PROJECT TEAM

APPLICANT:

San Ramon, Ca 94583

ARCHITECT/ENGINEER:

Meridian Management LLC

Rodney Barnes

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ZONING CONTACT

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LEASING CONTACT:

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CONSTRUCTION MANAGER:

Vinculums Services 575 Lennon Lane Suite 125 Walnut Creek, CA 94598

GENERAL NOTES

- THIS IS AN UNMANNED TELECOMMUNICATIONS FACILITY FOR THE AT&T WIRELESS NETWORK CONSISTING OF THE INSTALLATION AND OPERATION OF AN ANTENNA AND ASSOCIATED EQUIPMENT ON AN EXISTING METAL LIGHT POLE IN THE PUBLIC RIGHT-OF-WAY, THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
- A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT DRAINAGE, NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL
- CHANGES FROM THE APPROVED PLANS DURING THE COURSE OF CONSTRUCTION SHALL CAUSE CONSTRUCTION TO BE SUSPENDED UNTIL SUCH TIME AS THE PLANS CAN BE AMENDED BY THE DESIGNER AND SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL

CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND 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 CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

- CALIFORNIA CODES
- 2016 CALIFORNIA BUILDING CODE
- 2016 CALIFORNIA MECHANICAL CODE
- 2016 CALIFORNIA PLUMBING CODE 2016 CALIFORNIA ELECTRIC CODE
- 2016 GREEN BUILDING CODE
- 2016 EDITION OF TITLE 24 ENERGY STANDARDS
- ANY LOCAL BUILDING CODE AMENDMENTS TO THE ABOVE
- CITY / COUNTY ORDINANCES
- CITY OF OAKLAND PUBLIC WORKS DEPARTMENT
- GENERAL ORDER 95 (JUNE 2009 EDITION)

SITE IMAGE



DRIVING DIRECTIONS

FROM AT&T WIRELESS OFFICE AT 5001 EXECUTIVE PARKWAY, SAN RAMON, CA

Church of Sou 0

- Use the right 2 lanes to turn right onto Bollinger Canyon Rd
- Use the right 2 lanes to merge onto I-680 N via the slip road to Sacramento

- Continue onto CA-24 W
- Keep left at the fork to stay on CA-24 W
- Continue onto I-980 W
- Use the right lane to take exit 1C for 12th St
- Turn right onto 5th St

- Turn right onto Sunset Dr
- Merge onto I-680 N
- Use the right 2 lanes to take exit 46A for State Route 24 towards
- Oakland/Lafayette

- Use the right lane to merge onto Brush St
- Continue straight to stay on Brush St Turn right onto 7th St
- Turn left onto Union St

0 West Oakland Lot - Lot #211

California Soda Company

Civicorps Job Training Center

AT&T

5001 EXECUTIVE PARKWAY, SAN RAMON, CA 94583

CRAN-RSFR-SFOK7-001

ROW AT 1425 5TH ST, OAKLAND, CA 94607

COUNTY: ALAMEDA

SITE TYPE: WOODEN POLE

FA:14307065 HUB:19 USID:192900

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Megabus Stop

11000		
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0

Trucker Fuel

(D) ABM

Park Gas & Food

CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE



DRAWING SIGN-OFF

Signature	Date
87 05 00003807	
	_
	_
	-
Signature	

PROJECT DESCRIPTION

THIS IS AN UNMANNED TELECOMMUNICATIONS FACILITY FOR THE ATAT WIRELESS NETWORK CONSISTING OF THE INSTALLATION AND OPERATION OF AN ANTENNA AND ASSOCIATED EQUIPMENT ON AN EXISTING WOOD POLE IN THE PUBLIC RIGHT-OF-WAY.

SCOPE OF WORK & SITE COMPLETION CHECKLIST:

REAL ESTATE RF ENGINEER:

OWNER

EQUIPMENT ENGINEER

MW ENG/TRANSPORT

- ANTENNA & ASSOCIATED EQUIPMENT BOXES: INSTALL A NEW TELECOMMUNICATION ANTENNA, NEW 7' BAYONET EXTENSION, [2] EQUIPMENT BOXES, NEW FIBER BOX, AND NEW DISCONNECT/BREAKER BOX ON AN EXISTING WOOD POLE. ALL POLE-MOUNTED EQUIPMENT TO BE INSTALLED ON A GO95 COMPLIANT
- DURABLE PAINT: ANTENNAS, MOUNTING BRACKETS, CABLING, AND RADIO RELAY UNITS TO BE PAINTED SHERWIN WILLIAMS MESA BROWN
- 3. CABLING: CABLING TO BE INSTALLED IN A TIDY MANNER WITHOUT EXCESS CABLE LOOPS
- LOGO REMOVAL: ALL EQUIPMENT LOGOS, OTHER THAN THOSE REQUIRED BY REGULATION (E.G. NODE IDENTIFICATION), SHALL BE PAINTED OVER OR REMOVED, RAISED/DEPRESSED TEXT ON RRUS OR OTHER EQUIPMENT, IF PRESENT, TO BE SANDED OFF OR SIMILARLY REMOVED AND/OR FILLED
- SIGNAGE: FCC MANDATED RF WARNING SIGNAGE SHALL FACE CLIMBING SPACE, OPTIONAL SIGNAGE SHALL FACE OUT TO STREET WHEN PLACED IN FRONT OF OR NEAR A WINDOW. SIGNAGE SHALL FACE TOWARD BUILDING IF THERE IS NO WINDOW.
- UTILITY LINES: PROPOSED UTILITY LINES BETWEEN EXISTING POINT OF CONNECTION TO BE IN CONDUIT ON

SITE INFORMATION

OWNER: APPLICANT

5001 EXECUTIVE PARKWAY SAN RAMON, CA 94583

37.8041800 (NAD 83)

LATTITUDE:

LONGITUDE: -122.2952400 (NAD 83) 5' AMSL

GROUND ELEVATION: ADJACENT APN#: (IFO) 4-75-9

ZONING JURISDICTION: CITY OF OAKLAND

PUBLIC ROW PROPOSED USE: UNMANNED TELECOMMUNICATIONS FACILITY

DO NOT SCALE **DRAWINGS**

CURRENT ZONING:



AT&T Wireless 5001 Executive Parkway San Ramon, CA 94583



Project Architect:



575 LENNON LANE SUITE 125 WALNUT CREEK, CA 94598 T 925.482.8500

90% Zoning Drawings

Drawing Phase:

CRAN-RSFR-SFOK7-001

ROW AT 1425 5TH ST OAKLAND, CA 94607 COUNTY: ALAMEDA

It is a violation of law for any person, unless they are acting under the direction of a licensed Professional Architect/Engineer, to alter this docum

01	09/27/17	Zoning Dwgs 90%						
	-							
		-						
	-							
	-							

Description

Project No.:

Date: 09/27/17 Job No.: Scale: AS SHOWN CAD File:

