Full Size or Largest Size Plans

Site Plan

Landscape Plan

Elevations

Radio Frequency Exposure

RF Safety and NIER Analysis Report

4/27/2020

Site: PHO Cincinnati

Scottsdale, AZ

Prepared for: Verizon

16-DR-2020
05/01/20

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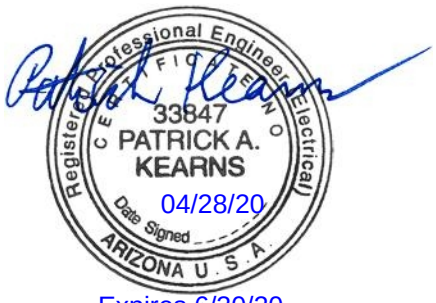
1 Certification

This report, prepared by Pramira, Inc. for **Verizon**, is intended to document compliance and evaluate power density levels as outlined in the report. The computations, analysis, and resulting report and conclusions were based on applicable FCC guidelines and regulations for maximum permissible exposure to humans consistent with FCC OET Bulletin 65, Edition 97-01.

Additionally, Pramira, Inc. certifies that the assumptions are valid, and that the data used within Pramira control are accurate, including information collected as part of Pramira field surveys. Pramira, Inc. does not however certify the accuracy or correctness of any data provided to Pramira, Inc. for this analysis and report by Verizon or other third parties working on behalf of Verizon.

I certify that the attached RF exposure analysis and report is correct to the best of my knowledge, and all calculations, assumptions and conclusions are based on generally acceptable engineering practices:



Expires 6/30/20

Patrick A. Kearns, P.E.

Report Prepared By: Mohamed Ahmed, 04/27/2020
Report Reviewed By: Mike Arnold, 04/28/2020

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2 Executive Summary

This report provides the results of an RF power density analysis performed for **Verizon** at site **PHO Cincinnati** in accordance with the Federal Communications Commission (FCC) rules and regulations for RF emissions described in OET Bulletin 65, Edition 97-01.

This report addresses RF safety for two classified groups defined by OET Bulletin 65: Occupational/ Controlled and General Population/ Uncontrolled. Based on the analysis, this site will be **Compliant** with FCC rules and regulations and Verizon's Signage and Barrier Policy if the mitigation details provided in Table 1 are implemented.

Final Compliant Configuration							
	GUIDELINES	**NOTICE**	**CAUTION**	**WARNING**	**NOC INFO**	**BARRIER/MARKER**	
Access Point(s)	☒ [1] *	☐ [ ]	☐ [ ]	☐ [ ]	☒ [1] *	☐	
Alpha	☐ [ ]	☐ [ ]	☐ [ ]	☐ [ ]	☐ [ ]	☐	
Beta	☐ [ ]	☐ [ ]	☐ [ ]	☐ [ ]	☐ [ ]	☐	
Gamma	☐ [ ]	☐ [ ]	☐ [ ]	☐ [ ]	☐ [ ]	☐	

NOTE: The table represents either the signage/barriers installed / removed OR items required by the market (if mitigation is not installed by consultant/vendor).

**** These RF signs should be posted at VZW Equipment's enclosure door. (See drawing in Section 5.2).***

Specialty Sign Detail

Location	**N/A**
Access Point	**N/A**
Alpha	**N/A**
Beta	**N/A**
Gamma	**N/A**

NOTE: The tables above represent EXISTING compliance items implemented at this location.

Notes/ Additional Compliance Requirements(s):
Mitigation is required per the Signage/ Barrier Diagram.

Table 1: Mitigation Requirements for Compliance

2.1 Conclusion and Recommendations

- The results of the analysis indicate that the power density levels in the generally accessible areas at the **Ground** Level will not exceed the FCC's MPE limit for General Population.
- The maximum theoretical % MPE of the Occupational Limit is **0.1%** directly in front of the antenna beams at the Ground Level.
- NOC and Guidelines Signs need to be posted at VZW Equipment's enclosure door. These access points to these areas need to remain locked at all times.
- This site will operate in general compliance with FCC OET Bulletin 65 and Verizon's signage and barrier policy if the mitigation requirements outlined in the Executive Summary are implemented.

Note: Modifications to the site; and/or increases in channel counts or power levels exceeding those listed in this report will require additional evaluation to determine compliance.

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3 Introduction

The purpose of this analysis and report is to evaluate the cumulative power density levels of all non-excluded antennas located on the site and identify any areas of concern that require mitigation. This report also assesses the site's compliance with FCC OET Bulletin 65; "Guidelines for Human Exposure to Radio-frequency Electromagnetic Fields".

The power density simulation performed for this site utilized RoofMaster® analysis software. All antennas were assigned an operating frequency and transmit power and were deemed to be operating at 100% of their rated output power.

3.1 Site Description

- **Site Name:** PHO Cincinnati
- **Street Address:** South side - Jomax Road west of 87th St
Scottsdale, AZ 85255
- **Latitude:** 33° 43' 35.94" N
- **Longitude:** 111° 53' 35.7504" W
- **Structure Type**: Utility Pole
- **Structure Height**: ± 48' AGL
- **Co-Locators/ Other Antennas**: N/A
- **BTS Equipment Location**: The VZW radio equipment is located on the Ground.

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3.2 Site Configuration Being Modeled

- This is a utility pole application where Verizon antennas are mounted to pipes which are attached to an existing pole.
- This is a 3-sector site supporting LTE in the 700, 850, 1900 and 2100 MHz bands for all sectors. All LTE assumes 4x4 MIMO.
- The antennas' rad center for all sectors is (44') based on the CDs and RFDS. These values must be verified on the site audit for the post study.
- All technologies were evaluated assuming the maximum number of channels and were running at maximum power 100% of the time.

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4 Predictive Analysis Details

For purposes of this analysis, RoofMaster® was configured to provide an output based on the appropriate MPE limit(s) published in the FCC's guidelines. The antenna information was loaded into RoofMaster®, an MPE predictive analysis tool by Waterford Consultants, LLC.

4.1 Analysis Locations

Number of Elevations Analyzed: 1

- Ground Level

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4.2 Antenna Inventory

The following table contains the technical data used to simulate the power density that may be encountered with all antennas simultaneously operating at full rated power with the exception of any excluded antennas cited in this document. If co-locators' antennas exist and specific antenna details could not be secured, generic antennas, frequencies, and transmit powers were used for modeling. The assumptions used are based on past experience with communications carriers.

ID	Name	(MHz) Freq	Trans Power	Trans Count	Other Loss	Calc Power	Mfg	Model	Ground Z (ft)	Type	(ft) Aper	dBd Gain	BWdth	Orientation
VZ Alpha_Ant1	L700	730	40.0	2	0.5	71.3	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	13.2	65	10
VZ Alpha_Ant1	L850	880	40.0	2	0.5	71.3	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	13.53	62	10
VZ Alpha_Ant1	L1900	1965	20.0	4	0.5	71.3	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	15.17	66	10
VZ Alpha_Ant2	L700	730	40.0	2	0.5	71.3	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	13.2	65	10
VZ Alpha_Ant2	L850	880	40.0	2	0.5	71.3	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	13.53	62	10
VZ Alpha_Ant2	L2100	2110	50.0	4	0.5	178.3	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	15.82	62	10
VZ Alpha_Ant2	L2100_3	2110	10.0	4	0.5	35.7	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	15.82	62	10
VZ Beta_Ant1	L700	730	40.0	2	0.5	71.3	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	13.2	65	120
VZ Beta_Ant1	L850	880	40.0	2	0.5	71.3	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	13.53	62	120
VZ Beta_Ant1	L1900	1965	20.0	4	0.5	71.3	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	15.17	66	120
VZ Beta_Ant2	L700	730	40.0	2	0.5	71.3	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	13.2	65	120
VZ Beta_Ant2	L850	880	40.0	2	0.5	71.3	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	13.53	62	120
VZ Beta_Ant2	L2100	2110	50.0	4	0.5	178.3	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	15.82	62	120
VZ Beta_Ant2	L2100_3	2110	10.0	4	0.5	35.7	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	15.82	62	120
VZ Gamma_Ant1	L700	730	40.0	2	0.5	71.3	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	13.2	65	240
VZ Gamma_Ant1	L850	880	40.0	2	0.5	71.3	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	13.53	62	240
VZ Gamma_Ant1	L1900	1965	20.0	4	0.5	71.3	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	15.17	66	240
VZ Gamma_Ant2	L700	730	40.0	2	0.5	71.3	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	13.2	65	240
VZ Gamma_Ant2	L850	880	40.0	2	0.5	71.3	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	13.53	62	240
VZ Gamma_Ant2	L2100	2110	50.0	4	0.5	178.3	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	15.82	62	240
VZ Gamma_Ant2	L2100_3	2110	10.0	4	0.5	35.7	COMMSCOPE	NHH-65C-R2B	44.0	Hexport	8.0	15.82	62	240

The antenna Z-heights listed above are referenced to Ground level.

