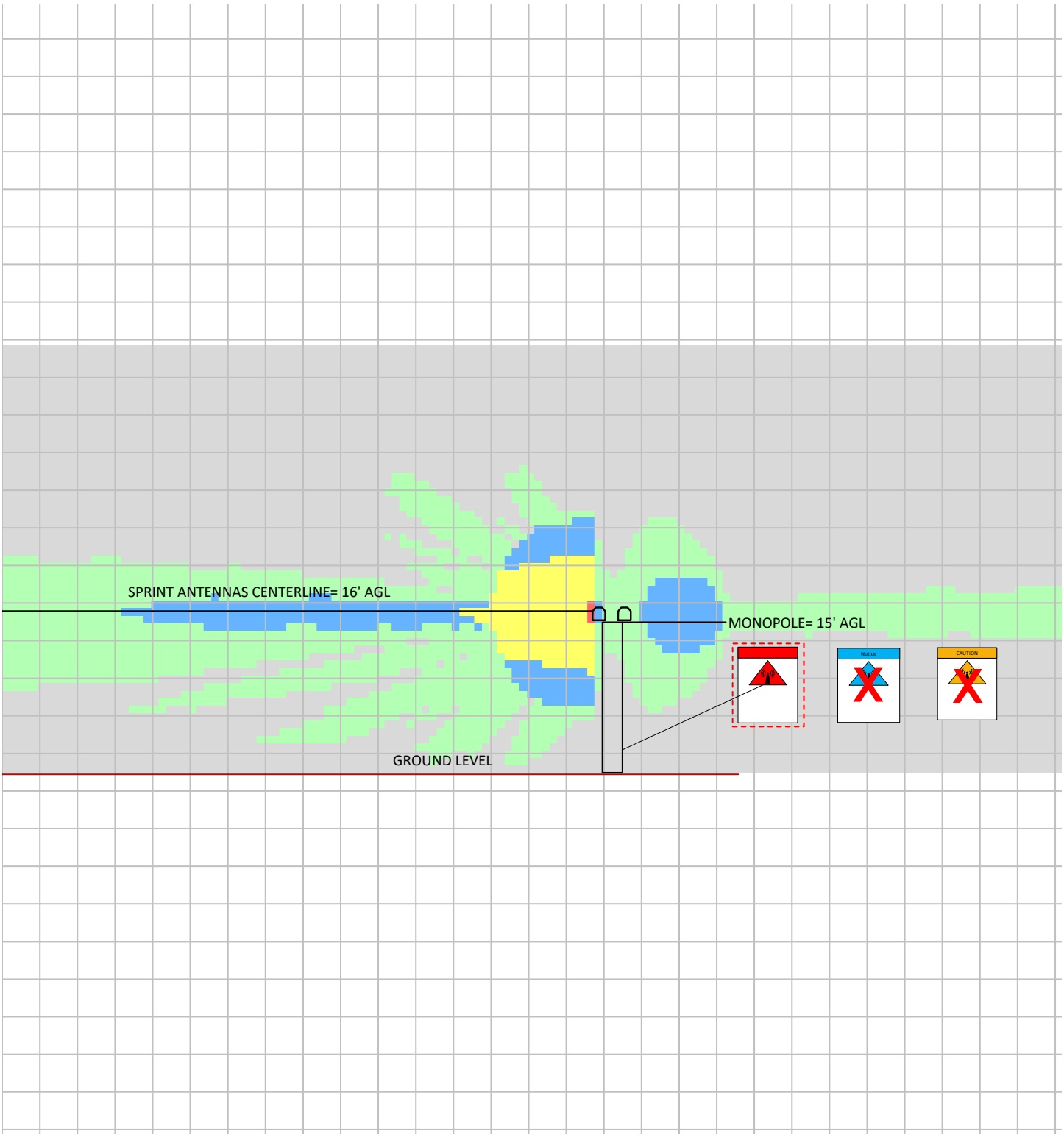
(Feet)

0 14.9 29.8

www.sitesafe.com
12/16/2020 10:18:18 AM

Sitesafe OET-65 Model
Near Field Boundary:
1.5 * Aperture
Reflection Factor: 1
Single Level (0)

RF Exposure Simulation For: CLEO SARE PROPERTY
Elevation View Sprint



% of FCC Public Exposure Limit
Single Level (0)

