

PRE-APPLICATION CONFERENCE

Thursday, May 19, 2022

City Hall* 22500 Salamo Road

1:00 pm: Proposed Class1 Design Review for a Modification to a Wireless Tower

Applicant: J5 Infrastructure Partners
Property Address: 21400 Salamo Road

Neighborhood Assn: Savanna Oaks Neighborhood Association

Planner: Chris Myers Project #: PA-22-16



^{*}Pre-application conferences will be conducted in a hybrid format, with some staff and participants attending remotely via Webex and others attending in-person at City Hall.

PRE-APPLICATION CONFERENCE

	THIS SECT	ION FOR STAFF COM	DIETION		
CONFERENCE DATE: 5/19/2		Time: 1:00pm	PROJECT #: PA-22-16		
STAFF CONTACT: Chris N	Nyers		FEE: \$350		
to be scheduled for application fee, and before the conference	r a conference, the daccompanying nence date. Twenty-	is form including prop naterials must be subi	dednesdays of each month. In order perty owner's signature, the premitted by 4:00pm at least 15 days quired to reschedule.		
Brief Description or equipment within the	· —	modification with extension of	of RFP screening and adding/relacing		
Applicant's Name:	J5 Infrastructure Partn	ers (on behalf of AT&T)			
Mailing Address:	6732 SW Terri Ct., Por	tland, OR 97225			
Phone No:	(503) 312-3400	Email Address: _mhewett@j5ip.com			
Please attach addi to 11 x 17 inches i			al including a site plan on paper <u>up</u>		
 North arrow Scale Property dimer Streets abutting Conceptual layer 		Location of tree surveyLocation of the tree survey	and from the site, if applicable f existing trees, highly recommend a f creeks and/or wetlands, highly and a wetland delineation		
building ele		Location of	f existing utilities (water, sewer, etc.)		
		you may have for city st it requirements for modificait	caff regarding your proposal: on of the existing tower.		
By my signature be prepare for the pre			o the subject property in order to		
Property owner's s	ignature		 Date		
ROIC Oregon. LLC, 16	144 SE Happy Valley To	wn Center Dr, Happy Valley,	Received 4/21/22 by LS OR 97086		

Property owner's printed name and mailing address (if different from above)





March 30, 2022

RE: AT&T Cell Site Modification Consent Request

Site Number: 10092270 - PX30 CASCADE SUMMIT

Site Address: 21400 S Salamo Rd, West Linn, OR 97068

Reference is made to the original Oregon Lease Agreement ("Lease") dated October 16, 2005, between Cascade Summit Retail LLC, an Oregon limited liability company ("Landlord"), and New Cingular Wireless PCS, LLC, a Delaware limited liability company ("Tenant")

AT&T will soon be modifying its existing rooftop Wireless Facility at Cascade Summit Town Center. Pursuant to the Lease, Licensor approval of proposed modifications to the equipment is required. We anticipate the work to begin around mid-2023, though this is subject to change. I have attached preliminary construction plans showing the full work scope.

By signing below, you acknowledge your authorized consent to the proposed modification to the site, and that you are providing AT&T/J5ip to submit for any land-use and building related permits required from the local jurisdiction. Please return a scanned signed copy to my email address noted below.

Please feel free to contact me with any questions or concerns.

On behalf of AT&T Mobility, I thank you for your cooperation in this matter,

Natalie Erlund

Site Acquisition Specialist, Authorized AT&T Mobility Representative 503-539-9247 nerlund@J5ip.Com

Landlord Consent Provided By:

Signature:) Wynton	
Printed Name:	John Wynton	
Title: Leasing Director	г	
Date: April 29,2022		
Contact Phone Number	_{er:} 858-255-4918	



J5 Infrastructure Partners
23 Mauchly #110
Irvine, CA 92618
April 21, 2022
City of West Linn
Planning & Development
22500 Salamo Rd #1000
West Linn, OR 97068
As a representative of J5 Infrastructure Partners, working on behalf of AT&T, I submit to you at this time these materials as a pre-application meeting request for our proposed modification of the wireless tower known as "PX30 Cascade Summit" located on a rooftop cupola on the Cascade Summit Town Square property. Our proposed modification calls for the placement of an extended FRP screening and adding/replacing equipment within the existing area. Please review the associated drawing package and application and respond accordingly.
Thank you,
Meredith Hewett
J5 Infrastructure Partners
503-312-3400
mhewett@j5ip.com

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 CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

OREGON BUILDING CODES AND STANDARDS:

- 2019 OREGON STRUCTURAL SPECIALTY CODE (2018 IBC)
- 2019 OREGON MECHANICAL SPECIALTY CODE (2018 IBC)
- 3. 2017 OREGON RESIDENTIAL SPECIALTY CODE (2015 IRC) 4. 2017 OREGON ELECTRICAL SPECIALTY CODE (2017 NFPA 70)
- 5. ANSI/EIA-TIA-222-H



SITE NUMBER: PX30

> SITE NAME: CASCADE SUMMIT

SITE TYPE: ROOFTOP CUPOLA

21400 SOUTH SALAMO ROAD ADDRESS:

WEST LINN, OR 97068

INSTALLATION TYPE: CBAND 5G

VICINITY MAP

PROJECT INFORMATION

usid #	82052		
FA #	10092270		
PACE PARENT #	MRW0R053614		
PACE CHILD #	MRW0R057963		

AT&T

PREPARED FOR

16331 NE 72ND AVE. STE. 2100 PORTLAND, OR 97201

Vendor:



23 MAUCHLY #110 **IRVINE, CA 92618**

J5 PROJECT ID: P-071612

AT&T Site ID:

PX30

PROJECT TEAM

ENGINEER:

J5 INFRASTRUCTURE PARTNERS **CONTACT: JAMES CHUNG** EMAIL: jchung@J5IP.com PHONE: (949) 247-7767 x 111

AT&T CONSTRUCTION MANAGER:

CONTACT: CHARLIE PITT EMAIL: cp1261@att.com PH: 971-295-6924

CONTACT: CHRIS OSGOOD EMAIL: co3884@att.com

AT&T PROJECT MANAGER:

CONTACT: WENDY LONG PH: (206) 321-1116

SITE ACQUISITION:

J5 INFRASTRUCTURE PARTNERS CONTACT: NATALIE ERLUND EMAIL: nerlund@J5IP.com PH: (503) 539-9247

CONSTRUCTION MANAGER:

J5 INFRASTRUCTURE PARTNERS CONTACT: DEVIN TAYLOR PH: (503) 309-1380

J5 INFRASTRUCTURE PARTNERS CONTACT: JOSH MALBERG EMAIL: jmalberg@j5ip.com PH: (208) 316-1897

PROJECT MANAGER:

J5 INFRASTRUCTURE PARTNERS CONTACT: SARA MITCHELL EMAIL: samitchell@J5IP.com PH: (901) 281-1422

LOCAL MAP PROJECT DESCRIPTION

MODIFICATION TO AN UNMANNED TELECOMMUNICATIONS FACILITY, CONSISTING OF THE FOLLOWING:

- EXISTING CUPOLA TO BE EXTENDED 6' TO FIT PROPOSED ANTENNAS
- RETAIN (6) NNHH-65A-R4 PANEL ANTENNAS
- RETAIN (9) RRH'S AT EQUIPMENT LEVEL
- RETAIN (3) DUAL MODE FIBER JUMPER FIBER TRUNKS
- RETAIN (3) DC JUMPER POWER TRUNKS RETAIN (1) DC12-48-60-RM SURGE SUPPRESSOR AT EQUIPMENT LEVEL
- INSTALL (3) PROPOSED NOKIA AEQK PANEL ANTENNAS
- INSTALL (3) PROPOSED NOKIA AEQU PANEL ANTENNAS
- INSTALL (1) PROPOSED DC6-48-60-0-1B-01 SURGE SUPPRESSOR AT ANTENNA LEVEL
- INSTALL (3) PROPOSED PWRT-208-S POWER TRUNKS • INSTALL (1) PROPOSED RFFT-24SM-001-50M FIBER TRUNKS

SHEET INDEX

ENLARGED SITE PLAN & EQUIPMENT PLANS

EXISTING AND PROPOSED ANTENNA PLANS

EXISTING & PROPOSED ANTENNA SCHEDULES

TITLE SHEET

GENERAL NOTES

OVERALL SITE PLAN

SOUTHWEST ELEVATIONS

PLUMBING DIAGRAM

GROUNDING DETAILS

GROUNDING PLAN & NOTES

SITE SIGNAGE

DETAILS

100% CD MLDV REV DATE DESCRIPTION Licensor:

EXPIRES: 12/31/23

It is a violation of law for any

persons, unless they are acting under the direction of a licensed professional engineer, to alter this document

Issued For:

REV.

PX30

CASCADE **SUMMIT** 21400 SOUTH SALAMO ROAD

WEST LINN, OR 97068

TITLE SHEET

Sheet Title:

Sheet Number:

GENERAL CONTRACTOR NOTES

PROPERTY OWNER:

ROIC OREGON, LLC

16144 SE HAPPY VALLEY TOWN CENTER DR HAPPY VALLEY, OR 97086

CITY OF WEST LINN JURISDICTION: 00391819

COMMERCIAL **CURRENT ZONING:** MULTIUSE, COMMUNICATIONS FACILITY **EXISTING USE:** MULTIUSE, COMMUNICATIONS FACILITY PROPOSED USE:

SITE INFORMATION

LATITUDE (NAD 83): 45.43640500 45° 21' 50.58" N LONGITUDE (NAD 83): -122.6467500 122° 38' 48.3" W

ACCESSIBILITY REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. ACCESSIBILITY IS NOT REQUIRED PER CBC2019, SECTION 11B-203.4 (LIMITED ACCESS SPACE)

POWER AGENCY: PH: (800) 743-5000 **TELEPHONE AGENCY:**

AT&T

RFDS VERSION: 2/1/21 DATE UPDATED: 12/13/21 DO NOT SCALE DRAWINGS

THESE PLANS ARE FORMATTED TO BE FULL SIZE AT 24" X 36". CONTRACTORS SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME.

Beavercreek

GENERAL NOTES

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 ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

STATEMENTS

STRUCTURAL ANALYSIS IS NOT WITHIN THE SCOPE OF WORK CONTAINED IN THIS DRAWINGS SET. FOR ANALYSIS OF EXISTING AND/OR PROPOSED COMPONENTS, REFER TO STRUCTURAL ANALYSIS PROVIDED UNDER SEPARATE COVER.

ANTENNA MOUNT ANALYSIS IS NOT WITHIN THE SCOPE OF WORK CONTAINED IN THIS DRAWING SET. FOR ANALYSIS OF MOUNT TO SUPPORT EXISTING AND/OR PROPOSED COMPONENTS, REFER TO ANTENNA MOUNT STRUCTURAL ANALYSIS PROVIDED UNDER SEPARATE COVER.