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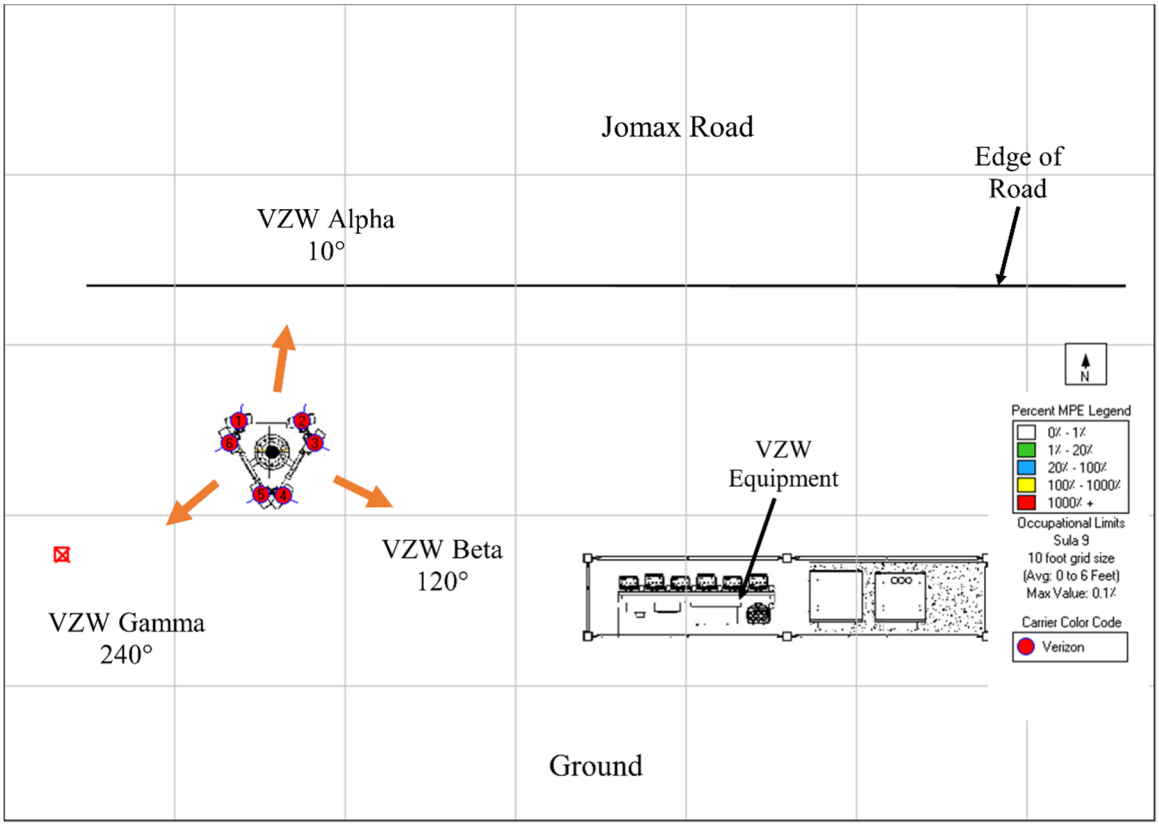
4.3 RF Emissions Diagram(s) - All Transmitters

The following Diagram(s) represent the theoretical spatially averaged Maximum Permissible Exposure (MPE) percentages that are expected for each study's elevation. An additional 1% Occupational MPE Limit (5% General Population MPE limit) is included to demonstrate where Verizon is a significant contributor to the accessible areas where multiple carriers' transmitters are may be present.

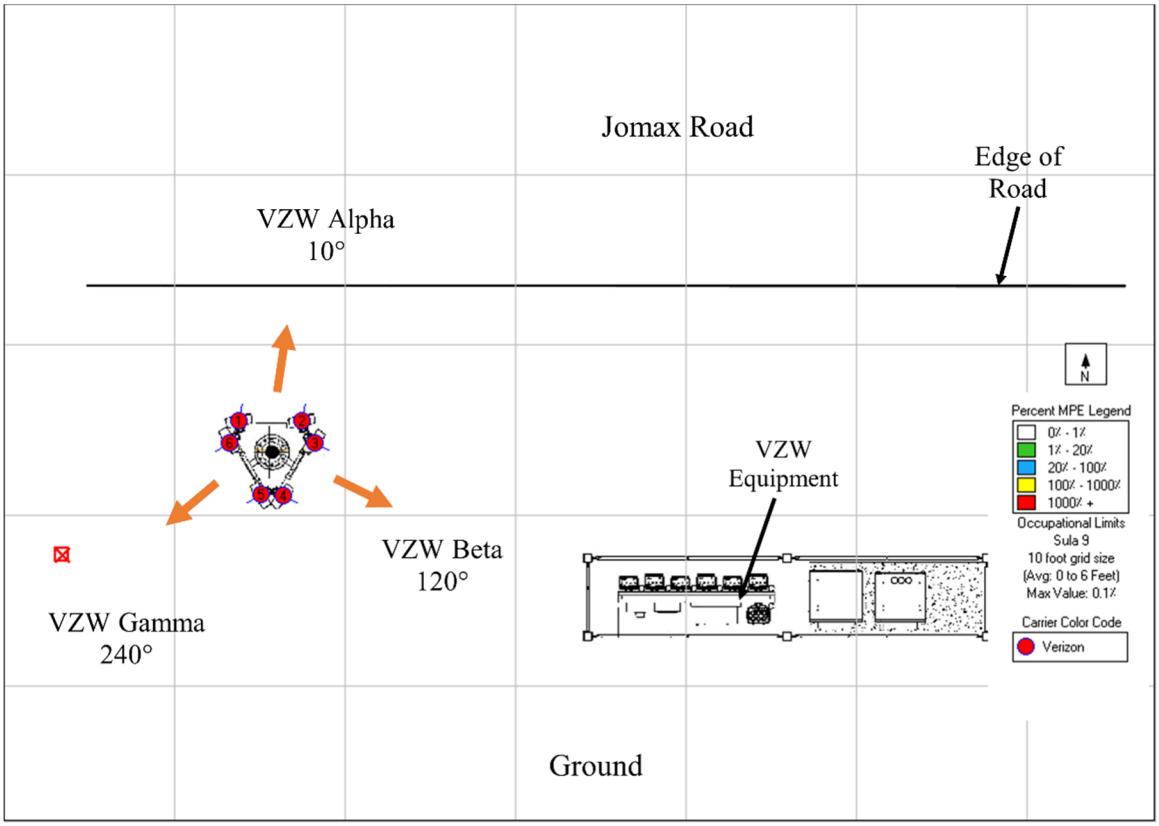
Reference Plane: Ground Level



4.4 RF Emissions Diagram(s) - Verizon Transmitters *Only*

The following Diagram(s) represent the theoretical spatially averaged Maximum Permissible Exposure (MPE) percentages that are expected for each study's elevation. An additional 1% Occupational MPE Limit (5% General Population MPE limit) is included to demonstrate where Verizon is a significant contributor to the accessible areas where multiple carriers' transmitters are may be present.