% of FCC Public Exposure Limit

0-5	5-100	100-500	500-5000	5000+

Carrier Identification

AT&T MOBILITY LLC | VERIZON WIRELESS | T-MOBILE | SPRINT | UNKNOWN CARRIER

(Feet)

0 7 14

www.sitesafe.com
12/16/2020 10:19:24 AM

Sitesafe OET-65 Model
Near Field Boundary:
1.5 * Aperture
Reflection Factor: 1
Single Level (0)

6 Antenna Inventory

The Antenna Inventory shows all transmitting antennas at the site. This inventory was provided by the customer and was utilized by Sitesafe to perform theoretical modeling of RF emissions. The inventory coincides with the site diagrams in this report, identifying each antenna's location at 877212 - CLEO SARE PROPERTY. The antenna information collected includes the following information:

- Licensee or wireless operator name
- Frequency or frequency band
- Transmitter power – Transmitter Power Output ("TPO"), Effective Radiated Power ("ERP"), or Equivalent Isotropic Radiated Power ("EIRP")
- Antenna manufacturer make, model, and gain

For other carriers at this site, the use of "Generic" as an antenna model, or "Unknown" for an operator means the information with regard to carrier, their FCC license and/or antenna information was not available nor could it be secured while on site. Equipment, antenna models and nominal transmit power were used for modeling, based on past experience with radio service providers.

The following antenna inventory was provided by the customer and was utilized to create the site model diagrams:

Antenna Inventory																	
Ant #	Operator	Antenna Make and Model	Ant Type	Len (ft)	TX Freq (MHz)	Tech	Az (Deg)	Antenna Gain (dBd)	Horizontal Half Power BW (Deg)	Power	Power Type	Power Units	# of Trans	ERP (Watts)	Z(ft) (AGL)	MDT	EDT
1	SPRINT	KMW ETCR-654L12H6	Panel	7.1	862	LTE	115	12.86	68	100	TPO	Watt	1	1932	16	0	0
1	SPRINT	KMW ETCR-654L12H6	Panel	7.1	1900	CDMA	115	16.66	60.58	90	TPO	Watt	1	4171	16	0	0
1	SPRINT	KMW ETCR-654L12H6	Panel	7.1	1990	LTE	115	16.66	60.58	90	TPO	Watt	1	4171	16	0	0
1	SPRINT	KMW ETCR-654L12H6	Panel	7.1	2500	LTE	115	16.16	73	160	TPO	Watt	1	6608.8	16	0	0
2	SPRINT	KMW ETCR-654L12H6	Panel	7.1	862	LTE	245	12.86	68	100	TPO	Watt	1	1932	16	0	0
2	SPRINT	KMW ETCR-654L12H6	Panel	7.1	1900	LTE	245	16.66	60.58	90	TPO	Watt	1	4171	16	0	0
2	SPRINT	KMW ETCR-654L12H6	Panel	7.1	1990	CDMA	245	16.66	60.58	90	TPO	Watt	1	4171	16	0	0
2	SPRINT	KMW ETCR-654L12H6	Panel	7.1	2500	LTE	245	16.16	73	160	TPO	Watt	1	6608.8	16	0	0
3	AT&T MOBILITY LLC	CCI Antennas HPA-45R-BUU-H4	Panel	4.2	850	UMTS	235	12.76	41.2	45.77	TPO	dBmW	1	712.9	12	0	6
3	AT&T MOBILITY LLC	CCI Antennas HPA-45R-BUU-H4	Panel	4.2	850	UMTS	235	12.76	41.2	45.77	TPO	dBmW	1	712.9	12	0	6
3	AT&T MOBILITY LLC	CCI Antennas HPA-45R-BUU-H4	Panel	4.2	850	UMTS	235	12.76	41.2	45.77	TPO	dBmW	1	712.9	12	0	6
3	AT&T MOBILITY LLC	CCI Antennas HPA-45R-BUU-H4	Panel	4.2	850	UMTS	235	12.76	41.2	45.77	TPO	dBmW	1	712.9	12	0	6
3	AT&T MOBILITY LLC	CCI Antennas HPA-45R-BUU-H4	Panel	4.2	850	UMTS	235	12.76	41.2	45.77	TPO	dBmW	1	712.9	12	0	6
4	AT&T MOBILITY LLC	CCI Antennas HPA-45R-BUU-H6	Panel	6	1900	LTE	235	15.86	47.3	50.53	TPO	dBmW	1	4355.1	12	0	0
5	AT&T MOBILITY LLC	CCI Antennas HPA-45R-BUU-H6	Panel	6	737	LTE	235	13.26	51.5	47.52	TPO	dBmW	1	1196.7	12	0	2
6	AT&T MOBILITY LLC	CCI Antennas HPA-65R-BUU-H6	Panel	6	850	UMTS	120	11.68	66.2	45.77	TPO	dBmW	1	555.9	12	0	6
6	AT&T MOBILITY LLC	CCI Antennas HPA-65R-BUU-H6	Panel	6	850	UMTS	120	11.68	66.2	45.77	TPO	dBmW	1	555.9	12	0	6
6	AT&T MOBILITY LLC	CCI Antennas HPA-65R-BUU-H6	Panel	6	850	UMTS	120	11.68	66.2	45.77	TPO	dBmW	1	555.9	12	0	6