Designed By: JG Checked: RB

TITLE SHEET

Meridian Management LLC, 2017

GENERAL CONSTRUCTION NOTES

- PLANS ARE INTENDED TO BE DIAGRAMMATIC, OUTLINE ONLY, UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL OBTAIN, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY FIEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
- CONTRACTOR SHALL CONTACT USA (UNDERGROUND SERVICE ALERT) AT (800) 227-2400, FOR UTILITY LOCATIONS, 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION, SITE WORK OR CONSTRUCTION.
- 4. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECEFICALLY INDICATED OTHERWISE. OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CBC / UBC'S REQUIREMENTS REGARDING EARTHQUAKE RESISTANCE, FOR, BUT NOT LIMITED TO, PIPING, LIGHT FIXTURES, CELLING GRID, INTERIOR PARTITIONS, AND MECHANICAL EQUIPMENT. ALL WORK MUST COMPLY WITH LOCAL EARTHQUAKE CODES AND REGULATIONS.
- 6. REPRESENTATIONS OF TRUE NORTH, OTHER THAN THOSE FOUND ON THE PLOT OF SURVEY DRAWINGS. SHALL NOT BE USED TO IDENTIFY OR ARTHREAMMENT OF TRUE NORTH AT THE STEEL THE CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF SIGNEY FOR STANDING AND ANY SURVEYOR'S MARKINGS AT THE SITE OF THE ESTABLISHMENT OF TRUE NOSTH, AND SHALL NOTIFY THE ARCHITECT / ENGINEER PRIOR TO PROCEEDING WITH THE WORK ANY SOLENE AND SHALL NOTIFY THE ARCHITECT / ENGINEER PRIOR TO PROCEEDING WITH THE WORK ANY DISCREPANCY & FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING OF THE WORKING AND THE TRUE NORTH ORIGINATION AS DEPICTED ON THE CIVIL SURVEY. THE CONTRACTOR SHALL ASSUME SOLE LABILITY FOR ANY FAILURE TO NOTIFY THE COPULATION.
- THE BUILDING DEPARTMENT ISSUING THE PERMITS SHALL BE NOTIFIED AT LEAST TWO WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORK, OR AS OTHERWISE STIPULATED BY THE CODE ENFORCEMENT OFFICIAL HAVING JURISDICTION.
- 8. DO NOT EXCAVATE OR DISTURB BEYOND THE PROPERTY LINES OR LEASE LINES, UNLESS OTHERWISE NOTED.
- 9. ALL EXISTING UTILITIES, FACILITIES, CONDITIONS, AND THEIR DIMENSIONS SHOWN ON THE PLAN HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THE ARCHITECT, ENGINEER AND THE OWNER ASSUME NO RESPONSIBILITY WHATSDEVER AS TO THE SUFFICIENCY OF THE ACCURACY OF THE INFORMATION SHOWN ON THE PLANS, OR THE MANARES OF THER REMOVED, OR ADJUSTMENT, CONTRACTORS SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL EXISTING UTILITIES AND FACILITIES PRICE TO START OF CONSTRUCTION, CONTRACTORS SHALL ALSO OBTAIN RROW EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND MERIODS OF REMOVING OR
- 10. CONTRACTOR SHALL VERIFY ALL EXGTING UTILITIES, BOTH HORRONTAL AND VERTICALLY, PRIOR TO THE START OF CONSTRUCTION, ANY DISCREPANCIES OR DOUBLE AS TO THE INTERPRETATION OF FLANS SHOULD BE IMMEDIATELY REPORTED TO THE ARCHITECT. I PAGINEER FOR RESOLUTION AND NOT BUTCHION, AND HOT RUTHER WORKED AND EXPRESSED WITH ARCHITECT OF THE REPORT OF THE PROPERTY OF THE ARCHITECT OF THE PROPERTY OF THE P
- 11. ALL PROPOSED AND EXISTING UTUTY STRUCTURES ON SITE AND IN AREAS TO BE DISTURBED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISH ELEVATIONS PRIOR TO FINAL INSPECTION OF WORK.
- 12. ANY DRAIN AND/OR FIELD TILE ENCOUNTERED / DISTURBED DURING CONSTRUCTION SHALL BE RETURNED TO IT'S ORIGINAL CONDITION PRIOR TO COMPLETION OF WORK, SIZE, LOCATION AND TYPE OF ANY UNDERGROUND URLINES OR IMPROVEMENTS SHALL BE ACCURATELY NOTED AND PLACED ON "AS-BUILT DRAINNIGS BY GENERAL CONTRACTOR, AND SUBJECT TO HE AND FLACE AT COMPLETION OF PROJECT.
- ALL TEMPORARY EXCAVATIONS FOR THE INSTALLATION OF FOUNDATIONS, UTILITIES, ETC., SHALL BE PROPERLY LAID BACK OR BRACED IN ACCORDANCE WITH CORRECT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REQUIREMENTS.
- 14. INCLUDE MISC. ITEMS PER AT&T WIRELESS SPECIFICATIONS

GENERAL NOTES FOR EXISTING CELL SITES

- PRIOR TO THE SUBMISSION OF BIDS. THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SIZE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFRA THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT OT THE ATTENTION OF CONTRACTOR.
- 2. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED, SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISBUFF THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MANIFEMANCE WINDOW SUBLILLY IN LOW TREFFICE PRESONS AFTER MIDDING.
- 4. SINCE THE CELL SITE IS ACTIVE. ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNI RADIATION. FOURMENT SHOULD BE SHUTDOWN PRIDE TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGES PRESIONAL SE PERFOSURE MONITIORS ARE ADVISED TO BE WORN TO A LEEK OF ANY DANGEBUSE EXPOSURE EVEN.
- SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND TIL CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO THAN DRAWNING. SUBCONTRACTOR SHALL URLEE EXISTING TRAYS AND/OR SHALL ADD PROPOSED TRAYS AS NECESSARS, SUBCONTRACTOR SHALL CONTRACTOR.
- SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNERS DESIGNATED LOCATION.

APPLICABLE CODES, REGULATIONS AND STANDARDS:

- SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION.
- 2. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.
- 3. SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS
- AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
 AMERICAN INSTITUTE OF STEEL CONSTRUCTION (ASC), MANUAL OF STEEL CONSTRUCTION, ASD, NINHH EDITION
 TELECOMMUNICATIONS INDUSTRY ASSOCIATION (114), 222-F, STRUCTURAL STANDARD FOR STRUCTURAL ANTENNA TOWER AND ANTENNA
 SUPPOPULS OF STRUCTURES.
- SUPPORTING STRUCTURES

 INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) 81, GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE, AND EARTH SUPFACE POTENTIALS OF A GROUND SYSTEM REE 1100 (1999) RECOMMENDED PRACTICE FOR POWERING AND GROUNDING OF ELECTRICAL EDUPMENT.

 IEEE CREA 21, RECOMMENDED PRACTICES ON SURGE VOLTAGES IN LOW VOLTAGE AC POWER CIRCUITS (FOR LOCATION CATEGORY "CS" AND RESISTANCE PROPERTIES.
- 5. TIA 607 COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS TELCORDIA GR-63 NETWORK EQUIPMENT-BUILDING SYSTEM (PRESS): PHYSICAL PROTECTION TELCORDIA GR-347 CENTRAL OFFICE POWER WIRING TELCORDIA GR-1302 CORMAL INSTALLATION REQUIREMENTS TELCORDIA GR-1303 CORNAL CAREL CONNECTIONS
- ANY AND ALL OTHER LOCAL & STATE LAWS AND REGULATIONS
- FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

GENERAL TRENCHING NOTES

- MAINTAIN 40" MINIMUM COVER FOR ALL ELECTRICAL CONDUITS.

 MAINTAIN 30" MINIMUM COVER FOR ALL TELECOMMUNICATIONS CONDUITS.

 MINIMUM 1" SAND SHADING BELOW CONDUITS, SAND S" COVERNS CON TOP OF CONDUITS REQUIRED.

 ALL ELECTRICAL CONDUITS FROM POWER COMPANY FROM ANY POLE. TRANSFORMER OR OTHER LOCATIONS WILL BE SLURRY BACKFILLED. ALL ELERICAL CONDUITS FROM POWER COMPANY FROM ANY POLE. TRANSPORMER OR OTHER LOCATION IN SIRECTLIFFY TO GRADE AND MILL DOWN 1-1/1/7 TOR AC CAP.

 IN DIRT SLURRY 16 FROM GRADE AND FLE 99% COMPACTION NATIVE STRAND FLANCE
 WARRING LINE TO BE FLACED IN BENCH 12" SOME ALL CONDUITS AND #18 WARRING TAPE ABOVE RING.

GENERAL GROUNDING NOTES

- SHE'R B" ROD, CAD WELD BELOW GRADE.
 GROUND TESTED AT 5 OHMS OR LESS.
 + 85 GROUND AND BOND WELD.
 85 GROUND AND BOND WELD.
 GROUNDS T' FROM FOLE.
 PLACE 3 + 10 GA WREIS FROM TESCO BREAKER TO PEMD OR STRONG BOX.
 WOOD MOLDING, STAFLED EVERT 3" AND AT EACH END,

GENERAL CONDUIT NOTES

ABBREVIATIONS

- ALL CONDUITS WILL BE MANDRELED AND EQUIPPED WITH 3/8" PULL ROPE. SCHEDULE 40 CONDUIT FOR WIDDERGROUND USE. SCHEDULE 60 CONDUIT FOR RISER USE. Z GALYANEED STELL CONDUIT FOR ANY CONDUIT UNDER 3", STUB UP 10" THEN CONVERT TO SCHEDULE 80.

TYPICAL R.O.W. POLE CONSTRUCTION NOTES

- CABLE NOT TO IMPEDE 15" CLEAR SPACE OFF POLE FACE.

- CABLE MOI TO MEDIC IS CILEAR SPACE OF POLE PACE.

 ALL CLIMB STEPS NEXT TO CONDUIT SHALL HAVE EXTENDED STEPS.

 NO BOLT THERADS TO PROTRUDE MORE HAN 1-1/2?

 ALL HOLES IN FOCE LETH FROM REARBANCHEMEN OF CLIMB STEPS TO BE FILED.

 SUPPORT SWEETS UNDER ANTENNA ARM, ALL CARLES MUST TRANSITION ON THE INSDE OR BOTTOM OF THE ARM IND CABLE ON DISCOVERY CONNECTION AT CABLE ON THE ARM IND CABLE ON DISCOVERY OF THE ARM IND CABLE ON DISCOVERY CABLE OF THE ARM IND CABLE ON THE ARM IND CABLE ON DISCOVERY OF THE ARM INDICATED TH

HEIGHT ISOLATED COPPER GROUND BUS

- 5. CONVERT & CONDUIT TO 3" AT BASE OF POLE.
 6. CONTRACTOR TO STUB UP POLE TO "W/ 3" POWER CONDUIT, POWER COMPANY TO CONVERT FROM 3" STUB SCHEDULE 80 TO 2"

- USE 1/2" DIA. CABLE ON ANTENNAS UNLESS OTHERWISE SPECIFIED.
 PLACE GPS ON ARM OF SOUTHERN SKY EXPOSURE AT MINIMUM 6" FROM TRANSMIT ANTENNA WHICH IS 24" AWAY FROM CENTER OF
- POLE.