Reference Plane: Ground Level



5 Signage/ Mitigation

5.1 Signage/ Barrier Detail

Final Compliant Configuration							
	GUIDELINES	**NOTICE**	**CAUTION**	**WARNING**	**NOC INFO**		**BARRIER/MARKER**
Access Point(s)	☒ [1] *	☐ [ ]	☐ [ ]	☐ [ ]	☒ [1] *	☐	
Alpha	☐ [ ]	☐ [ ]	☐ [ ]	☐ [ ]	☐ [ ]	☐	
Beta	☐ [ ]	☐ [ ]	☐ [ ]	☐ [ ]	☐ [ ]	☐	
Gamma	☐ [ ]	☐ [ ]	☐ [ ]	☐ [ ]	☐ [ ]	☐	

NOTE: The table represents either the signage/barriers installed / removed OR items required by the market (if mitigation is not installed by consultant/vendor).

**** These RF signs should be posted at VZW Equipment's enclosure door. (See drawing in Section 5.2).***

Specialty Sign Detail

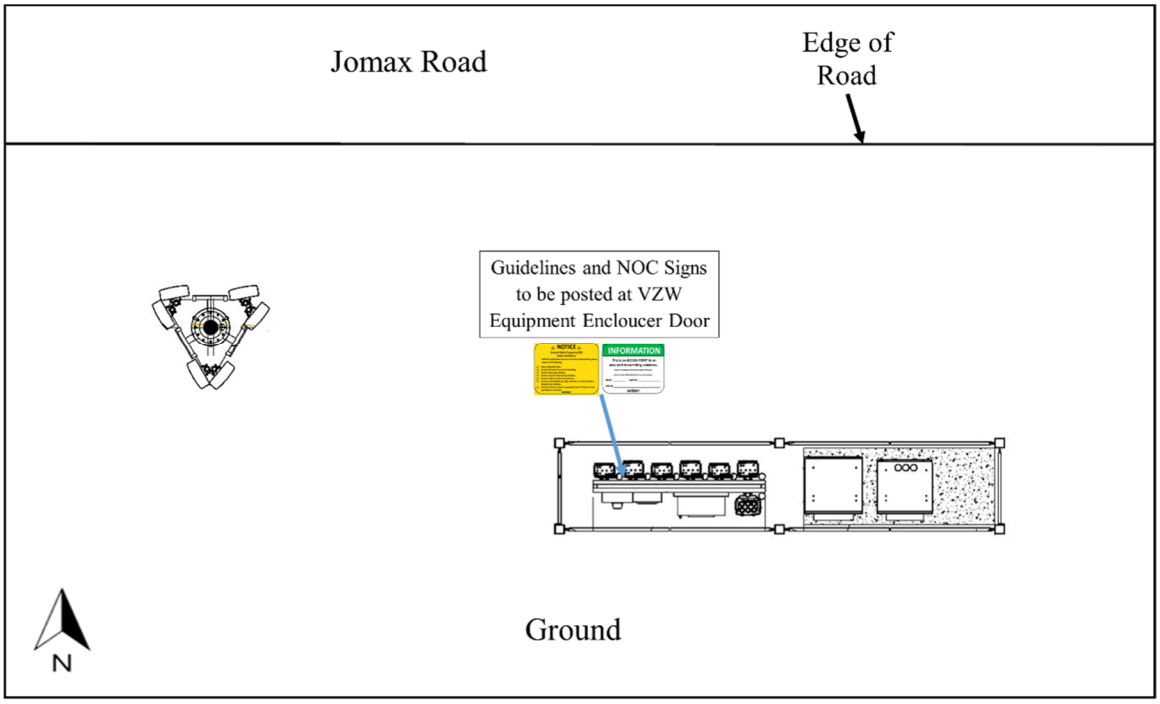
Location	
Access Point	**N/A**
Alpha	**N/A**
Beta	**N/A**
Gamma	**N/A**

NOTE: The tables above represent EXISTING compliance items implemented at this location.

Notes/ Additional Compliance Requirements(s):
Mitigation is required per the Signage/ Barrier Diagram.

Table 4: Mitigation Requirements for Compliance

5.2 Signage/ Barrier Diagram



6 Conclusions and Recommendations

- The results of the analysis indicate that the power density levels in the generally accessible areas at the **Ground** Level will not exceed the FCC's MPE limit for General Population.
- The maximum theoretical % MPE of the Occupational Limit is **0.1%** directly in front of the antenna beams at the Ground Level.
- NOC and Guidelines Signs need to be posted at VZW Equipment's enclosure door. These access points to these areas need to remain locked at all times.
- This site will operate in general compliance with FCC OET Bulletin 65 and Verizon's signage and barrier policy if the mitigation requirements outlined in the Executive Summary are implemented.

Note: Modifications to the site; and/or increases in channel counts or power levels exceeding those listed in this report will require additional evaluation to determine compliance.

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7 Appendix A: FCC Compliance and RF Safety Policies

In August of 1997, the FCC published OET Bulletin 65 Edition 97-01 to regulate methods for evaluating compliance with FCC guidelines for human exposure to radiofrequency (RF) electromagnetic fields. The FCC guidelines for human exposure to RF electromagnetic fields incorporate two categories of limits; namely "Controlled" (a.k.a. Occupational) and "Uncontrolled" (a.k.a. General Public). The guidelines offer suggested methods for evaluating fixed RF transmitters to ensure that the controlled and uncontrolled limits deemed safe by the FC for human exposure are not exceeded.

OET Bulletin 65 recommended guidelines are intended to allow an applicant to "make a reasonably quick determination as to whether a proposed facility is in compliance with the limits." In addition, the guidelines offer alternate supplementary considerations and procedures such as field measurements and more detailed analysis that should be used for multiple emitter situations.

These guidelines define RF as emissions in the frequency range of 300 kHz to 100 GHz. The FCC define Maximum Permissible Exposure (MPE) limits within this frequency range based on limits recommended by the National Council on Radiation Protection and Measurement, the Institute of Electrical and Electronics Engineers (IEEE), and by the American National Standards Institute (ANSI).

The specific MPE limits defined by the FCC are as follows:

Limits for Occupational/Controlled Exposure				
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	6
300 - 1,500	-	-	f/300	6
1,500 - 100,000	-	-	5	6

Limits for General Population/Uncontrolled Exposure				
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*	30
3.0 - 30	842/f	2.19/f	180/f^2*	30
30 - 300	27.5	0.073	0.2	30
300 - 1,500	-	-	f/1500	30
1,500 - 100,000	-	-	1	30

f = frequency *Plane-wave equivalent power density

The FCC states that "Occupational/ Controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for Occupational/ Controlled exposure also apply in situations when an individual is transient through a location where Occupational/ Controlled limits apply provided he or she is made aware of the potential for exposure."

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For General Population/ Uncontrolled limits, the FCC states that "General Population/ Uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not fully be aware of the potential for exposure or cannot exercise control over their exposure."

For purposes of this analysis, all limits are evaluated against the Power Density limits.

Typical guidelines for determining whether Occupational/ Controlled limits can be applied include insuring the environment (such as a rooftop) as limited/controlled access via locked doors or physical barrier that are preferably controlled by a landlord that is aware of the situation and can inform anyone going through the locked door of the existence of the RF emissions. Such notification/awareness is typically accomplished by means of signage on the door, or other access to the area of concern, as well as signage on or near the antennas. Examples of such signs include the following:

GUIDELINES	NOTICE	CAUTION	WARNING
This sign will inform anyone of the basic precautions to follow when entering an area with transmitting radiofrequency equipment.	This sign indicates that RF emissions may exceed the FCC General Population MPE limit.	This sign indicates that RF emissions may exceed the FCC Occupational MPE limit.	This sign indicates that RF emissions may exceed at least 10x the FCC Occupational MPE limit.
			