Antenna Inventory																	
Ant #	Operator	Antenna Make and Model	Ant Type	Len (ft)	TX Freq (MHz)	Tech	Az (Deg)	Antenna Gain (dBd)	Horizontal Half Power BW (Deg)	Power	Power Type	Power Units	# of Trans	ERP (Watts)	Z(ft) (AGL)	MDT	EDT
6	AT&T MOBILITY LLC	CCI Antennas HPA-65R-BUU-H6	Panel	6	850	UMTS	120	11.68	66.2	45.77	TPO	dBmW	1	555.9	12	0	6
6	AT&T MOBILITY LLC	CCI Antennas HPA-65R-BUU-H6	Panel	6	850	UMTS	120	11.68	66.2	45.77	TPO	dBmW	1	555.9	12	0	6
7	AT&T MOBILITY LLC	CCI Antennas HPA-65R-BUU-H6	Panel	6	1900	LTE	120	14.53	61.1	50.53	TPO	dBmW	1	3206.3	12	0	0
8	AT&T MOBILITY LLC	CCI Antennas HPA-65R-BUU-H6	Panel	6	737	LTE	120	11.68	66.2	47.52	TPO	dBmW	1	831.8	12	0	0
9	T-MOBILE	Generic	Panel	6.3	1900		150	16.26	65	160	TPO	Watt	1	6762.7	8	0	0
10	T-MOBILE	Generic	Panel	6.3	2100		150	15.53	65	160	TPO	Watt	1	5716.4	10	0	0
11	T-MOBILE	Generic	Panel	6.3	2100		240	15.53	65	160	TPO	Watt	1	5716.4	8	0	0
11	T-MOBILE	Generic	Panel	6.3	1900		240	16.26	65	160	TPO	Watt	1	6762.7	8	0	0

Note: The Z reference indicates antenna height **above ground level (AGL).** ERP values provided by the client and used in the modeling may be greater than are currently deployed. For additional modeling information, refer to Appendix B. Proposed equipment is tagged as *(Proposed)* under *Operator* or *Antenna Make and Model.*

7 Engineer Certification

The professional engineer whose seal appears on the cover of this document hereby certifies and affirms:

That I am registered as a Professional Engineer in the jurisdiction indicated in the professional engineering stamp on the cover of this document; and

That I am an employee of Site Safe, LLC, in Vienna, Virginia, at which place the staff and I provide RF compliance services to clients in the wireless communications industry; and

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission (FCC) as well as the regulations of the Occupational Safety and Health Administration (OSHA), both in general and specifically as they apply to the FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields; and

That I have thoroughly reviewed this Site Compliance Report and believe it to be true and accurate to the best of my knowledge as assembled by and attested to by Leo Romero.

December 17, 2020

Appendix A – Statement of Limiting Conditions

Sitesafe will not be responsible for matters of a legal nature that affect the site or property.

Due to the complexity of some wireless sites, Sitesafe performed this analysis and created this report utilizing best industry practices and due diligence. Sitesafe cannot be held accountable or responsible for anomalies or discrepancies due to actual site conditions (i.e. mislabeling of antennas or equipment, inaccessible cable runs, inaccessible antennas or equipment, etc.) or information or data supplied by Crown Castle, the site manager, or their affiliates, subcontractors or assigns.