DIRECTIONS FROM PDX AIRPORT

- 1. HEAD NORTHWEST ON NE AIRPORT WAY
- TURN LEFT
- 3. SLIGHT LEFT ONTO NE AIRPORT WAY
- 4. USE THE RIGHT 2 LANES TO TURN SLIGHTLY RIGHT TO MERGE ONTO I-205 S TOWARD I-84/PORTLAND/SALEM
- 5. FOLLOW I-205 S TO WILLAMETTE DR IN WEST LINN. TAKE EXIT 8 FROM I-205 S

DRIVING DIRECTIONS

- 6. MERGE ONTO I-205 S
- 7. TAKE EXIT 8 FOR STATE ROUTE 43 TOWARD W LINN/LAKE OSWEGO
- 8. TAKE WILLAMETTE FALLS DR, SUNSET AVE AND PARKER RD TO YOUR **DESTINATION**
- 9. TURN LEFT ONTO WILLAMETTE DR
- 10. TURN RIGHT ONTO WILLAMETTE FALLS DR
- 11. SLIGHT RIGHT ONTO SUNSET AVE
- 12. TURN RIGHT ONTO CORNWALL ST
- 13. TURN LEFT AT THE 2ND CROSS STREET ONTO LANCASTER ST
- 14. TURN RIGHT ONTO PARKER RD
- 15. TURN LEFT TO STAY ON PARKER RD 16. TURN LEFT
- 17. TURN RIGHT (DESTINATION WILL BE ON THE RIGHT)



all 2 Full Working Days In Advanc

GENERAL CONSTRUCTION NOTES:

- 1. 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.
- 2. THE CONTRACTOR SHALL OBTAIN, IN WRITING, AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
- 3. CONTRACTOR SHALL CONTACT USA (UNDERGROUND SERVICE ALERT) AT (800) 227-2600, 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 SPECIFICALLY INDICATED OTHERWISE, OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
- 5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CBC / UBC'S REQUIREMENTS REGARDING EARTHQUAKE RESISTANCE, FOR, BUT NOT LIMITED TO, PIPING, LIGHT FIXTURES, CEILING GRID, INTERIOR PARTITIONS, AND MECHANICAL EQUIPMENT. ALL WORK MUST COMPLY WITH LOCAL EARTHQUAKE CODES AND REGULATIONS.
- REPRESENTATIONS OF TRUE NORTH, OTHER THAN THOSE FOUND ON THE PLOT OF SURVEY DRAWINGS, SHALL NOT BE USED TO IDENTIFY OR ESTABLISH BEARING OF TRUE NORTH AT THE SITE. THE CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF SURVEY DRAWING AND ANY SURVEYOR'S MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF TRUE NORTH, AND SHALL NOTIFY THE ARCHITECT / ENGINEER PRIOR TO PROCEEDING WITH THE WORK IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND THE TRUE NORTH ORIENTATION AS DEPICTED ON THE CIVIL SURVEY. THE CONTRACTOR SHALL ASSUME SOLE LIABILITY FOR ANY FAILURE TO NOTIFY THE ARCHITECT / ENGINEER.
- 7. 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 WHATSOEVER AS TO THE SUFFICIENCY OR THE ACCURACY OF THE INFORMATION SHOWN ON THE PLANS, OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTORS SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL EXISTING UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTORS SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING EXISTING UTILITIES.
- 10. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, BOTH HORIZONTAL AND VERTICALLY, PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHOULD BE IMMEDIATELY REPORTED TO THE ARCHITECT / ENGINEER FOR RESOLUTION AND INSTRUCTION, AND NO FURTHER WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS CHECKED AND CORRECTED BY THE ARCHITECT / ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS/HER OWN RISK AND EXPENSE
- 11. ALL NEW AND EXISTING UTILITY 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 UTILITIES OR IMPROVEMENTS SHALL BE ACCURATELY NOTED AND PLACED ON "AS-BUILT" DRAWINGS BY GENERAL CONTRACTOR, AND ISSUED TO THE ARCHITECT / ENGINEER AT COMPLETION OF PROJECT.
- 13. 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 SPECIFICATIONS

APPLICABLE CODES, REGULATIONS AND STANDARDS:

- 1. 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:
- 3.1. AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION, ASD, FIFTEENTH EDITION
- TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-H, STRUCTURAL STANDARD FOR STRUCTURAL ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES 3.3.
- INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) 81, GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE, AND EARTH SURFACE POTENTIALS OF A GROUND SYSTEM IEEE 1100 (1999) RECOMMENDED PRACTICE FOR POWERING AND GROUNDING OF ELECTRICAL EQUIPMENT.
- 3.5. IEEE C62.41, RECOMMENDED PRACTICES ON SURGE VOLTAGES IN LOW VOLTAGE AC POWER CIRCUITS (FOR LOCATION CATEGORY "C3" AND "HIGH SYSTEM EXPOSURE")
- TIA 607 COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS TELCORDIA GR-63 NETWORK
- EQUIPMENT-BUILDING SYSTEM (NEBS): PHYSICAL PROTECTION
- TELCORDIA GR-347 CENTRAL OFFICE POWER WIRING 3.8.
- TELCORDIA GR-1275 GENERAL INSTALLATION REQUIREMENTS
- TELCORDIA GR-1503 COAXIAL CABLE CONNECTIONS
- 3.11. ANY AND ALL OTHER LOCAL & STATE LAWS AND REGULATIONS
- 3.12. 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.