 10. FILL YOLD AROUND CABLES AT CONDUIT OPENING WITH FOAM SEALANT TO PREVENT WATER INTRUSION.

GENERAL NOTES

LEGEND

								ABV. ACCA ADDY. A.F.F. A.F.G. AIC. ALUM.	ABOVE ANIENNA CABLE COVER ASSEMBLY ADDITIONAL ABOVE FINISHED FLOOR ABOVE FINISHED GRADE AMPERE INTERRUPTING CAPACITY AULMINUM	N.(7) Nf. LB.(#) LF. LG.	INCHIES) INTERIOR POUND(S) LAG BOLTS LINEAR FEET (FOOT) LENGTH LONG(ITUDINAL)
Ç	PROPOSED ANTENNA	(EUROCCINEDADE)	GROUT OR PLASTER	_	- TELCO RUN	•	5/8" X 10'-0" .CU, GND ROD IN TEST WELL 30" MIN, BELOW GRADE.	ALT. ANT. APPROX. ARCH.	ALTERNATE ANTENNA APPROXIMATE(LY) ARCHITECT(URAL)	LP5 MAS. MAX. M.B.	LOW PRESSURE SODIUM MASONRY MASMUM MACHINE BOLT
42	EXISTING ANTENNA		(E) BRICK	T/E	POWER/TELCO RUN		CHEMICAL GROUND ROD	AT, AWG. BATT.	AMPERE TRIP AMERICAN WIRE GAUGE BATTERY	MECH. MFR. MIN.	MECHANICAL MANUFACTURER MINIMUM
\otimes	GROUND ROD		(E) MASONRY			0	(XIT GROUND ROD)	BD. BLDG. BLK.	BOARD BUILDING BLOCK	MISC. MLO	MISCELLANEOUS MAIN LUGS ONLY
	GROUND BUS BAR		CONCRETE		- GROUNDING CONDUCTOR		CADWELD CONNECTION	BLKG. BM. B.N.	BLOCKING BEAM BOUNDARY NAILING	MTD. MTG. MTL. MTS.	MOUNTED MOUNTING METAL MANUAL TRANSFER SWITCH
•	MECHANICAL GRND, CONN.		EARTH		- GROUNDING CONDUCTOR		MECHANICAL CONNECTION	BR. BRKR, BTCW.	BRANCH BREAKER BARE TINNED COPPER WIRE	N PROPOSED	NEUTRAL PROPOSED
\otimes	GROUND ACCESS WELL	600000000000000000000000000000000000000	GRAVEL		- CONDUIT UNDERGROUND	_		BTS. B.O.F. B/U	BASE TRANSMISSION SYSTEM BOTTOM OF FOOTING BACK-UP CABINET	NO.(#)	NATIONAL ELECTRICAL MANUFACTURERS ASSOC. NUMBER NOT TO SCALE OVERHEAD
E	ELECTRIC BOX		PLYWOOD			•	HALO GROUND CONNECTION	CAB. CANI.	CONDUIT CABINET CANTILEVER(ED) CIRCUIT BREAKER	p	ON CENTER OPENING POLE
		22747B2249B3	SAND	-(11)-	FUSE, SIZE AND TYPE AS INDICATED.		CIRCUIT BREAKER	CB, C.I.P, CKT,	CAST IN PLACE CIRCUIT	P/C PCS PH	PRECAST CONCRETE PERSONAL COMMUNICATION SERVICES PHASE
ī	TELEPHONE BOX		WOOD CONT.		SAFETY SWITCH, 2P-240V-60A W/60A FUSES, NEMA 3R	(M)	UTILITY METER BASE	CLG, CLR, COL,	CELING CLEAR COLUMN CONCRETE	PLY. PNLBO PPC PRC	PLYWOOD PANELBOARD POWER PROTECTION CABINET
*	LIGHT POLE		WOOD BLOCKING		ENCLOSURE, SQ D CATALOG NO. H222NRB		OTILITY METER BASE	COL. CONC. CONS. CONST. CONT.	CONSTRUCTION CONSTRUCTION CONTINUOUS	PRI P.S.F.	PRIMARY RADIO CABINET PRIMARY POUNDS PER SQUARE FOOT
0	FND. MONUMENT		STEEL		MANUAL TRANSFER SWITCH, 2P-240V-200A, NO FUSE, NEMA 3R ENCLOSURE	[1000]	TRANSFORMER	DBL.	PENNY (NAILS) DOUBLE DEMAND	P.S.I. P.I. PWR.	POUNDS PER SQUARE INCH PRESSURE TREATED POWER (CABINET) QUANTITY
•	SPOT ELEVATION		CENTERLINE	EO3	LIGHTING FIXTURE, FLUORESCENT, 10.94" x 4"-0", 2/40W, SURFACE MOUNTING TYPE, HUBBELL LIGHTING CATALOG	T	STEPDOWN TRANSFORMER	DEPT. D.F. DIA. DIAG.	DEPARTMENT DOUGLAS FIR DIAMETER	GTY. RAD.(R) RCPT. REF.	RADIUS RECEPTACLE REFERENCE
		\$ 	PROPERTY/LEASE LINE		#WSW232T UGHTING FIXTURE, FLUORESCENT, 10.94" x 8'-0", 2/95W,		are some manual on the	DIAG. DIM. DWG.	DIAGONAL DIMENSION DRAWING[S]	REINF. REO/D.	REINFORCEMENT(ING) REQUIRED
Δ	SET POINT	$\overline{\mathbf{Q}}$	MATCH LINE		SURFACE MOUNTING TYPE, HUBBELL LIGHTING CATALOG #TWSM232T	Θ	RECEPTACLE, 2P-3W-125V-15A, DUPLEX, GROUND TYPE, HUBBEL CATALOG #5362	DWL. EA. EGR.	DOWEL(S) EACH EMERGENCY GENERATOR RECEPTACLE	RGS. SAF SCH.	RIGID GALVANZED STEEL SAFETY SCHEDULE
\triangle	REVISION	•	WORK POINT	Ю	LIGHTING FIXTURE, HIGH PRESSURE SODIUM, 1/70W, WALL MOUNTING TYPE, HUBBELL LIGHTING CATALOG #NRG-307 OR 1/50W, HUBBELL LIGHTING CATALOG #NRG-121	S	TOGGLE SWITCH, 1P-125V-15A, HUBBELL CATALOG #HBL 1201CN	EL. BLEC. BLEV. EMT.	ELEVATION ELECTRICAL ELEVATOR ELECTRICAL METALLIC TUBING	SOBC SEC SHT. SIM. S.N. SPEC.	SOFI DRAWN BARE COPPER SECONDARY SHEET SIMILAR SOULD NEUTRAL
×	GRID REFERENCE		GROUND CONDUCTOR	Н⊗	EXIT SIGN, THERMOPLASTIC LED, SINGLE FACE, UNIVERSAL MOUNTING, W/BATTERY PACK, HUBBELL LIGHTING CATALOG	Swp	TOGGLE SWITCH, 1P-120V-15A, "WP"	E.N. ENCL ENG. EQ.	EDGE NAIL BNCLOSURE ENGINEER EGUAL	SPEC. SQ. 5.5. S1D.	SPECIFICATION(S) SQUARE STAINLESS STEEL
X X-X	DETAIL REFERENCE		COAXIAL CABLE	4 6	#PRB	M.E.		EXST.(E) EXP.	EXISTING EXPANSION	STL. STRUC	STANDARD STEEL STRUCTURAL
		o/u	OVERHEAD SERVICE CONDUCTORS	EXIT	COMBINATION, EXIT SIGN & EMERGENCY LIGHTING. HUBBELL LIGHTING CATALOG #PRC	(\$)	IONIZATION SMOKE DETECTOR W/ALARM HORN & AUXILIARY CONTACT, 120 VAC, GENTEX PART NO. 7100F	EXT. FAB. FAC. F/A	EXTERIOR FABRICATION(OR) FACTOR FRE ALARM	SURF SW TEL.	SURFACE SWITCH TELEPHONE
XXX	ELEVATION REFERENCE	—x — x—	CHAIN LINK FENCING		EMERGENCY LIGHTING, 2/50W, HUBBELL LIGHTING CATALOG #HE6-50-2-R91	0	POLE	F.F. F.G. FIN.	FINSH FLOOR FINSH GRADE FINSHEDI FLOOR	T.N.	TEMPORARY THCK(NESS) TOF NAIL TOP OF ANTENNA
\triangle 1	SECTION REFERENCE	ОНТ/ОНР	OVERHEAD ELEPHONE/OVERHEAD POWER	Ю	LIGHTING FIXTURE, INCANDESCENT, 1/100W, WALL MOUNTING TYPE, HUBBELL LIGHTING CATALOG			FLR. FLUOR FON. F.O.C.	FLUORESCENT FOUNDATION	toc	TOP OF CURB TOP OF FOUNDATION TOP OF PLATE (PARAPET)
(x-x)	JECTION REPERENCE	—— ОНТ ——	OVERHEAD TELEPHONE LINE	Ю	#BRH-100-06-1	•	PROPOSED POLE MOUNTED XFMER	F.O.C. F.O.M. F.O.S. F.O.W.	FACE OF CONCRETE FACE OF MASONRY FACE OF STUD	1.O.S. 1.O.W. TVP.	TOP OF STEEL TOP OF WALL TYPICAL
		—— ОНР ——	OVERHEAD POWER LINE	B	LIGHTING FIXTURE, HALOGEN, QUARTZ, 1/300W, HUBBELL LIGHTING CATALOG #QL-505	Δ	(E) POLE MOUNTED XFMR	F.S. FI.[] FIG.	FACE OF WALL FINSH SURFACE FOOT (FEET) FOOTING	U.G. U.L. U.N.O.	UNDER GROUND UNDERWRITERS LABORATORY INC. UNLESS NOTED OTHERWISE
		-t-t-	POWER RUN					FU G GR GA.	RUSE GROUND GROWTH (CABINET)	VAC VJ.F.	VOLT ALTERNATING CURRENT VERIFY IN FIELD
				нα	LIGHTING FIXTURE, 1/175W, METAL HALIDE, HUBBELL CAT #MIC-0175H-336		PROPOSED PAD MOUNTED XFMER	GEN, GL	GAUGE GENERATOR GALVANIZEIDI	WD W/	WATT OR WIRE WIDEJWIDTHJ WITH
				•	5/8" X 10"-0" ,Cu. GND ROD 30" MIN. BELOW GRADE.		(E) PAD MOUNTED XFMER	G.F.C. I, GI,B. GND GPS GRND, HDBC	GROUND FAULT CIRCUIT INTERRUPTER GROUND GLOBAL POSITIONING SYSTEM GROUND HARD DRAWN COPPER WIRE	WD. W.P. WT, XFER XFMR	WINDUT WOOD WEATHERPROOF WEIGHT TRANSFORMER
								HDR. HGR. HPS	HEADER HANGER HIGH PRESSURE SODIUM	c	CROSS-LINK POLYETHYLENE CENTERLINE PLATE, PROPERTY LINE