Sitesafe has provided computer generated model(s) in this Site Compliance Report to show approximate dimensions of the site, and the model is included to assist the reader of the compliance report to visualize the site area, and to provide supporting documentation for Sitesafe's recommendations.

Sitesafe may note in the Site Compliance Report any adverse physical conditions, such as needed repairs, observed during the survey of the subject property or that Sitesafe became aware of during the normal research involved in performing this survey. Sitesafe will not be responsible for any such conditions that do exist or for any engineering or testing that might be required to discover whether such conditions exist. Because Sitesafe is not an expert in the field of mechanical engineering or building maintenance, the Site Compliance Report must not be considered a structural or physical engineering report.

Sitesafe obtained information used in this Site Compliance Report from sources that Sitesafe considers reliable and believes them to be true and correct. Sitesafe does not assume any responsibility for the accuracy of such items that were furnished by other parties. When conflicts in information occur between data provided by a second party and physical data collected by Sitesafe, the physical data will be used.

Appendix B – Assumptions and Definitions

General Model Assumptions

In this site compliance report, it is assumed that all antennas are operating at **full power at all times**. Software modeling was performed for all transmitting antennas located on the site. Sitesafe has further assumed a 100% duty cycle and maximum radiated power.

The site has been modeled with these assumptions to show the maximum RF energy density. Sitesafe believes this to be a *worst-case* analysis, based on best available data. Areas modeled to predict emissions greater than 100% of the applicable MPE level may not actually occur but are shown as a *worst-case* prediction that could be realized real time. Sitesafe believes these areas to be safe for entry by occupationally trained personnel utilizing appropriate personal protective equipment (in most cases, a personal monitor).

Thus, at any time, if power density measurements were made, we believe the real-time measurements would indicate levels below those depicted in the RF emission diagram(s) in this report. By modeling in this way, Sitesafe has conservatively shown exclusion areas – areas that should not be entered without the use of a personal monitor, carriers reducing power, or performing real-time measurements to indicate real-time exposure levels.

Use of Generic Antennas

For the purposes of this report, the use of "Generic" as an antenna model, or "Unknown" for an operator means the information about a carrier, their FCC license and/or antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of equipment, antenna models, and transmit power to model the site. If more specific information can be obtained for the unknown measurement criteria, Sitesafe recommends remodeling of the site utilizing the more complete and accurate data. Information about similar facilities is used when the service is identified and associated with a particular antenna. If no information is available regarding the transmitting service associated with an unidentified antenna, using the antenna manufacturer's published data regarding the antenna's physical characteristics makes more conservative assumptions.

Where the frequency is unknown, Sitesafe uses the closest frequency in the antenna's range that corresponds to the highest MPE, resulting in a conservative analysis.

Definitions

5% Rule – The rules adopted by the FCC specify that, in general, at multiple transmitter sites actions necessary to bring the area into compliance with the guidelines are the shared responsibility of all licensees whose transmitters produce field strengths or power density levels at the area in question in excess of 5% of the exposure limits. In other words, any wireless operator that contributes 5% or greater of the MPE limit in an area that is identified to be greater than 100% of the MPE limit is responsible for taking corrective actions to bring the site into compliance.

Compliance – The determination of whether a site complies with FCC standards with regards to Human Exposure to Radio Frequency Electromagnetic Fields from transmitting antennas.

Decibel (dB) – A unit for measuring power or strength of a signal.

Duty Cycle – The percent of pulse duration to the pulse period of a periodic pulse train. Also, may be a measure of the temporal transmission characteristic of an intermittently transmitting RF source such as a paging antenna by dividing average transmission duration by the average period for transmission. A duty cycle of 100% corresponds to continuous operation.

Effective (or Equivalent) Isotropic Radiated Power (EIRP) – The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna.

Effective Radiated Power (ERP) – The product of the power supplied to the antenna and the antenna gain in a given direction relative to a half-wave dipole antenna.

Gain (of an antenna) – The ratio, usually expressed in decibels, of the power required at the input of a loss-free reference antenna to the power supplied to the input of the given antenna to produce, in a given direction, the same field strength or the same power density at the same distance. When not specified otherwise, the gain refers to the direction of maximum radiation. Gain may be considered for a specified polarization. Gain may be referenced to an isotropic antenna (dBi) or a half-wave dipole (dBd) antenna.