ABBREVIATIONS:

REINFORCEMENT(ING)

RIGID GALVANIZED STEEL

REQUIRED

		ABBREVIATIONS:			
A.B.	ANCHOR BOLT	FDN.	FOUNDATION		
ABV.	ABOVE	F.O.C.	FACE OF CONCRETE		
ACCA	ANTENNA CABLE COVER ASSEMBLY	F.O.M.	FACE OF MASONRY		
ADD'L	ADDITIONAL	F.O.S.	FACE OF STUD		
A.F.F.	ABOVE FINISHED FLOOR	F.O.W.	FACE OF WALL		
A.F.G.		F.S.	FINISH SURFACE		
	ABOVE FINISHED GRADE				
ALUM.	ALUMINUM	FT.(')	FOOT (FEET)		
ALT.	ALTERNATE	FTG.	FOOTING		
ANT.	ANTENNA	G.	GROWTH (CABINET)		
APPRX.	APPROXIMATE(LY)	GA.	GAUGE		
ARCH.	ARCHITECT(URAL)	Gl.	GALVANIZE(D)		
AWG.	AMERICAN WIRE GAUGE	G.F.I.	GROUND FAULT CIRCUIT		
BLDG.	BUILDING	INTERRUPTER			
BLK.	BLOCK	GLB. (GLU-LAM)	GLUE LAMINATED BEAM		
BLKG.	BLOCKING	GPS	GLOBAL POSITIONING SYSTEM		
BM.	BEAM	GRND.	GROUND		
B.N.	BOUNDARY NAILING	HDR.	HEADER		
BTCW.	BARE TINNED COPPER WIRE	HGR.	HANGER		
B.O.F.	BOTTOM OF FOOTING	HT.	HEIGHT		
B/U	BACK-UP CABINET	ICGB.	ISOLATED COPPER GROUND BUS		
CAB.	CABINET	IN. (")	INCH(ES)		
CANT.	CANTILEVER(ED)	INT.	INTERIOR		
C.I.P.	CAST IN PLACE	LB.(#)	POUND(S)		
CLG.	CEILING	L.B.	LAG BOLTS		
CLR.	CLEAR	L.F.	LINEAR FEET (FOOT)		
COL.	COLUMN	L.	LONG(ITUDINAL)		
CONC.	CONCRETE	MAS.	MASONRY		
CONN.	CONNECTION(OR)	MAX.	MAXIMUM		
CONST.	CONSTRUCTION	M.B.	MACHINE BOLT		
CONT.	CONTINUOUS	MECH.	MECHANICAL		
d	PENNY (NAILS)	MFR.	MANUFACTURER		
DBL.	DOUBLE	MIN.	MINIMUM		
DEPT.	DEPARTMENT	MISC.	MISCELLANEOUS		
D.F.	DOUGLAS FIR	MTL.	METAL		
DIA.	DIAMETER				
DIAG.	DIAGONAL	(N)	NEW		
	DIMENSION	NO.(#)	NUMBER		
DIM.		N.T.S.	NOT TO SCALE		
DWG.	DRAWING(S)	O.C.	ON CENTER		
DWL.	DOWEL(S)	OPNG.	OPENING		
EA.	EACH	P/C	PRECAST CONCRETE		
EL.	ELEVATION	PCS	PERSONAL COMMUNICATION		
ELEC.	ELECTRICAL	SERVICES			
ELEV.	ELEVATOR	PLY.	PLYWOOD		
EMT.	ELECTRICAL METALLIC TUBING	PPC	POWER PROTECTION CABINET		
E.N.	EDGE NAIL	PRC	PRIMARY RADIO CABINET		
ENG.	ENGINEER	P.S.F.	POUNDS PER SQUARE FOOT		
EQ.	EQUAL	P.S.I.	POUNDS PER SQUARE INCH		
EXP.	EXPANSION	P.T.	PRESSURE TREATED		
EXST.(E)	EXISTING	PWR.	POWER (CABINET)		
EXT.	EXTERIOR	QTY.	QUANTITY		
FAB.	FABRICATION(OR)	RAD.(R)	RADIUS		
F.F.	FINISH FLOOR	REF.	REFERENCE		
Г. С	FINICIA CDADE	DEINE			

FIN.

FLR.

SCHEDULE SCH. SHT. SHEET SIM. SIMILAR SPEC. **SPECIFICATIONS** SQ. SQUARE S.S. STAINLESS STEEL STD. STANDARD STRUC. **STRUCTURAL TEMPORARY** THK. THICK(NESS) T.N. TOE NAIL T.O.A. TOP OF ANTENNA T.O.C. TOP OF CURB T.O.F. TOP OF FOUNDATION T.O.P. TOP OF PLATE (PARAPET) T.O.S. TOP OF STEEL T.O.W. TOP OF WALL TYP. TYPICAL U.G. UNDER GROUND U.L. UNDERWRITERS LABORATORY UNLESS NOTED OTHERWISE U.N.O. V.I.F. VERIFY IN FIELD WIDE (WIDTH) WOOD **WEATHERPROOF** WEIGHT