AT&T Wireless 5001 Executive Parkway San Ramon, CA 94583

Client



785 Oak Grove Road E2 Suite 251

707.592.5924

Project Architect:



575 LENNON LANE SUITE 125 WALNUT CREEK, CA 94598 T 925.482.8500

Site Agent:

90% Zoning Drawings

Drawing Phase:

CRAN-RSFR-SFOK7-001 PACE ID: ROW AT 1425 5TH ST OAKLAND CA 94607 COUNTY: ALAMEDA

Site Name:

Professional Seal:

unless they are acting under the direction of a licensed Professional Architect/Engineer, to alter this document

Rev. Date Description 09/27/17 Zoning Dwgs 90%

Project No.:

Date: 09/27/17 Job No.:

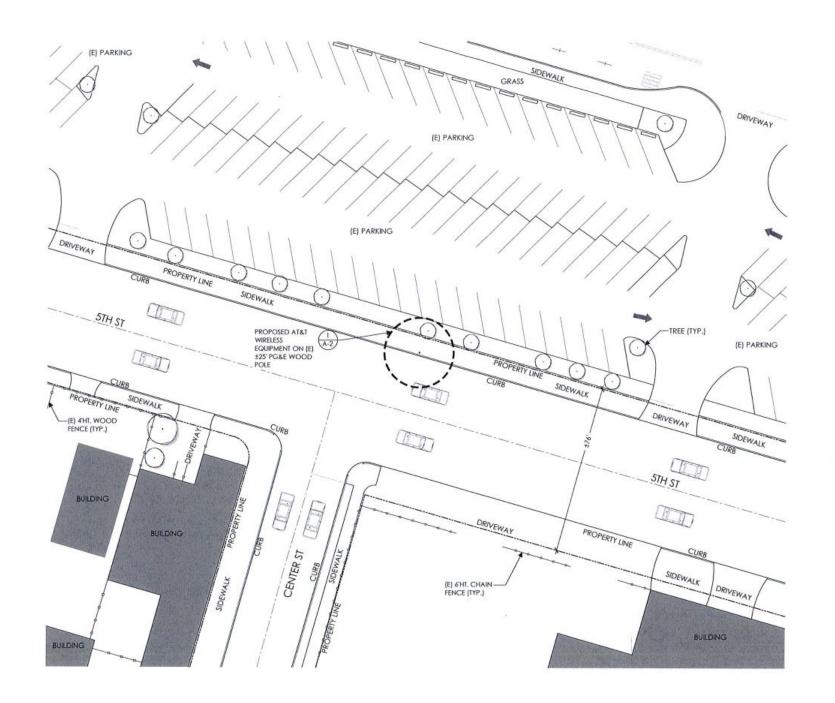
Scale: AS SHOWN CAD File:

Designed By: JG Checked: RB

GENERAL NOTES LEGEND ABBREVIATIONS

Sheet No.:

Meridian Management LLC, 2017



NOTE: THIS SITE PLAN WAS GENERATED WITHOUT THE USE OF A SURVEY, PROPERTY LINES, RIGHT-OF-WAYS, POWER & TELCO UTILITY POINT CONNECTIONS/ROUTES AND EASEMENTS SHOWN ON THESE PLANS ARE ESTIMATED. ALL ITEMS AND DIMENSIONS SHOULD BE VERIFIED IN THE FIELD.

UNDERGROUND UTILITIES NOTE:
THE LOCATIONS AND EXISTENCE OF ANY UNDERGROUND PIPES, STRUCTURES,
OR CONDUITS SHOWN ON THIS PLAN WERE OBTAINED BY A SEARCH OF
AVAILABLE RECORDS, THERE MAY BE EXISTING UTILITIES OTHER THAN THOSE SHOWN ON THIS PLAN, THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT SHOWN ON THIS PLAN.





AT&T Wireless 5001 Executive Parkway San Ramon, CA 94583



ncord. CA 94518 707.592.5924

Project Architect:



575 LENNON LANE SUITE 125 WALNUT CREEK, CA 94598 T 925.482.8500

Site Agent:

90% Zoning Drawings

Drawing Phase:

CRAN-RSFR-SFOK7-001

PACE ID: **ROW AT 1425 5TH ST** OAKLAND, CA 94607 COUNTY: ALAMEDA

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Rev. Date Description 09/27/17 Zoning Dwgs 90%

Project No.:

Date: 09/27/17 Job No.: Scale: AS SHOWN CAD File:

Designed By: JG Checked: RB

OVERALL SITE PLAN

20' 10' 0 10' 20'

- (N) AT&T EQUIPMENT TO BE MOUNTED BETWEEN THE 9:00 AND 12:00 QUADRANT
- CLIMBING SPACE BETWEEN 12:00 & 3:00
- POLE STEPS REQUIRED FROM 8.5' TO COMMUNICATIONS ZONE PER GO95
- STEPS SHOULD BE USABLE WHEN INSTALLED WITHIN CLIMBING SPACE

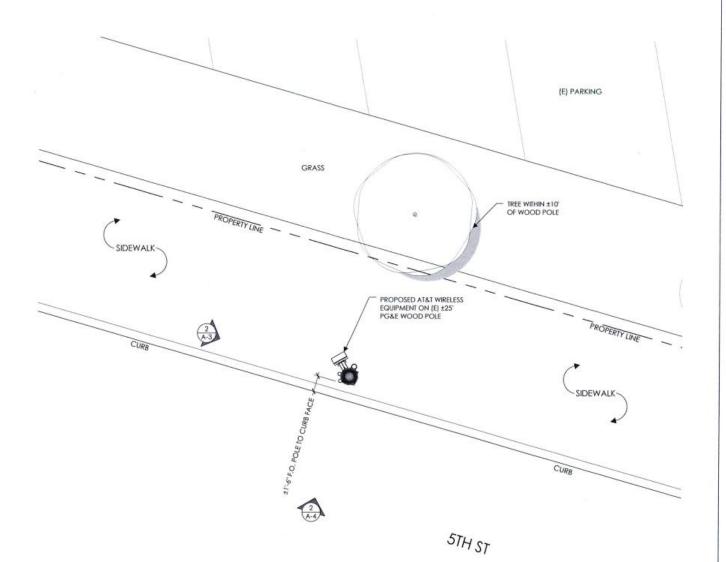
EQUIPMENT SYSTEM:

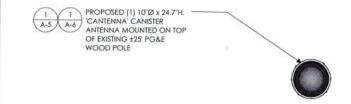
ALL NEW COMPONENTS NOT SHOP PAINTED SHOULD BE FIELD PAINTED SHERWIN WILLIAMS MESA BROWN

NEW CONDUIT FOR POWER/TELCO: (1) 2" CONDUIT FOR POWER

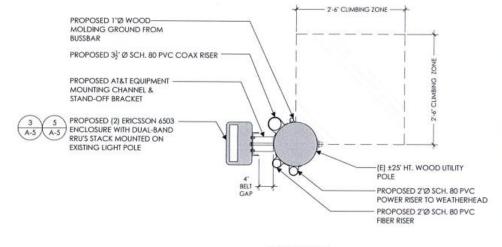
(1) 2" CONDUIT FOR FIBER

(1) 3½" CONDUIT FOR COAX (1) 1" WOOD MOLDING FOR GROUND

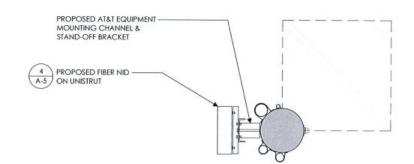




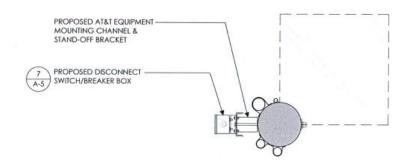
A. SECTION (CANISTER ANTENNA)