NOC INFORMATION	
Information signs are used as a means to provide contact information for any questions or concerns. They will include specific cell site identification information and the Verizon Wireless Network Operations Center phone	

Standards for when to use each of the above signs for Occupational situations are as follows:

No sign required: <20% of Occupational MPE
Blue Sign, Notice: 20% to <100% of MPE
Yellow Sign, Caution: 100% to <1000% of MPE
Red Sign, Warning: ≥1000% of MPE

All MPE references are to the FCC Occupational limits.

8 Appendix B: Overview of RoofMaster® Functions and Assumptions

RoofMaster® is a RF Compliance software package designed to enable the analysis, assessment and mitigation of communications sites with respect to human exposure to radiofrequency electromagnetic fields.

RoofMaster® was developed in 2008 by Waterford Consultants to support compliance assessments performed at single and multi-operator wireless locations throughout North America and has been in service since 2008. Real-world experience in evaluating thousands of base station installations is reflected in the RoofMaster® design approach. This document provides a guide for creating simulations of RF hazard conditions through the characterization of antenna systems and site features and through FCC-specified computational analysis.

On any structure, one may encounter antennas installed by wireless service providers, public safety and other FCC-licensed and unlicensed operators. Siting constraints have resulted in diverse and complex environments accessible to people performing a variety of activities around these antennas. RoofMaster® supports the characterization of these locations to convey important information regarding RF sources and accessible areas necessary to evaluate the potential for human exposure to hazardous levels of RF energy.

RoofMaster® supports the depiction of communications sites through the display of construction drawing or aerial photography image files as well as providing line drawing tools. These representations are scalable to enable the modeling of any location.

RoofMaster® utilizes a three-dimensional spatial framework consisting of a 1000 x 1000 grid with unlimited vertical dimensions necessary for the positioning of antennas and modeling of RF conditions at each grid point throughout the space. Predictive analysis is performed on a study plane at a specified elevation. The subsequent sections of this guide provide the steps necessary to create a site representation and conduct these studies.

RoofMaster® employs several power density prediction models based on the computational approaches set forth in the Federal Communications Commission's Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields, OET Bulletin 65. This guideline utilizes several antenna and operational parameters in calculating the power density contributions from each emitter at specified points throughout the study space. RoofMaster® enables antennas to be fully defined in site specific aspects as well as through the use of a library of manufacturer data. The parameters include:

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§ Antenna model
§ Radiation patterns
§ Aperture length
§ Gain
§ Beamwidth
§ Antenna radiation center
§ Azimuth
§ Mechanical downtilt
§ Location
§ Frequency
§ Power into antenna

In OET-65, the Cylindrical Model is presented as an approach to determine the spatially averaged power density in the near field directly in front of an antenna. In order to implement this model in all directions, RoofMaster® utilizes the antenna manufacturer horizontal pattern data. Additionally, RoofMaster® incorporates factors that reduce the power density by the inverse square of horizontal and vertical distance beyond the near field region.

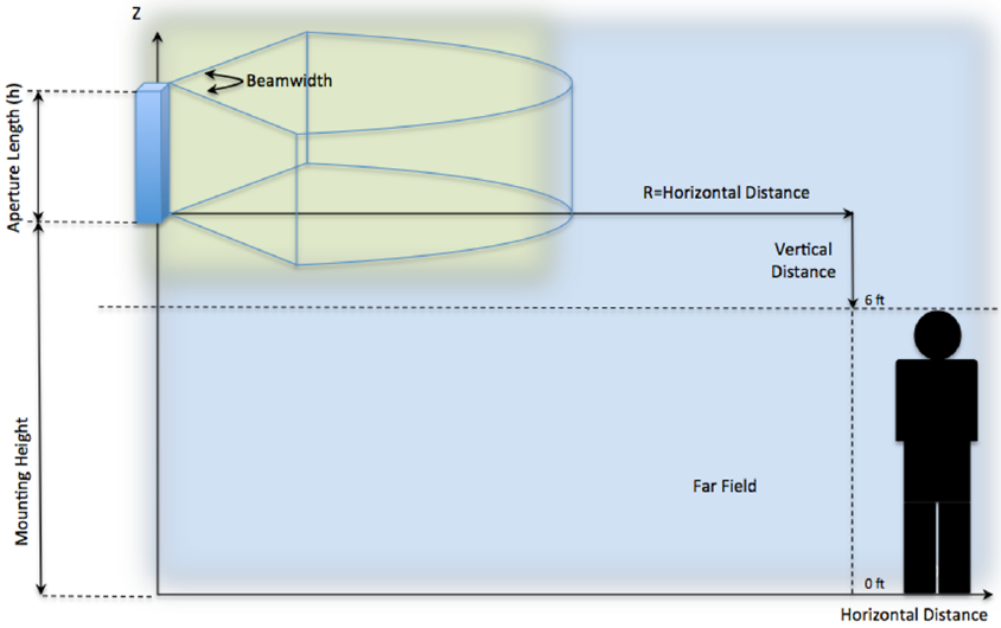
Power density is calculated as follows:

$$S = \left(\left(\frac{360}{Beamwidth} \right) \frac{P_{in} G_H H_r V_r}{2\pi Rh} \right) \frac{\mu W}{cm^2}$$

- S is the spatially averaged power density value
- R is the horizontal distance meters to the study point
- h is the aperture length in meters
- P_{in} is power into the antenna input port in Watts

RoofMaster® Implementation:

- G_H is gain offset to study point as specified in manufacturer horizontal pattern
- P_{in} is adjusted by the portion of the antenna aperture in the 0-6 ft vertical study zone
- H_r accounts for $1/R^2$ Far Field roll off which starts at 2*h
- V_r accounts for 1/ (vertical distance) ^{2} roll off from antenna bottom to the top of the 0-6ft study zone (or antenna top to bottom of 0-6ft study zone)


Z
Beamwidth
Aperture Length (h)
R=Horizontal Distance
Vertical
Distance
6 ft
Mounting Height
Far Field
0 ft
Horizontal Distance

9 References

FCC (1997). "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields"; Federal Communications Commission; Office of Engineering and Technology, OET Bulletin 65, Edition 97-01, August.

Waterford Consultants, LLC. (2008). RoofMaster® User Guide, Waterford Consultants, LLC.

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10 Limited Warranty

Pramira, Inc. warrants that this analysis was performed in good faith using the methodologies and assumptions covered in this report and that data used for the analysis and report were obtained by Pramira, Inc. employees or representatives via site surveys or research of Verizon's available information. In the event that specific third-party details were not available, best efforts were made to use assumptions that are based on industry experience of various carriers' standards without violating any confidential information obtained under non-disclosure terms.

Pramira, Inc. also warrants that this analysis was performed in accordance with industry acceptable standards and methods.

There are no other warranties, express or implied, including but not limited to, the implied warranties of merchantability and fitness for a particular purpose, relating to this agreement or to the services rendered by Pramira hereunder. In no event shall Pramira be held liable to Verizon, or to any third party, for any indirect, special, incidental, or consequential damages, including but not limited to loss of profits, loss of data, loss of good will, and increased expenses. In no event shall Pramira be liable to Verizon for damages, whether based in contract, tort, negligence, strict liability, or otherwise, exceeding the amount payable hereunder for the services giving rise to such liability.