General Population/Uncontrolled Environment – Defined by the FCC as an area where RF exposure may occur to persons who are *unaware* of the potential for exposure and who have no control over their exposure. General Population is also referenced as General Public.

Generic Antenna – For the purposes of this report, the use of "Generic" as an antenna model means the antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use its industry specific knowledge of antenna models to select a worst-case scenario antenna to model the site.

Isotropic Antenna – An antenna that is completely non-directional. In other words, an antenna that radiates energy equally in all directions.

Maximum Measurement – This measurement represents the single largest measurement recorded when performing a spatial average measurement.

Maximum Permissible Exposure (MPE) – The rms and peak electric and magnetic field strength, their squares, or the plane-wave equivalent power densities associated with these fields to which a person may be exposed without harmful effect and with acceptable safety factor.

Occupational/Controlled Environment – Defined by the FCC as an area where RF exposure may occur to persons who are **aware** of the potential for exposure as a condition of employment or specific activity and can exercise control over their exposure.

OET Bulletin 65 – Technical guideline developed by the FCC's Office of Engineering and Technology to determine the impact of RF exposure on humans. The guideline was published in August 1997.

OSHA (Occupational Safety and Health Administration) – Under the Occupational Safety and Health Act of 1970, employers are responsible for providing a safe and healthy workplace for their employees. OSHA's role is to promote the safety and health of America's working men and women by setting and enforcing standards; providing training, outreach and education; establishing partnerships; and encouraging continual process improvement in workplace safety and health. For more information, visit www.osha.gov.

Radio Frequency Exposure or Electromagnetic Fields – Electromagnetic waves that are propagated from antennas through space.

Spatial Average Measurement – A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average energy a 6-foot tall human body will absorb while present in an electromagnetic field of energy.

Transmitter Power Output (TPO) – The radio frequency output power of a transmitter's final radio frequency stage as measured at the output terminal while connected to a load.

Appendix C – Rules & Regulations

Explanation of Applicable Rules and Regulations

The FCC has set forth guidelines in OET Bulletin 65 for human exposure to radio frequency electromagnetic fields. Specific regulations regarding this topic are listed in Part 1, Subpart I, of Title 47 in the Code of Federal Regulations. Currently, there are two different levels of MPE - General Public MPE and Occupational MPE. An individual classified as Occupational can be defined as an individual who has received appropriate RF training and meets the conditions outlined below. General Public is defined as anyone who does not meet the conditions of being Occupational. FCC and OSHA Rules and Regulations define compliance in terms of total exposure to total RF energy, regardless of location of or proximity to the sources of energy.

It is the responsibility of all licensees to ensure these guidelines are maintained at all times. It is the ongoing responsibility of all licensees composing the site to maintain ongoing compliance with the FCC Rules and Regulations. Individual licensees that contribute less than 5% MPE to any total area out of compliance are not responsible for corrective actions.

OSHA has adopted and enforces the FCC's exposure guidelines. A building owner or site manager can use this report as part of an overall RF Health and Safety Policy. It is important for building owners/site managers to identify areas in excess of the General Population MPE and ensure that only persons qualified as Occupational are granted access to those areas.

Occupational Environment Explained

The FCC definition of Occupational exposure limits apply to persons who:

- are exposed to RF energy as a consequence of their employment;
- have been made aware of the possibility of exposure; and
- can exercise control over their exposure.

OSHA guidelines go further to state that persons must complete RF Safety Awareness training and must be trained in the use of appropriate personal protective equipment.

In order to consider this site an Occupational Environment, the site must be controlled to prevent access by any individuals classified as the General Public. Compliance is also maintained when any non-occupational individuals (the General Public) are prevented from accessing areas indicated as Red or Yellow in the attached RF Emissions diagram. In addition, a person must be aware of the RF environment into which they are entering. This can be accomplished by an RF Safety Awareness class, and by appropriate written documentation such as this Site Compliance Report.

All Crown Castle employees who require access to this site must complete RF Safety Awareness training and must be trained in the use of appropriate personal protective equipment.

Appendix D – General Safety Recommendations

The following are *general recommendations* appropriate for any site with accessible areas in excess of 100% General Public MPE. These recommendations are not specific to this site. These are safety recommendations appropriate for typical site management, building management, and other tenant operations.