B. SECTION (RRUS)



C. SECTION (FIBER)



D. SECTION (DISCONNECT SWITCH/BREAKER BOX)

NORTH

6.06.1

SCALE



AT&T Wireless 5001 Executive Parkway San Ramon, CA 94583



Project Architect:



575 LENNON LANE SUITE 125 WALNUT CREEK, CA 94598 T 925.482.8500

Site Agent:

90% Zoning Drawings

(E) LIGHT POLE Drawing Phase:

CRAN-RSFR-SFOK7-001 PACE ID: ROW AT 1425 5TH ST OAKLAND, CA 94607 COUNTY: ALAMEDA

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Rev. Date Description 09/27/17 Zoning Dwgs 90%

Date: 09/27/17 Job No.:

Scale: AS SHOWN CAD File:

Designed By: JG Checked: RB

POLE PLAN EQUIPMENT ENLARGEMENTS

Sheet No.:

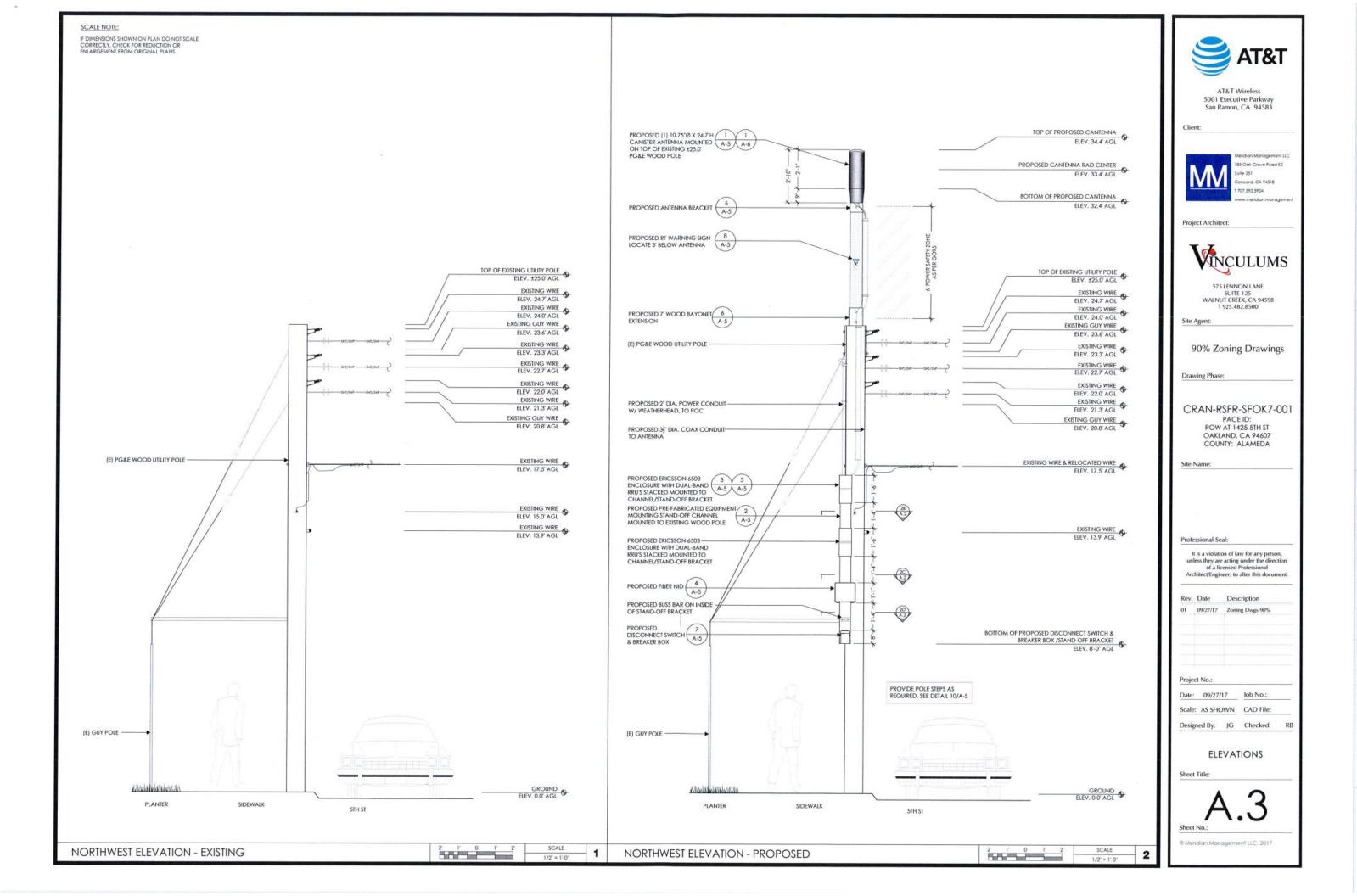
Meridian Management LLC, 2017