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verizon

SITE NAME: PHO_CINCINNATI

DEVELOPMENT REVIEW BOARD
APPROVED
May 21, 2020

SITE ACQUISITION
DESTREE DEVELOPMENT
22831 N. 21ST STREET
PHOENIX, AZ, 85024
PHONE: (602) 349-6930
CONTACT: REG DESTREE

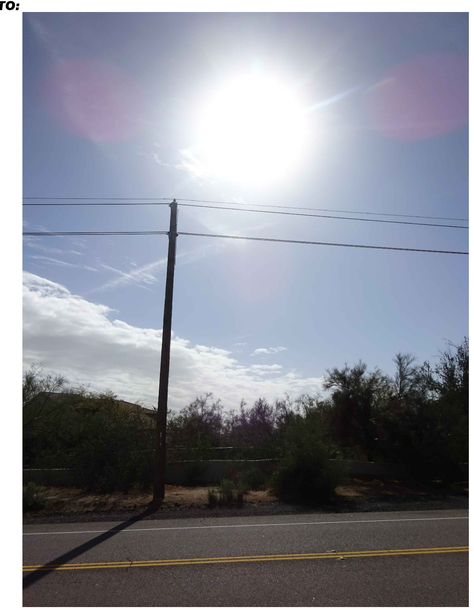
ARCHITECT
YOUNG DESIGN CORP.
10245 E. VIA LINDA, #211
SCOTTSDALE, ARIZONA, 85258
PHONE: (480) 451-9609
CONTACT: MATTHEW YOUNG

SURVEYOR
RLF CONSULTING, LLC
2165 W. PECOS ROAD, #5
CHANDLER, ARIZONA, 85224
PHONE: (480) 445-9189
CONTACT: RYAN FIDLER

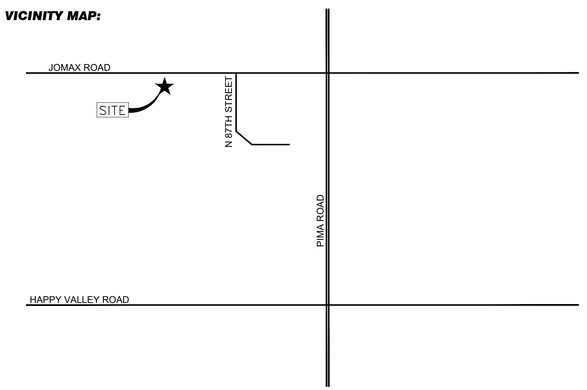
LESSOR / OWNER
CITY OF SCOTTSDALE R.O.W.
.
SCOTTSDALE, ARIZONA, 75251
PHONE: (480) 312-2953
CONTACT: KEITH NIEDERER

LESSEE / COMPANY
VERIZON WIRELESS
126 W. GEMINI DRIVE
TEMPE, ARIZONA, 85283
PHONE: (602) 679-5511
CONTACT: MARCI BRAWLEY

SITE PHOTO:



VICINITY MAP:



SITE COORDINATES:

LATITUDE	: 33° 43' 35.940" NORTH (NAD83)
LONGITUDE	: 111° 53' 35.750" WEST (NAD83)
ELEVATION	: 2172.4' A.M.S.L. (NAVD88)

NORTH

DRIVING DIRECTIONS:

FROM TEMPE OFFICE; TAKE WESTBOUND US-60, MERGE ONTO NORTHBOUND AZ LOOP-101 PIMA FREEWAY. TAKE EXIT FOR PIMA RD. NORTH, & TURN RIGHT (EAST), HEAD (NORTH) ON PIMA ROAD. THEN TURN LEFT (WEST) ONTO JOMAX PARKWAY, AND PROCEED TO SITE ON SOUTH SIDE OF STREET.

ZONING COMPLIANCE:

LOCAL JURISDICTION:	CITY OF SCOTTSDALE
ASSESSORS PARCEL:	R.O.W.
ZONING:	N/A
USE:	TELECOMMUNICATION FACILITY
PARENT PARCEL AREA:	N/A
PROPOSED LEASE AREA:	.... SQ. FT.
PARKING REQ'D:	0
PARKING PROVIDED:	1

GENERAL COMPLIANCE:

HVAC USED ON THIS STRUCTURE IS NOT INTENDED FOR HUMAN COMFORT ITS USE IS SOLELY FOR ELECTRONIC EQUIPMENT COOLING.

DEVELOPMENT AND USE OF THIS SITE WILL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES.

PROVIDE STREET ADDRESS IDENTIFICATION PER MUNICIPAL REQUIREMENTS.
THE USE OF THIS SITE WILL GENERATE NO TRASH.
THIS PROJECT DOES NOT REQUIRE WATER OR SEWER
THIS PROJECT REQUIRES PERMANENT POWER & TELEPHONE CONNECTION

A.D.A. COMPLIANCE:

FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. LANDINGS AND EXITS SHALL COMPLY WITH THE APPLICABLE BUILDING CODE.

F.C.C. COMPLIANCE:

ALL NEW ANTENNAS SHALL BE IN COMPLIANCE WITH ALL FEDERAL COMMUNICATIONS COMMISSION (FCC) REGULATIONS, INCLUDING THOSE PROTECTING THE PUBLIC HEALTH AND THOSE PROTECTING HISTORIC DISTRICTS.

PROJECT DESCRIPTION:

THE PROJECT CONSISTS OF THE INSTALLATION AND OPERATION OF ANTENNAS AND ASSOCIATED EQUIPMENT FOR COMPANY'S WIRELESS TELECOMMUNICATIONS NETWORK. FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.

THIS FACILITY CONSISTS OF OUTDOOR EQUIPMENT CABINETS, TO HOUSE RADIO EQUIPMENT. NO HAZARDOUS MATERIAL WILL BE STORED WITHIN THE FACILITY.

ALL EXITS SHALL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF KEYS OR SPECIAL KNOWLEDGE. MANUALLY OPERATED EDGE OR SURFACE MOUNTED FLUSH BOLTS ARE PROHIBITED.

NEW LESSEE ANTENNAS & ASSOCIATED EQUIPMENT ON APS UTILITY POLE

NEW LESSEE RUSTED METAL SCREENING

NEW LESSEE ELECTRICAL SERVICE

NEW LESSEE OUTDOOR EQUIPMENT CABINET
CABINET CALCULATIONS:

POWER CABINET -	64.8 S.F.
SUPPORT CABINET -	64.6 S.F.
I.L.C. -	12.5 S.F.
TOTAL:	142.1 S.F.

SHEET INDEX:

CLIENT

verizon
126 W. GEMINI DR.
TEMPE, AZ 85283

INTERNAL REVIEW	DATE
CONSTRUCTION SIGNATURE	
RF SIGNATURE	
FACILITIES SIGNATURE	
REAL ESTATE SIGNATURE	

PLANS PREPARED BY
young design corp
architecture / project management
10245 E. Via Linda, Scottsdale, AZ 85258
ph: 480 451 9609 fax: 480 451 9608
e mail: corporate@ydcoffice.com

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REGISTERED LANDSCAPE ARCHITECT 19382 RONALD C. YOUNG 5/06/20 ARIZONA U.S.A.

EXP. 12/31/2021

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PRELIMINARY UNLESS SIGNED

NO.	DATE	DESCRIPTION
1	02/15/2020	PRELIMINARY REVIEW
2	05/06/2020	SHIFT IN LEASE AREA

ARCHITECTS JOB NO.
YDC-9137

PROJECT INFORMATION

PHO CINCINNATI

JOMAX RD. & 87TH STREET
SCOTTSDALE, ARIZONA, 85266

SHEET TITLE

TITLE SHEET

JURISDICTION APPROVAL

SHEET NUMBER

T-1

FLOOD ZONE DESIGNATION

THE PROPOSED EASEMENT AREA SHOWN HEREON APPEARS TO BE WITHIN FLOOD ZONE "X" AS DELINEATED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY FIRM MAP NO. 04013C1310L DATED 10/16/13.

FLOOD ZONE "X" IS DEFINED AS: AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN; DETERMINED TO BE OUTSIDE THE 1% AND 0.2% ANNUAL CHANCE FLOODPLAINS.