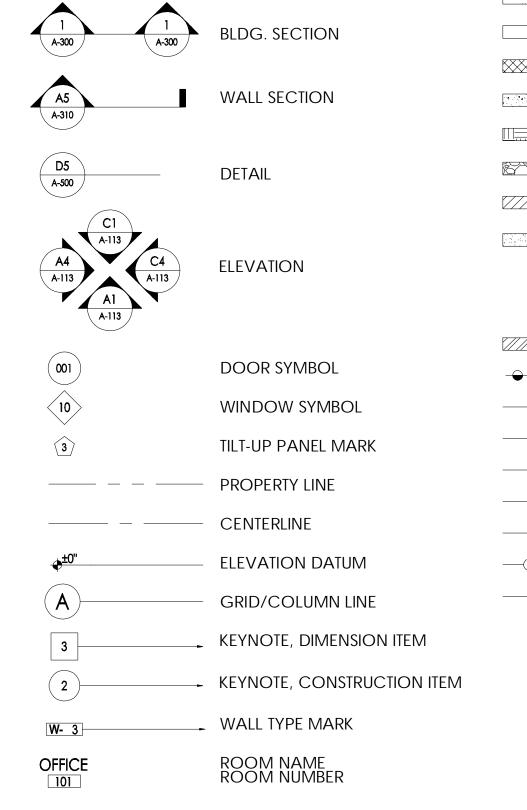
CENTERLINE

PLATE, PROPERTY LINE

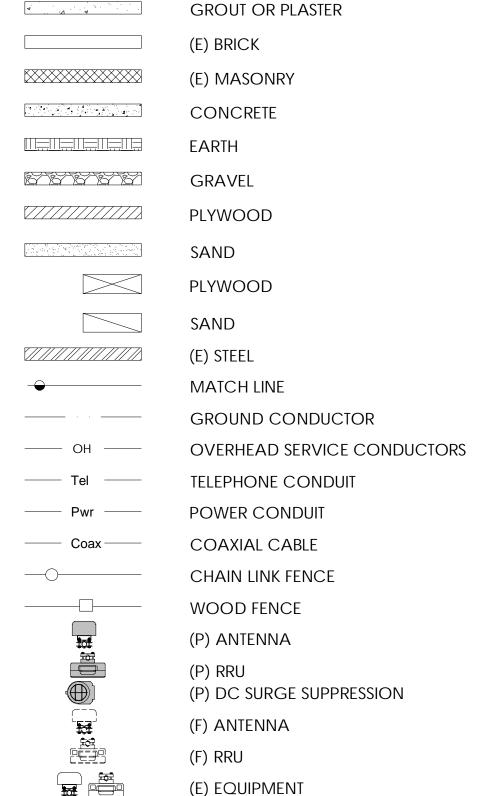
SYMBOLS LEGEND:

FINISH(ED)

FLOOR

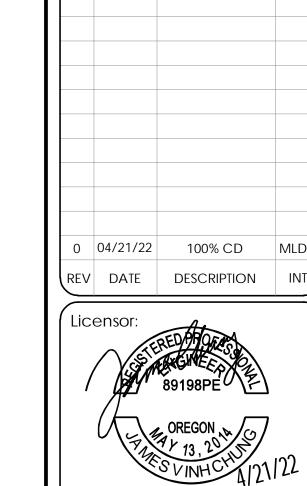


REQ'D/



PREPARED FOR 16331 NE 72ND AVE. STE. 2100 PORTLAND, OR 97201 Vendor: "

| The state of 23 MAUCHLY #110 IRVINE, CA 92618 J5 PROJECT ID: P-071612 AT&T Site ID: PX30 0 | 04/21/22 | 100% CD | MLDV REV DATE DESCRIPTION Licensor: EXPIRES: 12/31/23 It is a violation of law for any persons, unless they are acting under the direction of a licensed professional engineer, to alter this document Issued For: PX30 CASCADE **SUMMIT** 21400 SOUTH SALAMO ROAD WEST LINN, OR 97068 Sheet Title:



GENERAL NOTES

Sheet Number:



This Site Operated by:

AT&T MOBILITY

16331 NE 72ND AVE. STE. 2100 PORTLAND, OR 97201 IN CASE OF FIRE AND THE NEED FOR SHUTDOWN TO DEACTIVATE ANTENNAS CALL THE **FOLLOWING NUMBER:** For 24 Hour Emergency Contact and Access Please Call: (800)832-6662

Reference Site#: PX30

21400 SOUTH SALAMO ROAD WEST LINN, OR 97068

FENCED COMPOUND SIGNAGE



FENCED COMPOUND SIGNAGE



DOOR / EQUIPMENT SIGN



DIESEL FUEL NO SMOKING NO OPEN FLAMES

NFPA HAZARD SIGN - TYPICAL

N.T.S.

LEAD ACID BATTERIES ENERGIZED ELECTRICAL CIRCUITS **NO SMOKING**



FCC ASR SIGNAGE

Property of AT&T Authorized Personnel Only

No Trespassing Violators will be Prosecuted

In case of emergency, or prior to performing maintenance on this site, call and reference cell site number

GATE SIGNAGE

Property of AT&T

Authorized Personnel Only

In case of emergency, or prior to performing maintenance on this site, call

and reference cell site number

SHELTER / CABINET DOORS SIGNAGE 4 N.T.S.

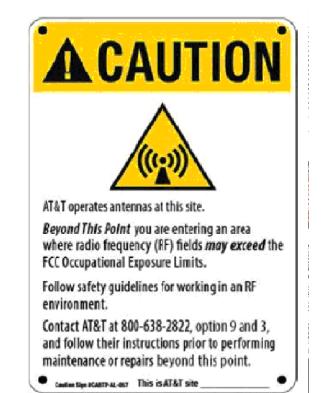


AT&T operates antennas at this site. Beyond This Point you are entering an area where radio frequency (RF) fields may exceed the FCC General Population Exposure Limits. Follow safety guidelines for working in an RF

Contact AT&T at 800-638-2822, option 9 and 3, and follow their instructions prior to performing any maintenance or repairs above this point.

> Notice Sign 2 (8" x 12")

NO-2A-AL 128 This is ATAT Site ____



Caution Sign 2 (8" x 12")



Trilingual Notice Sign



In The Striped Area you are entering an area where radio frequency (RF) fields may exceed the FCC Occupational Exposure Limits. Follow safety guidelines for working in an RF

Contact AT&T at 800-638-2822, option 9 and 3, and follow their instructions prior to performing maintenance or repairs within the striped area. Caution Sign #CA2SA-AL-128 This is AT&T site

> Caution Sign 2A (8" x 12") Use only if instructed by RF Safety

Note: Both

signs have the

same 8" x 12"

dimensions



On this tower: Radio frequency (RF) fields near some antennas may exceed the FCC Occupational Exposure Limits. Contact AT&T at 800-638-2822, option 9 and 3, and follow their instructions prior to performing maintenance or repairs beyond this point. Personnel climbing this tower should be trained for working in RF environments and use a personal RF monitor if working near active antennas.