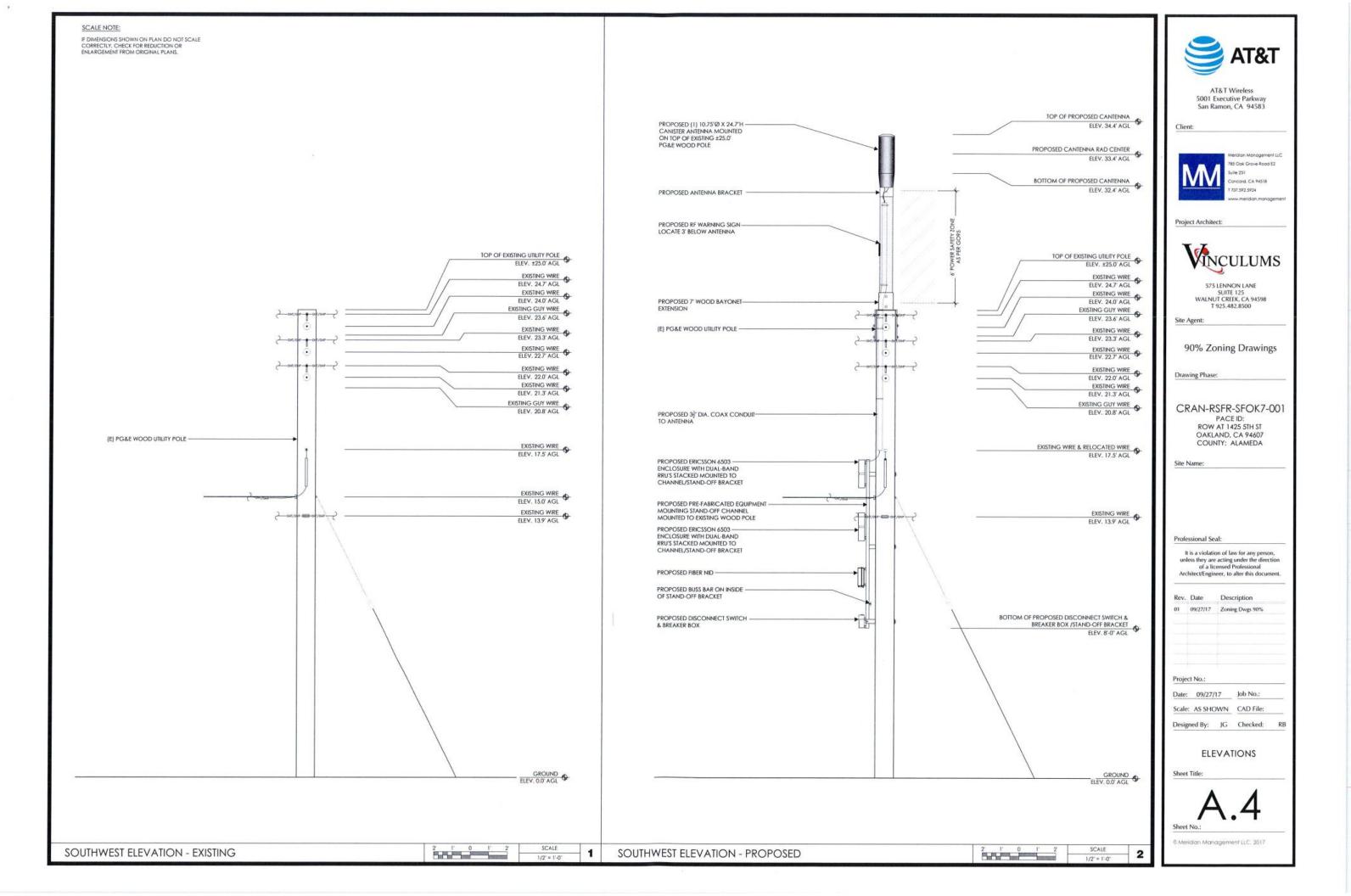
POLE PLAN ENLARGEMENT

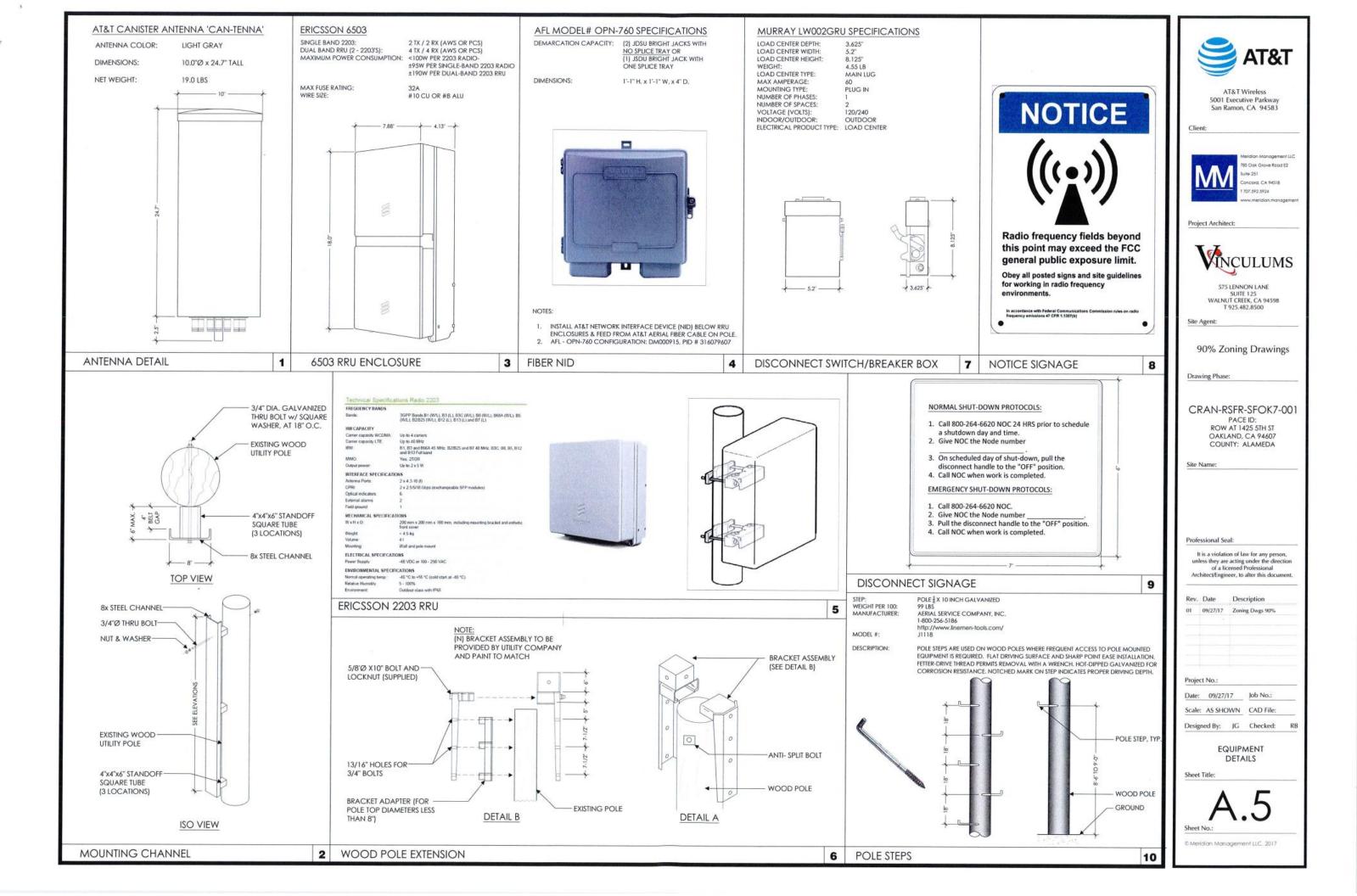
16' 8' 0 8' 16

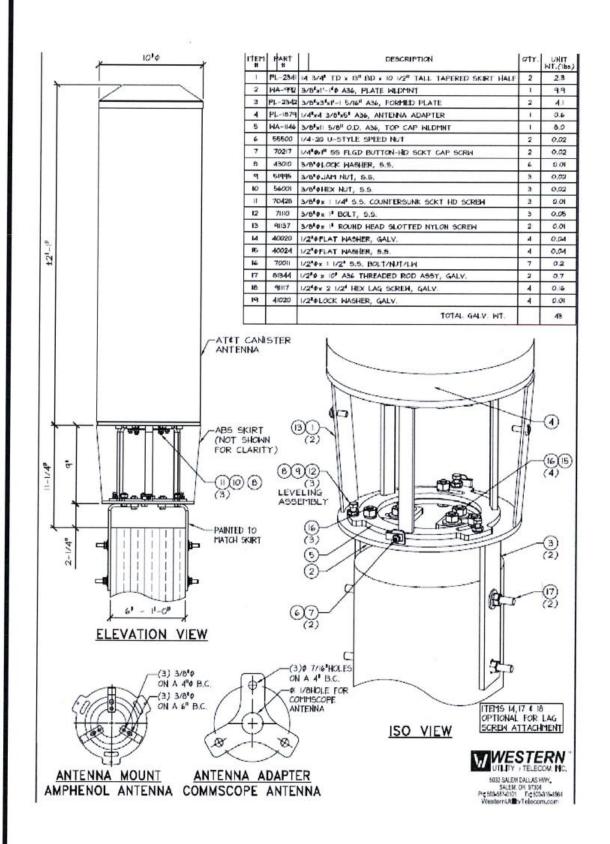
POLE PLAN ENLARGEMENTS

2











AT&T Wireless 5001 Executive Parkway San Ramon, CA 94583



785 Oak Grove Road E2 Concord, CA 94518 707.592.5924

Project Architect:



575 LENNON LANE SUITE 125 WALNUT CREEK, CA 94598 T 925.482.8500

90% Zoning Drawings

Drawing Phase:

CRAN-RSFR-SFOK7-001

PACE ID: ROW AT 1425 5TH ST OAKLAND, CA 94607 COUNTY: ALAMEDA

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Rev. Date Description 09/27/17 Zoning Dwgs 90%

Project No.:

Date: 09/27/17 Job No.:

Scale: AS SHOWN CAD File:

Designed By: JG Checked: RB

EQUIPMENT DETAILS

POLE TOP MOUNT W/ SKIRT ASSEMBLY DETAIL

1

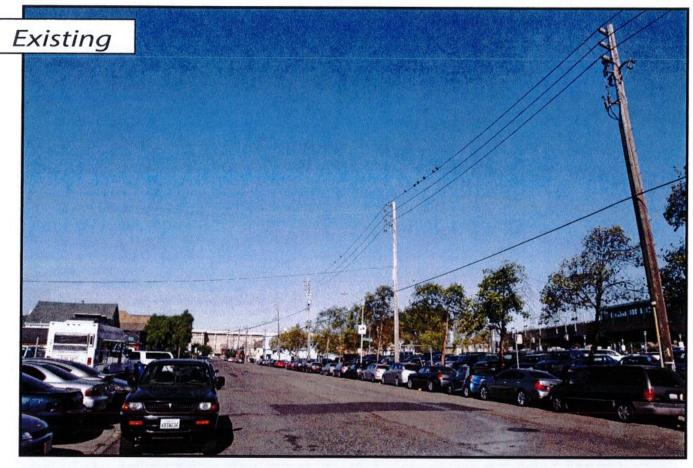
NOT USED

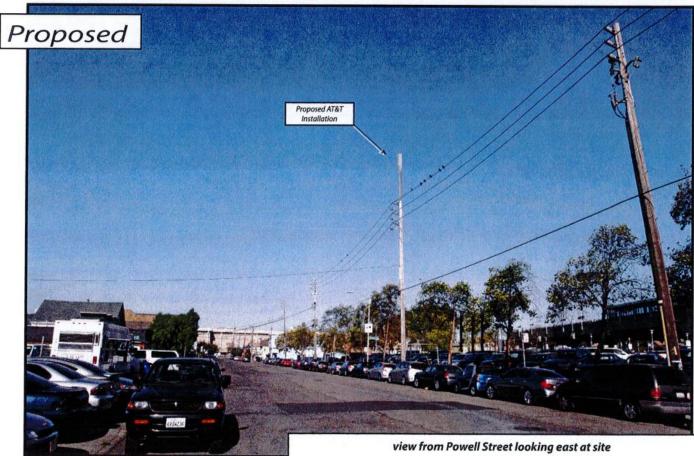
2

Existing







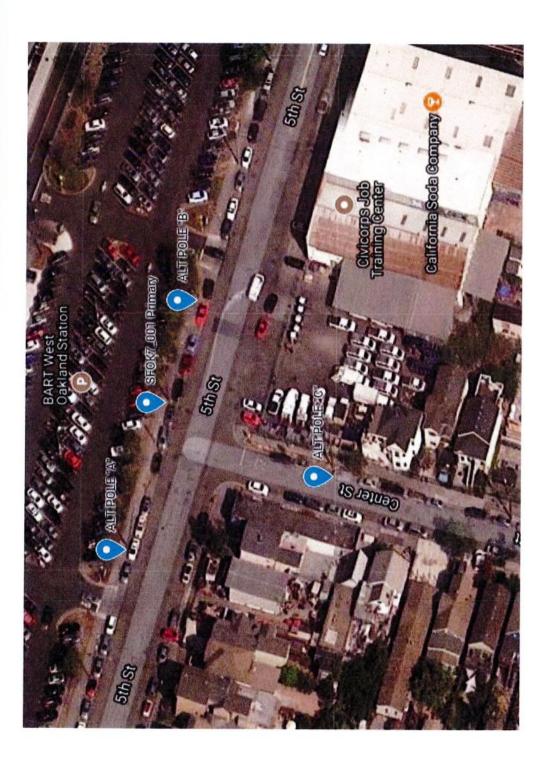


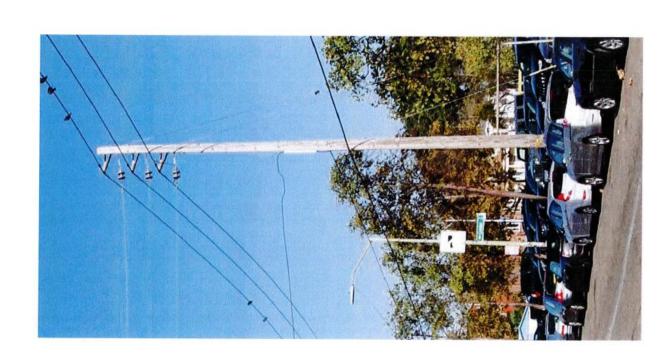
AT&T Wireless

AdvanceSime Photo Simulation Solutions Contact (925) 202-8507 CRAN-RSFR-SFOK7-001

ROW at 1425 5th Street, Oakland, CA Photosims Produced on 10-5-2017

ALTERNATIVE SITE ANALYSIS SFOK7_001





AT&T PROPOSED LOCATION

SFOK7_001

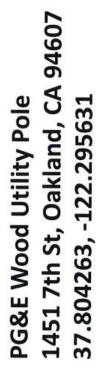
1451 7th St, Oakland, CA 94607

APN: 4-75-9

37.8041800, -122.2952400

The project is located in an area with both existing residential & commercial structures. AT&T considered alternate utility poles immediately adjacent but none were desirable from a service coverage need, CPUC standards, PG&E standards, or an aesthetics perspective. The proposed project is in an underserved area.

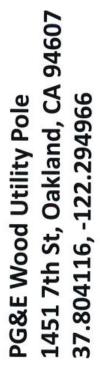
ALTERNATIVE POLE "A"



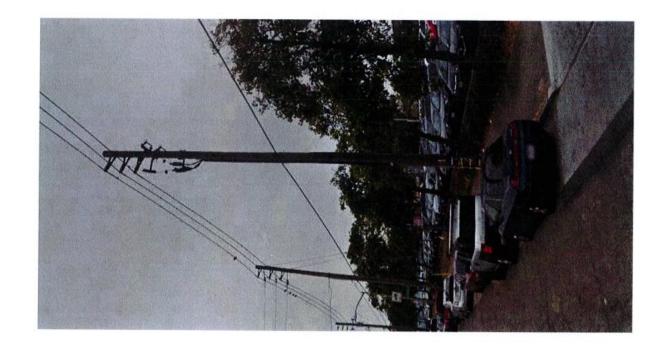
Findings: PG&E wood utility pole is braced at base of pole and is slated for pole replacement therefore we omitted from our candidate list.



ALTERNATIVE POLE "B"



Findings: PG&E wood utility poles with primary risers are precluded from attachment.



ALTERNATIVE POLE "C"

PG&E Wood Utility Pole 1441 5th St., Oakland, CA 94607 37.803822, -122.295435 Findings: PG&E wood utility poles with manual cut off switches are precluded from attachment



ALTERNATIVE DESIGN ANALYSIS

SFOK7_001

APN:

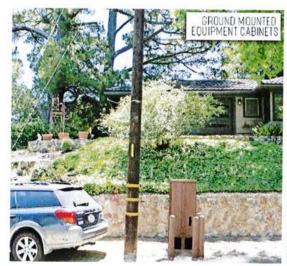
4-75-9

LAT/LONG:

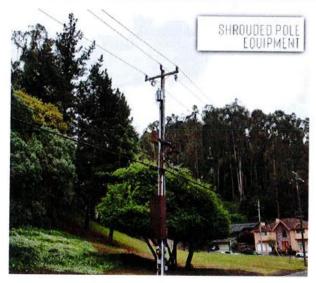
37.8041800, -122.2952400

The project is located in an area with existing commercial structures. AT&T considered alternative monopole designs (see below) in this area but none of these designs are as desirable from a planning perspective or from an aesthetics perspective to minimize visual impacts. The proposed project is in an underserved area.

Alternative light pole designs considered







AT&T Mobility • Proposed Small Cell (No. CRAN-RSFR-SFOK7-001) 1425 Fifth Street • Oakland, California

Statement of Hammett & Edison, Inc., Consulting Engineers

The firm of Hammett & Edison, Inc., Consulting Engineers, has been retained on behalf of AT&T Mobility, a personal wireless telecommunications carrier, to evaluate its small cell (No. CRAN-RSFR-SFOK7-001) proposed to be sited in Oakland, California, for compliance with appropriate guidelines limiting human exposure to radio frequency ("RF") electromagnetic fields.

Executive Summary

AT&T proposes to install an omnidirectional cylindrical antenna on a utility pole sited in the public right-of-way at 1425 Fifth Street in Oakland. The proposed operation will comply with the FCC guidelines limiting public exposure to RF energy.

Prevailing Exposure Standards

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

Wireless Service	Frequency Band	Occupational Limit	Public Limit
Microwave (Point-to-Point)	5,000-80,000 MHz	5.00 mW/cm ²	1.00 mW/cm ²
BRS (Broadband Radio)	2,600	5.00	1.00
AWS (Advanced Wireless)	2,100	5.00	1.00
PCS (Personal Communication	1,950	5.00	1.00
Cellular	870	2.90	0.58
SMR (Specialized Mobile Radi	o) 855	2.85	0.57
700 MHz	700	2.35	0.47
[most restrictive frequency rang	ge] 30–300	1.00	0.20

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

General Facility Requirements

Small cells typically consist of two distinct parts: the electronic transceivers (also called "radios") that are connected to the traditional wired telephone lines, and the passive antennas that send the wireless signals created by the radios out to be received by individual subscriber units. The transceivers are typically mounted on the support pole or placed in a cabinet at ground level, and they are connected to the antennas by coaxial cables. Because of the short wavelength of the frequencies assigned by the



AT&T Mobility • Proposed Small Cell (No. CRAN-RSFR-SFOK7-001) 1425 Fifth Street • Oakland, California

FCC for wireless services, the antennas require line-of-sight paths for their signals to propagate well and so are installed at some height above ground. The antennas are designed to concentrate their energy toward the horizon, with very little energy wasted toward the sky or the ground. This means that it is generally not possible for exposure conditions to approach the maximum permissible exposure limits without being physically very near the antennas.

Computer Modeling Method

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

Site and Facility Description

Based upon information provided by AT&T, including drawings by Meridian Management LLC, dated September 27, 2017, it is proposed to install one KMW Model FLT-OM10H2, 2-foot tall, omnidirectional cylindrical antenna, on top of an existing utility pole sited in the public right-of-way on the north side of Fifth Street in Oakland, opposite the intersection of Center Street and next to a parking lot at the West Oakland BART Station. The antenna would employ 2° downtilt and would be mounted at an effective height of about 33½ feet above ground. The maximum effective radiated power in any direction would be 100 watts for PCS service. There are reported no other wireless telecommunications base stations at this site or nearby.

Study Results

For a person anywhere at ground, the maximum RF exposure level due to the proposed AT&T operation is calculated to be 0.0017 mW/cm², which is 0.17% of the applicable public exposure limit. The maximum calculated level at the second-floor elevation of any nearby building is 0.10% of the public exposure limit. It should be noted that these results include several "worst-case" assumptions and therefore are expected to overstate actual power density levels from the proposed operation.

AT&T Mobility • Proposed Small Cell (No. CRAN-RSFR-SFOK7-001) 1425 Fifth Street • Oakland, California

No Recommended Mitigation Measures

Due to its mounting location and height, the AT&T antenna would not be accessible to the general public, and so no mitigation measures are necessary to comply with the FCC public exposure guidelines. The occupational limit is calculated to extend 4 inches from the antenna and, due to this short distance, the proposed operation is considered intrinsically compliant with that limit.

Conclusion

Based on the information and analysis above, it is the undersigned's professional opinion that operation of the small cell proposed by AT&T Mobility at 1425 Fifth Street in Oakland, California, will comply with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, will not for this reason cause a significant impact on the environment. The highest calculated level in publicly accessible areas is much less than the prevailing standards allow for exposures of unlimited duration. This finding is consistent with measurements of actual exposure conditions taken at other operating small cells.