PARENT PARCEL LEGAL DESCRIPTION

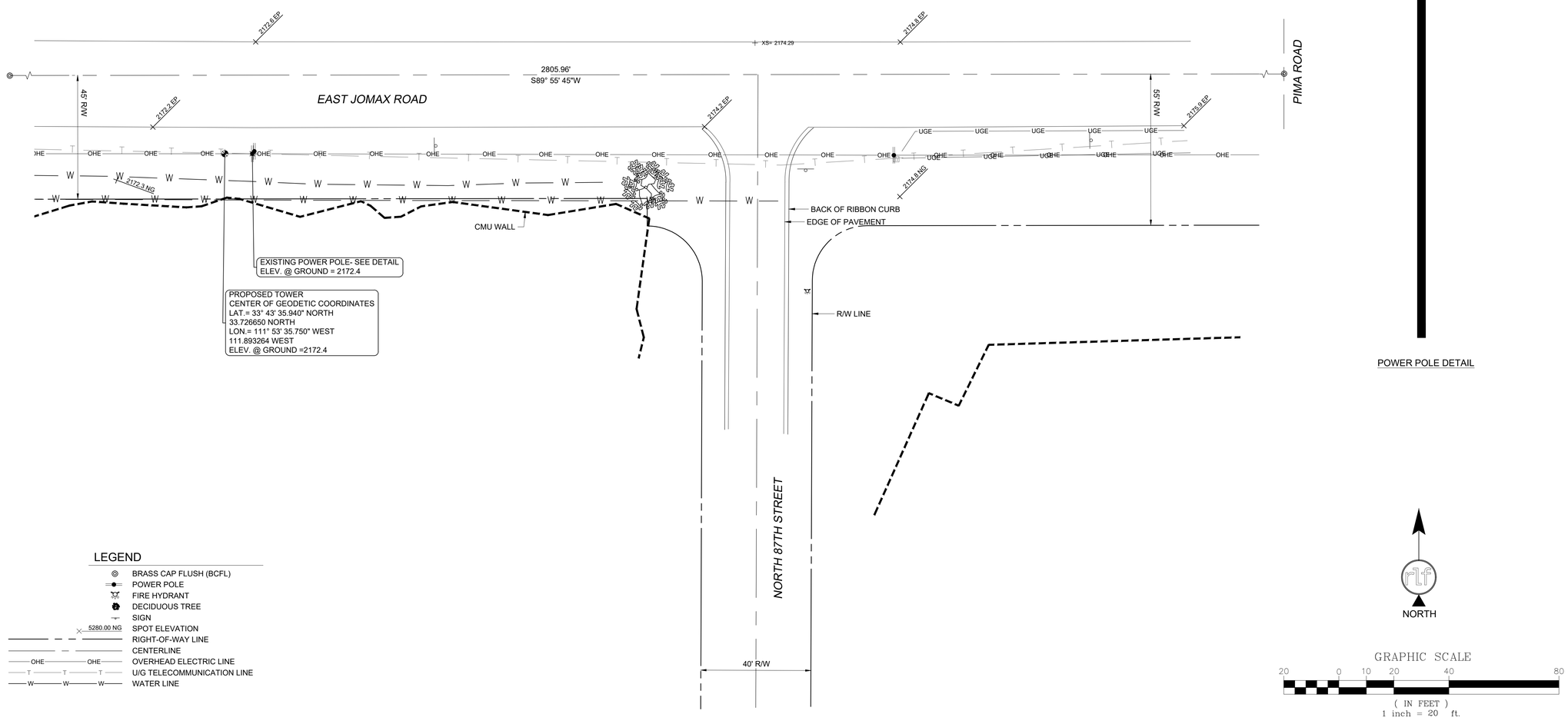
MARICOPA COUNTY, CITY OF SCOTTSDALE RIGHT OF WAY

SURVEYOR NOTES

1. A TITLE REPORT WAS NOT PROVIDED AT THE TIME OF THE SURVEY.
2. SURVEYOR HAS NOT PERFORMED A SEARCH OF PUBLIC RECORDS TO DETERMINE ANY DEFECT IN TITLE.
3. THE BOUNDARY SHOWN HEREON IS PLOTTED FROM RECORD INFORMATION AND DOES NOT CONSTITUTE A BOUNDARY SURVEY OF THE PROPERTY.
4. SURVEYOR DOES NOT GUARANTEE THAT ALL UTILITIES ARE SHOWN OR THEIR LOCATIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND DEVELOPER TO CONTACT BLUE STAKE AND ANY OTHER INVOLVED AGENCIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. REMOVAL, RELOCATION AND/ OR REPLACEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR.

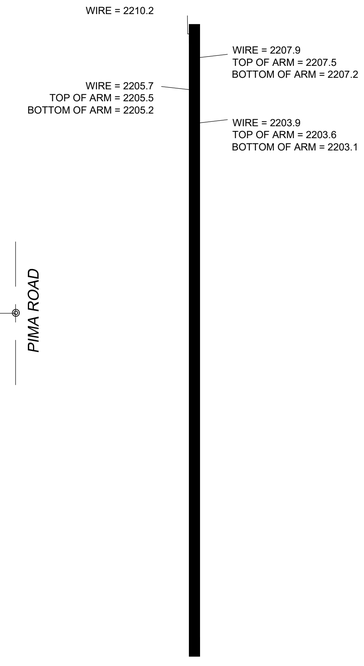
PROJECT META DATA

1. ELEVATIONS SHOWN HEREON ARE REPRESENTED IN *NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)* ESTABLISHED FROM GPS DERIVED ELLIPSOID HEIGHTS, APPLYING GEOID 09 SEPARATIONS CONSTRAINING TO NGS CORS STATIONS PROVIDED IN THE "ONLINE POSITIONING USER SERVICE" (OPUS) SOLUTION FOR THIS SPECIFIC SITE.
2. BEARINGS SHOWED HEREON ARE BASED UPON U.S. STATE PLANE NAD83 COORDINATE SYSTEM *ARIZONA STATE PLANE COORDINATE ZONE CENTRAL*, DETERMINED BY GPS OBSERVATIONS.
3. FIELD WORK FOR THIS PROJECT WAS PERFORMED ON 02/03/20.



LEGEND

- BRASS CAP FLUSH (BCFL)
- POWER POLE
- FIRE HYDRANT
- DECIDUOUS TREE
- SIGN
- 5280.00 NG — SPOT ELEVATION
- RIGHT-OF-WAY LINE
- CENTERLINE
- OHE — OVERHEAD ELECTRIC LINE
- T — U/G TELECOMMUNICATION LINE
- W — WATER LINE



POWER POLE DETAIL

verizon
126 W. GEMINI DR.
TEMPE, AZ 85283

young design corp
architecture / project management
10245 E. Via Linda, Scottsdale, AZ 85258
ph: 480 451 9609 fax: 480 451 9608
e mail: corp@ydcoffice.com

FIELD BY:	JMM
DRAWN BY:	SKN
CHECKED BY:	ABM

REVISIONS

NO.	DATE	DESCRIPTION
3	04/24/20	REVISION
2	04/01/20	REVISION
1	02/09/20	PRELIMINARY

RLF CONSULTING
LAND SURVEY • MAPPING SOLUTIONS
1214 N. STADEM DR. • TEMPE AZ 85281
WWW.RLFCONSULTING.COM • 480-445-9189

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
44007
RYAN L FIDLER
04/17/20
ARIZONA U.S.A.