> Caution Sign 2B Tower (8" x 12") Use for Towers only

Contino Sign #CADTT-AL-057 This is AT&T site __



AT&T operates antennas at this site Beyond This Point you are entering an area where radio frequency (RF) fields may exceed the FCC Occupational Exposure Limits. Follow safety guidelines for working in an RF Contact AT&T at 800-638-2822, option 9 and 3, and follow their instructions prior to performing

environment. maintenance or repairs beyond this point. Coulting Sign (CARSTP.-4L-65) This is AT&T site ____

> Caution Sign 2C Parapet (5" x 7")

Warning Sign #WA-1B-AL-128 Warning Sign #WA-2A-AL-128



in an RF environment could result in serious injur

Contact AT&T at 800-638-2822, option 9 and 3,

and request assistance prior to proceeding

Warring Sign State 15-AL-128 Ship is ATRE view USID Shall be used when barriers are present or will be deployed around AT&T antennas – Warning 1B

AT&T operates antennas at this site. In The Striped Area you are entering an area where radio frequency (RF) fields exceed the FCC Occupational Exposure Limits. Failure to follow safety guidelines for working

in an RF environment could result in serious injur

Contact AT&T at 800-638-2822, option 9 and 3,

and follow their instructions prior to performing

maintenance or repairs within the striped area.

Shall be used in lieu of barriers along with striping when barriers are not allowed— Warning 2A

REQUIRE HQ / MRFSE APPROVAL

CONTRACTOR SHALL INSTALL ALL INFORMATION SIGNAGE IN ACCORDANCE W/ AT&T WIRELESS DOCUMENT #03-0074, RF EXPOSURE POLICY AND RF SAFETY COMPLIANCE PROGRAM, LATEST

FABRICATION:

EDITION.

*SIGN I-1: ENTRANCE DOOR, SEE DETAIL 1A, THIS SHEET

SIGN 1 IS TO BE MADE ON THE 50 MIL ALUMINUM SHEETING (SIZE 8 INCHES BY 12 INCHES) W/ FOUR (4) $\frac{1}{4}$ INCH MOUNTING HOLES, ONE EACH CORNER OF THE SIGN FOR MOUNTING W/ HARDWARE W/ TIE WRAPS. THE MAIN BACKGROUND COLOR IS TO BE WHITE FRONT & BACK W/ BLACK LETTERING.

THE INFORMATION BAND SHALL BE 1.2 INCH SOLID GREEN BAND w. 0.5 INCH HIGH BLACK LETTERING. THE BODY TEXT SHALL BE IN BLACK LETTERING w/0.2 INCH HIGH LETTERS. THE REF LINE SHALL BE IN $\frac{1}{8}$ INCH

THE PLACEMENT OF TEXT SHALL BE DONE IN A MANNER THAT WILL PERMIT EASY READING FROM A DISTANCE OF APPROXIMATELY 6 FEET IN FRONT OF THE SIGN.

ALL PAINT WILL BE BAKED W/ENAMEL W/ UV PROTECTIVE COATING OVER THE FACE OF THE SIGN.

*SIGN 1-2: POLE, SEE DETAIL 1B, THIS SHEET

SIGN 2 MUST BE A NON METALLIC LABEL W/ AN ADHESIVE BACKING, THE LABEL SHALL BE MADE USING VINYL OR SIMILAR WEATHERPROOF MATERIAL. THE LABEL SHALL BE APPROXIMATELY 5X7 INCHES W/ A WHITE BACKGROUND AND BLACK LETTERING. THE GREEN BAND SHALL BE 1.375 INCH IN HEIGHT & THE LETTERING SHALL BE BLACK W/ 0.75 INCH HIGH LETTERS. THE TEXT LETTERING SHALL BE BLACK $w/\frac{1}{8}$ INCH HIGH LETTERS. UV PROTECTION SHALL BE PLACED OVER THE FRONT OF

*SIGN 1-3: BACK OF ANTENNAS, SEE DETAIL 1C & 3, THIS SHEET

*SIGN 3 IS A 1 INCH X 2 INCH PANEL THAT CAN BE APPLIED TO THE BACK OR SIDE OF AN ANTENNA TO IDENTIFY IT AS AN AT&T ANTENNA.

*SIGN 1-4: SIDE OF ANTENNAS, SEE DETAIL 1D & 3, THIS SHEET

SIGN 4 IS MADE FROM TRANSPARENT MATERIAL 1-1/2 INCHES WIDE & 24 INCHES LONG. THE LETTERING IS TO BE BLACK w_2^1 INCH LETTERING IN A VERTICAL COLUMN. THE SPACING BETWEEN WORDS MUST BE SUCH THAT IT IS EASILY READ & FILLS THE LENGTH OF THE SIGN.

SIGNAGE AND STRIPING INFORMATION

THE FOLLOWING INFORMATION IS A GUIDELINE W/ RESPECT TO PREVAILING STANDARDS LIMITING HUMAN EXPOSURE TO RADIO FREQUENCY ENERGY AND SHOULD BE USED AS SUCH. IF THE SITE'S EMF REPORT OR ANY LOCAL, STATE OR FEDERAL GUIDELINES OR REGULATIONS SHOULD BE IN CONFLICT w/ ANY PART OF THESE NOTES OR PLANS, THE MORE RESTRICTIVE GUIDELINE OR REGULATION SHALL BE FOLLOWED AND OVERRIDE THE LESSER.

IF THE PUBLIC LIMIT OF RF EXPOSURE ON THE SITE IS EXCEEDED AND THE AREA IS PUBLICLY ACCESSIBLE (e.g. ROOF ACCESS DOOR THAT CANNOT BE LOCKED, OR FIRE EGRESS) THEN BOTH BARRICADES AND STRIPING SHALL BE PLACED AROUND THE ANTENNAS. THE EXACT EXTENT OF THE BARRICADES AND STRIPING SHALL BE DETERMINED BY THE EMF REPORT. USE THE PLANS AS A GUIDELINE FOR PLACEMENT OF SUCH BARRICADES AND STRIPING.