Authorship

The undersigned author of this statement is a qualified Professional Engineer, holding California Registration Nos. E-13026 and M-20676, which expire on June 30, 2019. This work has been carried out under his direction, and all statements are true and correct of his own knowledge except, where noted, when data has been supplied by others, which data he believes to be correct.

November 15, 2017

PROFESSIONAL E-13026
M-20676
Exp. 6-30-2019
Exp. 6-30-2019

EXP. 6-30-2019

FECHANICAL FOR CONTROL OF CALIFORNIA

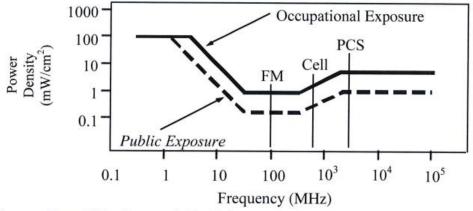
William F. Hammett, P.E. 707/996-5200

FCC Radio Frequency Protection Guide

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

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

Frequency	Electro	magnetic F	ields (f is fr	equency of	emission in	MHz)	
Applicable Range (MHz)	Electric Field Strength (V/m)		Field S	gnetic Strength /m)	Equivalent Far-Field Power Density (mW/cm²)		
0.3 - 1.34	614	614	1.63	1.63	100	100	
1.34 - 3.0	614	823.8/f	1.63	2.19/f	100	$180/f^2$	
3.0 - 30	1842/ f	823.8/f	4.89/ f	2.19/f	900/ f ²	$180/f^2$	
30 - 300	61.4	27.5	0.163	0.0729	1.0	0.2	
300 - 1,500	3.54 √ f	1.59 √ f	√ f/106	$\sqrt{f/238}$	f/300	f/1500	
1,500 - 100,000	137	61.4	0.364	0.163	5.0	1.0	



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



RFR.CALC[™] Calculation Methodology

Assessment by Calculation of Compliance with FCC Exposure Guidelines

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

Near Field.

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

For a panel or whip antenna, power density
$$S = \frac{180}{\theta_{BW}} \times \frac{0.1 \times P_{net}}{\pi \times D \times h}$$
, in mW/cm²,

and for an aperture antenna, maximum power density
$$S_{max} = \frac{0.1 \times 16 \times \eta \times P_{net}}{\pi \times h^2}$$
, in mW/cm²,

where θ_{BW} = half-power beamwidth of the antenna, in degrees, and

Pnet = net power input to the antenna, in watts,

D = distance from antenna, in meters,

h = aperture height of the antenna, in meters, and

 η = aperture efficiency (unitless, typically 0.5-0.8).

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

Far Field.

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

power density
$$S = \frac{2.56 \times 1.64 \times 100 \times RFF^2 \times ERP}{4 \times \pi \times D^2}$$
, in mW/cm²,

where ERP = total ERP (all polarizations), in kilowatts,

RFF = relative field factor at the direction to the actual point of calculation, and

D = distance from the center of radiation to the point of calculation, in meters.

The factor of 2.56 accounts for the increase in power density due to ground reflection, assuming a reflection coefficient of 1.6 ($1.6 \times 1.6 = 2.56$). The factor of 1.64 is the gain of a half-wave dipole relative to an isotropic radiator. The factor of 100 in the numerator converts to the desired units of power density. This formula has been built into a proprietary program that calculates, at each location on an arbitrary rectangular grid, the total expected power density from any number of individual radiation sources. The program also allows for the description of uneven terrain in the vicinity, to obtain more accurate projections.





Utility Contact System Search

The Utility Contact System (UCS) is the Communications Division's database for the primary regulatory contact for each telephone corporation operating in California. The Communications Division sends important for primary regulatory notices to the regulatory contact for each telephone corporation via e-mail, so it is important for primary regulatory contacts to update their UCS record if their e-mail address changes.

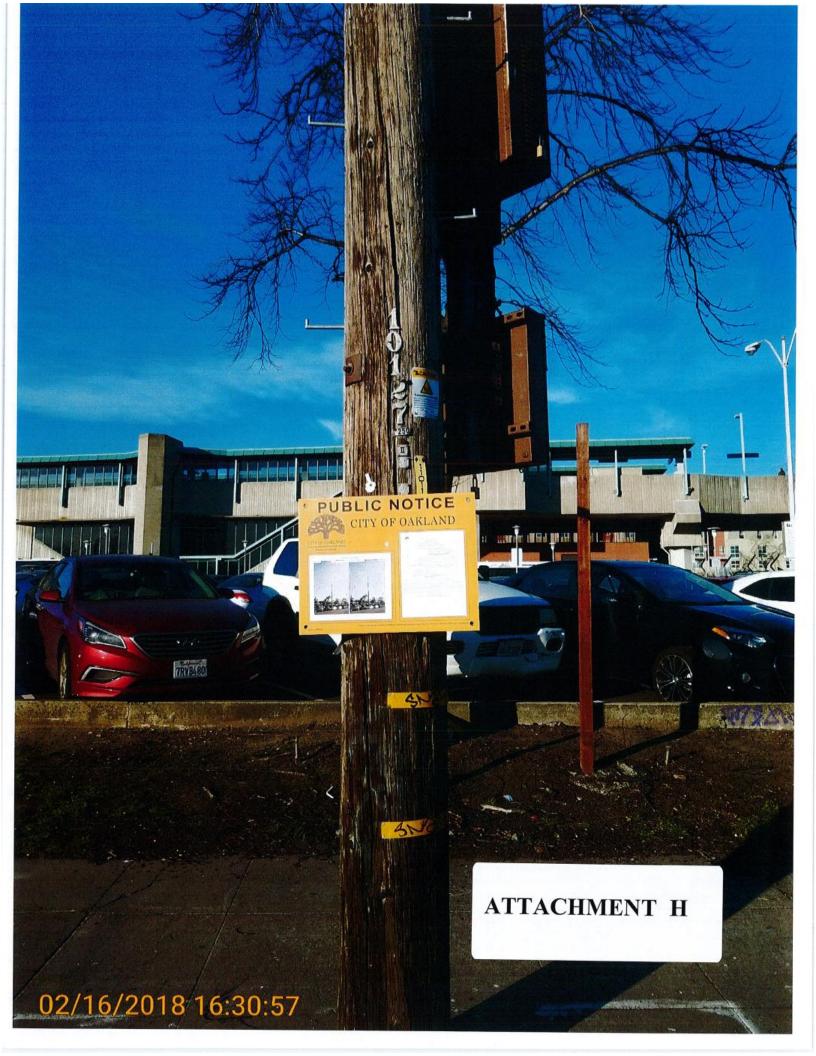
Telephone corporations may update UCS contact information using the form on the following page: Carrier Reporting Requirements

A description of the different utility types (granted authorities) are listed on the following page: <u>Utility Type Descriptions</u>

Search Utility Nar	ne	Search Utility Number 3060					Search Clear				
Utility Name A Alias (DBA Name)		DBA Name) Utility Number Street Address		City	State	Zip	Phone Number	Email	Utility Type	CPCN App	
New Cingular Wireless Pcs, LLC	CINGULAR WIRELESS	SULAR 3050 430 BUSH SAN		8 (415) 778-1299 att-regulatory-ca@att.com		CEC CEC	12-21-1995				
New Cingular Wireless Pcs, LLC	CINGULAR WIRELESS	3060	7405 GREENHAVEN DRIVE	SACRAMENTO	CA	95831	(800) 498-1912	west.region.oopsac@awsmail.att.com	CEC	12-21-1995	
New Cingular Wireless Pcs, LLC	CINGULAR WIRELESS	3060	11760 US HIGHWAY ONE, WEST TOWER	NORTH PALM BEACH	FL	33048	770-240-8849		CEC	12-21-1995	

Save Search Results as CSV Spreadsheet

Comments & Feedback





AT&T OPEN HOUSE



AT&T is improving wireless service in Oakland!

We will soon be proposing state-of the-art small cell wireless facilities including antennas, attached to existing utility poles and light poles.

Want to learn more?

Please join us for an open house showcasing AT&T's network, designs, permitting and radio frequency engineering.

Tuesday, January 30th, 2018
Open House–Stop by anytime between 6pm–8pm
Light refreshments served
Temescal Oakland Public Library
5205 Telegraph Ave., Oakland, CA 94609

If you have any questions, please feel free to contact:
oaklandoutreach@vinculums.com
(925) 482-8550



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We will soon be proposing state-of the-art small cell wireless facilities including antennas, attached to existing utility poles and light poles.

Want to learn more?

Please join us for an open house showcasing AT&T's network, designs, permitting and radio frequency engineering.

Monday, January 8th, 2018
Open House–Stop by anytime between 6 –8PM
Light refreshments served
Preservation Park - Nile Hall
1233 Preservation Park Way, Oakland, CA 94612

If you have any questions, please feel free to contact:
oaklandoutreach@vinculums.com
(925) 482-8550

Map data ©2018 Google AT&T Oakland Small Cell Master Plan Map