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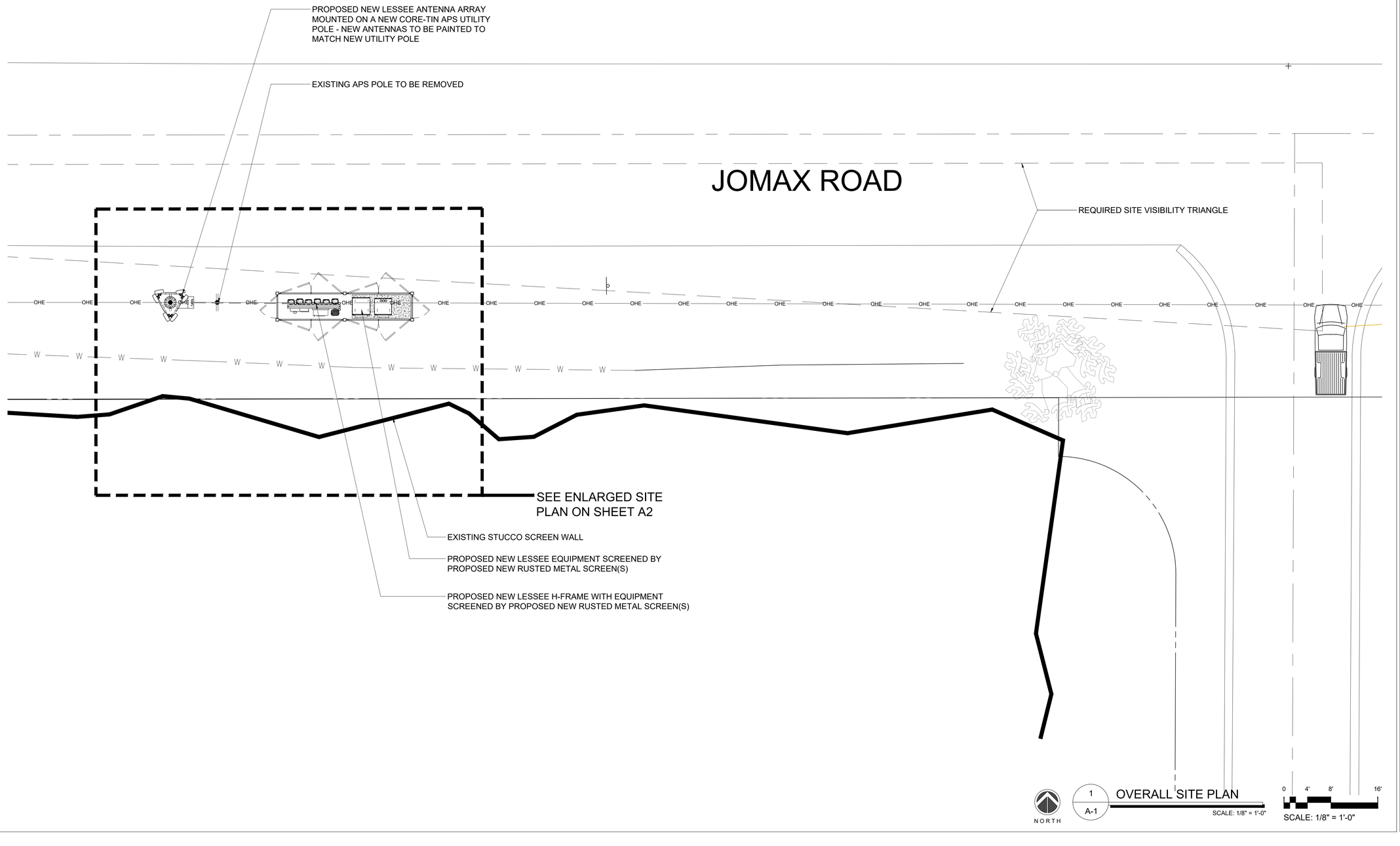
PROJECT No.
090061784

SITE NAME:
PHO CINCINATTI

SITE ADDRESS:
E JOMAX RD & N 87TH ST
SCOTTSDALE, AZ 85266

SHEET TITLE:
TOPOGRAPHIC SURVEY

SHEET NO.	REVISION:
LS-1	0



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verizon

126 W. GEMINI DR.
TEMPE, AZ 85283

INTERNAL REVIEW	DATE
CONSTRUCTION SIGNATURE	
RF SIGNATURE	
FACILITIES SIGNATURE	
REAL ESTATE SIGNATURE	

PLANS PREPARED BY

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10245 E. Via Linda, Scottsdale, AZ 85258
ph: 480 451 9609 fax: 480 451 9608
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EXP. 12/31/2021

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NO.	DATE	DESCRIPTION
1	02/15/2020	PRELIMINARY REVIEW
2	05/06/2020	SHIFT IN LEASE AREA

ARCHITECTS JOB NO.
YDC-9137

PROJECT INFORMATION

PHO CINCINNATI

JOMAX RD. & 87TH STREET
SCOTTSDALE, ARIZONA, 85266

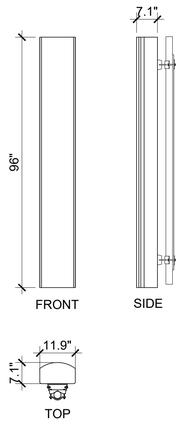
SHEET TITLE

OVERALL SITE PLAN

JURISDICTION APPROVAL

SHEET NUMBER

A-1



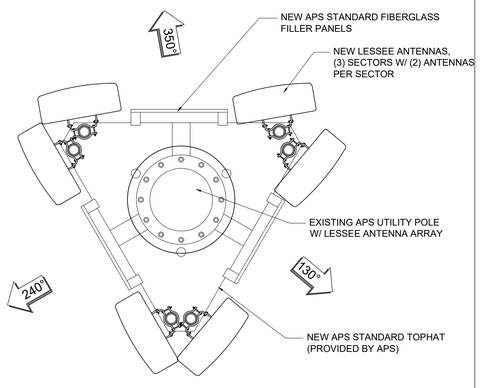
ANTENNA DETAIL | 4

CABLE DISTRIBUTION TABLE					
SECTOR	AZIMUTH	CENTERLINE	QTY.	SIZE	TYPE
ALPHA	130°	44'-0"	-	-	-
BETA	240°	44'-0"	-	-	-
GAMMA	350°	44'-0"	-	-	-