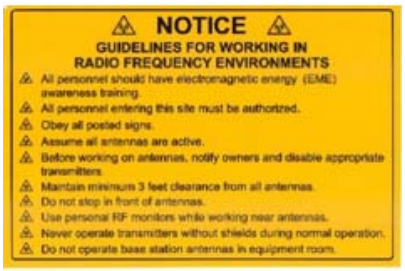
1. All individuals needing access to the main site (or the area indicated to be in excess of General Public MPE) should wear a personal protective monitor (PPM), successfully complete proper RF Safety Awareness training, and have and be trained in the use of appropriate personal protective equipment.

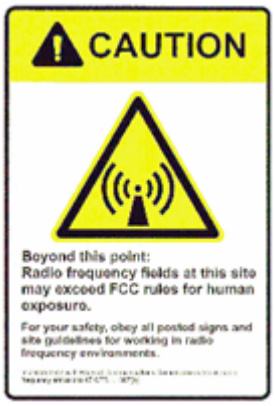
2. All individuals needing access to the main site should be instructed to read and obey all posted placards and signs.

3. The site should be routinely inspected and this or similar report updated with the addition of any antennas or upon any changes to the RF environment including:

- adding new antennas that may have been located on the site
- removing of any existing antennas
- changes in the radiating power or number of RF emitters

4. Post the appropriate **NOTICE**, **CAUTION,** or **WARNING** sign at the main site access point(s) and other locations as required. Note: Please refer to RF Exposure Diagrams in Section 5.1 to inform <u>everyone</u> who has access to this site that beyond posted signs there may be levels in excess of the limits prescribed by the FCC. In addition to RF Advisory Signage, a RF Guideline Signage is recommended to be posted at the main site access point(s). The signs below are examples of signs meeting FCC guidelines.





5. Ensure that the site door remains locked (or appropriately controlled) to deny access to the general public if deemed as policy by the building/site owner.

6. For a General Public environment the five color levels identified in this analysis can be interpreted in the following manner:

- Gray represents areas predicted to be at 5% or less of the General Public MPE limits. *The General Public can access these areas with no restrictions.*

- Green represents areas predicted to be between 5% and 100% of the General Public MPE limits. *The General Public can access these areas with no restrictions.*
- Blue represents areas predicted to be between 100% and 500% of the General Public MPE limits. *The General Public should be restricted from accessing these areas.*
- Yellow represents areas predicted to be between 500% and 5000% of the General Public MPE limits. *The General Public should be restricted from accessing these areas.*
- Red represents areas predicted to be greater than 5000% of the General Public MPE limits. *The General Public should be restricted from accessing these areas.*

7. For an Occupational environment the five color levels identified in this analysis can be interpreted in the following manner:

- Gray represents areas predicted to be at 1% or less of the Occupational MPE limits. *Workers can access these areas with no restrictions.*
- Green represents areas predicted to be between 1% and 20% of the Occupational MPE limits. *Workers can access these areas with no restrictions.*
- Blue represents areas predicted to be between 20% and 100% of the Occupational MPE limits. *Workers can access these areas assuming they have basic understanding of EME awareness and RF safety procedures and understand how to limit their exposure.*
- Yellow represents areas predicted to be between 100% and 1000% of the Occupational MPE limits. *Workers can access these areas assuming they have basic understanding of EME awareness and RF safety procedures and understand how to limit their exposure. Transmitter power reduction and/or time-averaging may be required.*
- Red represents areas predicted to be greater than 1000% of the Occupational MPE limits. *These areas are not safe for workers to be in for prolonged periods of time. Special procedures must be adhered to, such as lockout/tagout or transmitter power reduction, to minimize worker exposure to EME.*

8. Use of a Personal Protective Monitor (PPM): When working around antennas, Sitesafe strongly recommends the use of a PPM. Wearing a PPM will properly forewarn the individual prior to entering an RF exposure area.

Keep a copy of this report available for all persons who must access the site. They should read this report and be aware of the potential hazards with regards to RF and MPE limits.

Additional Information

Additional RF information is available at the following sites:
https://www.fcc.gov/general/radio-frequency-safety-0
https://www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety

OSHA has additional information available at:
https://www.osha.gov/SLTC/radiofrequencyradiation/index.html