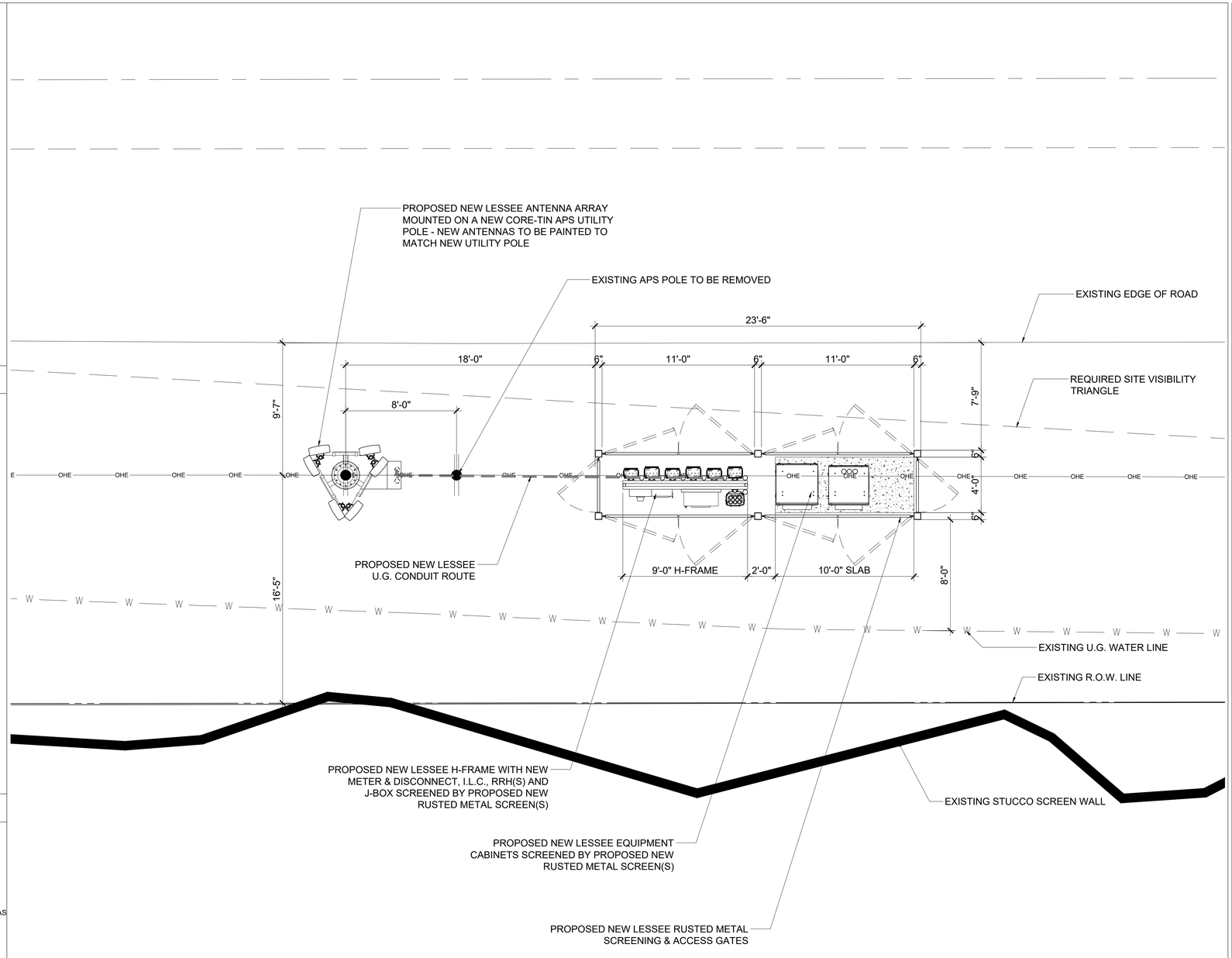
NOTE:
ALL AZIMUTHS SHOWN ARE RELATIVE TO TRUE NORTH, UNLESS NOTED OTHERWISE

*IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY AZIMUTHS DEPICTED HEREIN WITH RF DEPARTMENT PRIOR TO INSTALLING ANTENNAS.

CABLE DISTRIBUTION | 3



ANTENNA CONFIGURATION | 2



NORTH

1 / A-2 ENLARGED SITE PLAN

SCALE: 1/4" = 1'-0"

0 2' 4' 8'

SCALE: 1/4" = 1'-0"

CLIENT

verizon

126 W. GEMINI DR.
TEMPE, AZ 85283

INTERNAL REVIEW	DATE
CONSTRUCTION SIGNATURE	
RF SIGNATURE	
FACILITIES SIGNATURE	
REAL ESTATE SIGNATURE	

PLANS PREPARED BY

young design corp

architecture / project management
10245 E. Via Linda, Scottsdale, AZ 85258
ph: 480 451 9609 fax: 480 451 9608
e mail: corporate@ydcoffice.com

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NO.	DATE	DESCRIPTION
1	02/15/2020	PRELIMINARY REVIEW
2	05/06/2020	SHIFT IN LEASE AREA

ARCHITECTS JOB NO.
YDC-9137

PROJECT INFORMATION

PHO CINCINNATI

JOMAX RD. & 87TH STREET
SCOTTSDALE, ARIZONA, 85266

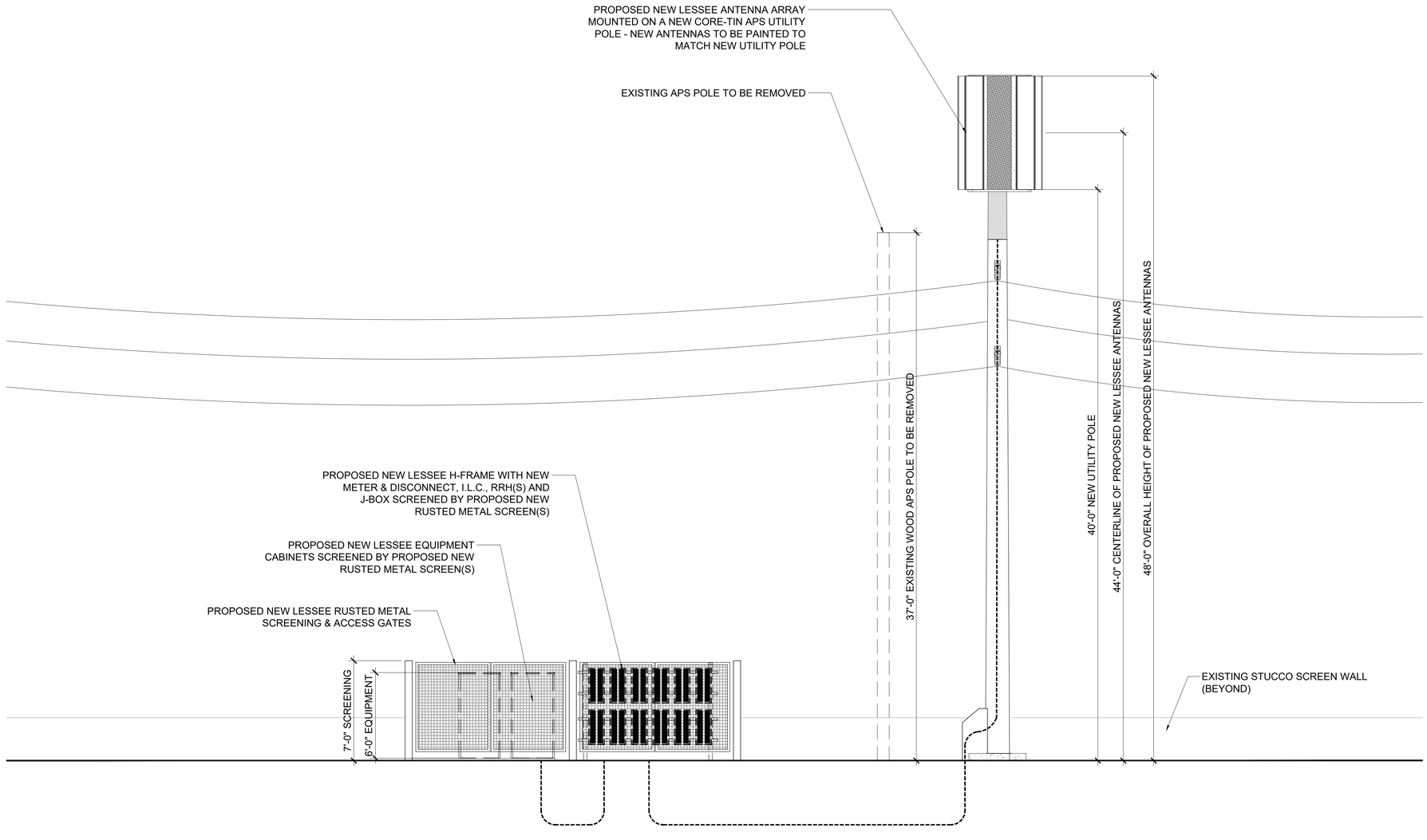
SHEET TITLE

ENLARGED SITE PLAN

JURISDICTION APPROVAL

SHEET NUMBER

A-2



1 / A-3 NORTH ELEVATION

SCALE: 1/4" = 1'-0"

0 2' 4' 8'

SCALE: 1/4" = 1'-0"

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126 W. GEMINI DR.
TEMPE, AZ 85283

INTERNAL REVIEW	DATE
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REGISTERED PROFESSIONAL ARCHITECT
19382
RONALD C. YOUNG
05/06/20
ARIZONA U.S.A.

EXP. 12/31/2021

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2	05/06/2020	SHIFT IN LEASE AREA

ARCHITECTS JOB NO.
YDC-9137

PROJECT INFORMATION

PHO CINCINNATI

JOMAX RD. & 87TH STREET
SCOTTSDALE, ARIZONA, 85266

SHEET TITLE

ELEVATION

JURISDICTION APPROVAL

SHEET NUMBER

A-3