ALL TRANSMIT ANTENNAS REQUIRE A THREE LANGUAGE WARNING SIGN WRITTEN IN ENGLISH, SPANISH, AND CHINESE. THIS SIGN SHALL BE PROVIDED TO THE CONTRACTOR AND THE AT&T CONSTRUCTION PROJECT MANAGER AT THE TIME OF CONSTRUCTION. THE LARGER SIGN SHALL BE PLACED IN PLAIN SIGHT AT ALL ROOF ACCESS LOCATIONS AND ON ALL BARRICADES. THE SMALLER SIGN SHALL BE PLACED ON THE ANTENNA ENCLOSURES IN A MANNER THAT IS EASILY SEEN BY ANY PERSON ON THE ROOF. WARNING SIGNS SHALL COMPLY w/ ANSI C95.2 COLOR, SYMBOL, AND CONTENT CONVENTIONS. ALL SIGNS SHALL HAVE AT&T'S NAME AND THE COMPANY CONTACT INFORMATION (e.g. TELEPHONE NUMBER) TO ARRANGE FOR ACCESS TO THE RESTRICTED AREAS. THIS TELEPHONE NUMBER SHALL BE PROVIDED TO THE CONTRACTOR BY THE AT&T CONSTRUCTION PROJECT

MANAGER AT THE TIME OF CONSTRUCTION PHOTOS OF ALL STRIPING, BARRICADES & SIGNAGE SHALL BE PART OF THE CONTRACTORS CLOSE OUT PACKAGE & SHALL BE TURNED INTO THE AT&T CONSTRUCTION PACKAGE & SHALL BE TURNED INTO THE AT&T CONSTRUCTION PROJECT MANAGER AT THE END OF CONSTRUCTION.

STRIPING SHALL BE DONE w/ FADE RESISTANT YELLOW SAFETY PAINT IN A CROSS-HATCH PATTERN AS DETAILED BY THE CONSTRUCTION DRAWINGS. ALL BARRICADES SHALL BE MADE OF AN RF FRIENDLY MATERIAL SO AS NOT TO BLOCK OR INTERFERE w/ THE OPERATION OF THE ANTENNAS. BARRICADES SHALL BE PAINTED w/ FADE RESTRAINT YELLOW SAFETY PAINT. THE CONTRACTOR SHALL PROVIDE ALL RF FRIENDLY BARRICADES NEEDED, & SHALL PROVIDE THE AT&T CONSTRUCTION PROJECT MANAGER w/ A DETAILED SHOP DRAWING OF EACH BARRICADE UPON CONSTRUCTION COMPLETION.

16331 NE 72ND AVE. STE. 2100 PORTLAND, OR 97201

Vendor:

PREPARED FOR

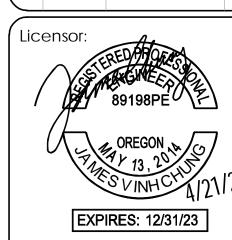
23 MAUCHLY #110 **IRVINE, CA 92618**

J5 PROJECT ID: P-071612

AT&T Site ID:

PX30





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CASCADE **SUMMIT** 21400 SOUTH SALAMO ROAD

WEST LINN, OR 97068

Sheet Title:

SITE SIGNAGE

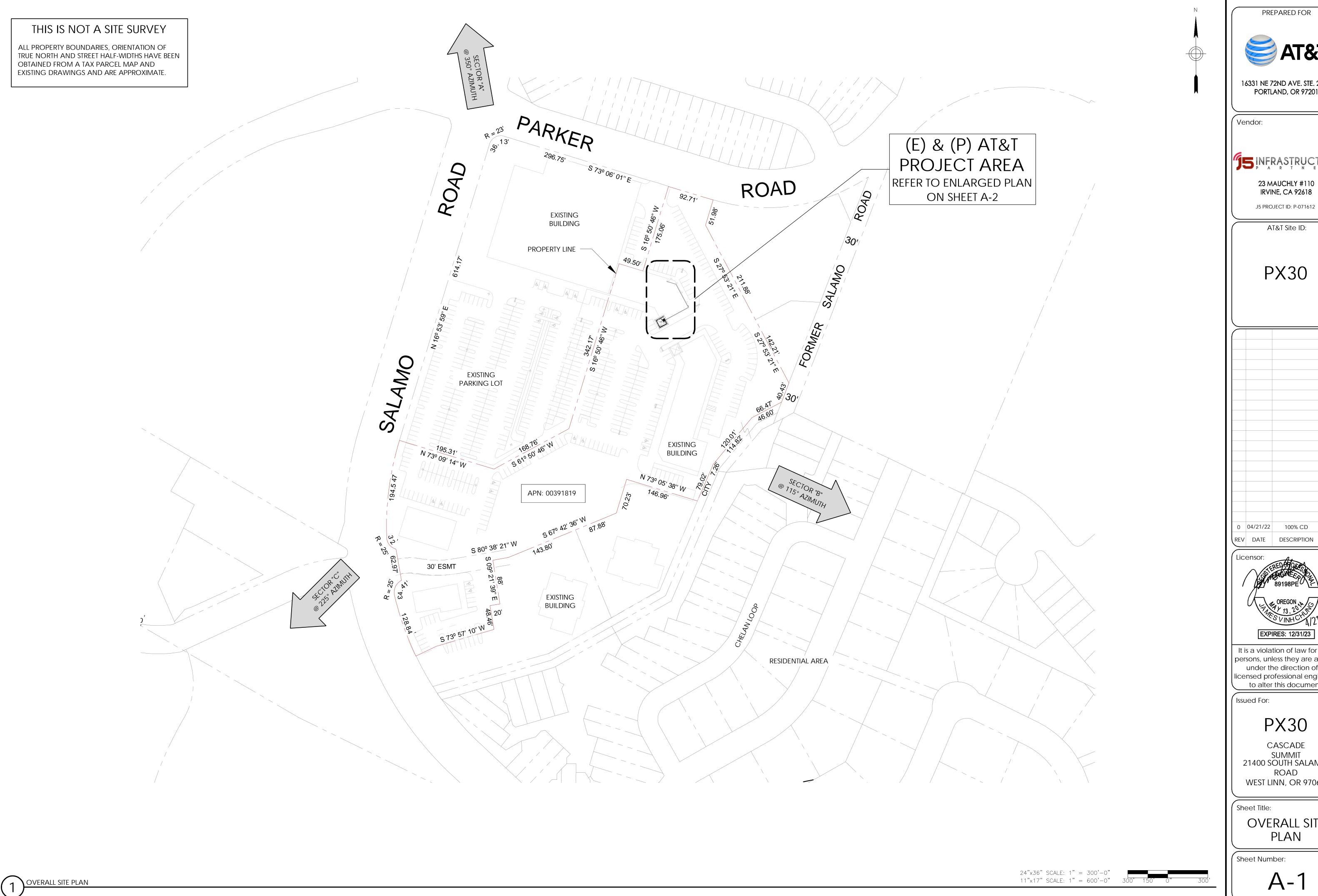
Sheet Number:

GN-2

ALERTING & INFORMATION SIGNAGE

GENERAL NOTES

N.T.S.



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Vendor:

15 INFRASTRUCTURES

23 MAUCHLY #110 IRVINE, CA 92618

AT&T Site ID:

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0 04/21/22 100% CD MLDV REV DATE DESCRIPTION Licensor:

EXPIRES: 12/31/23

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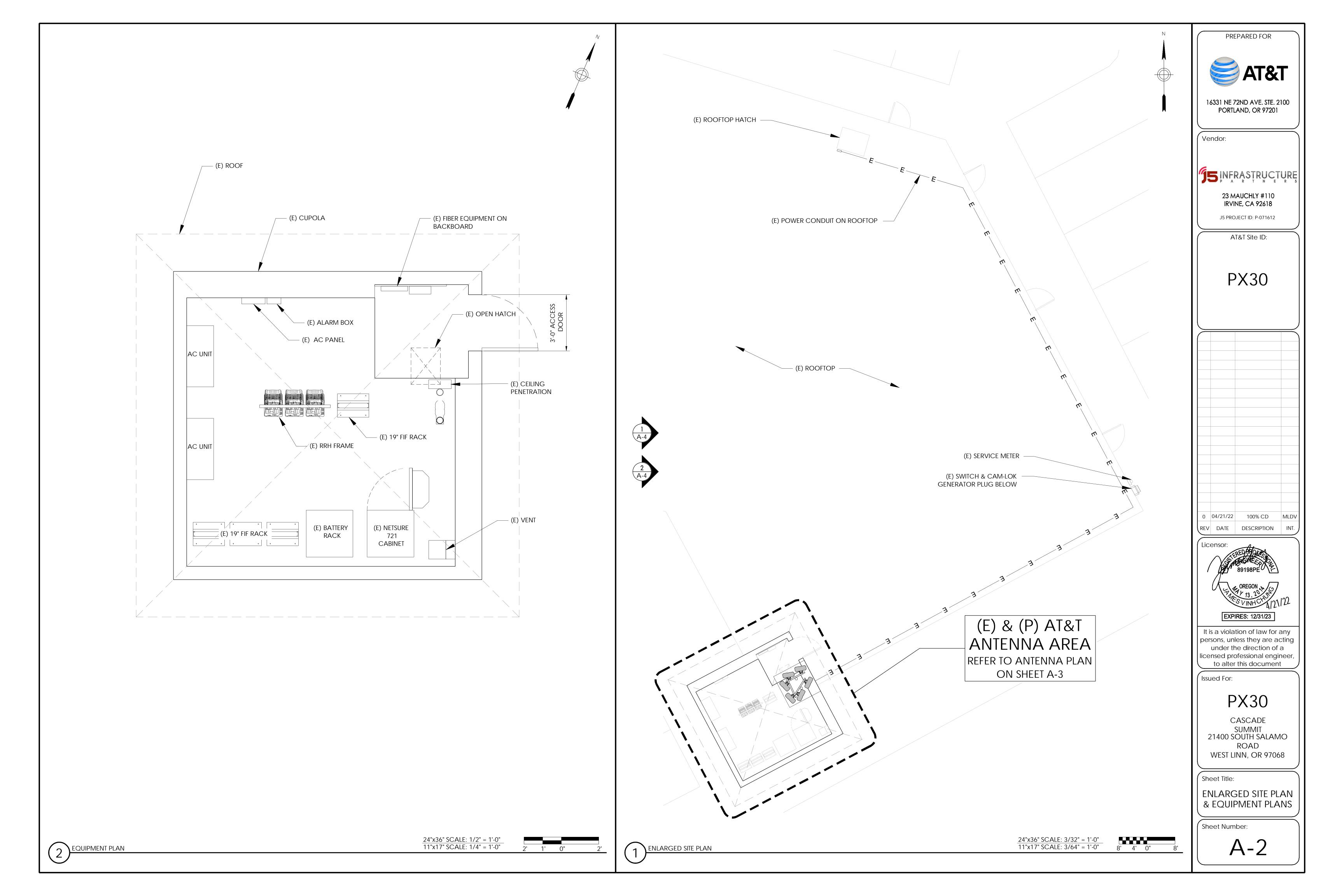
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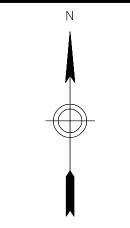
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CASCADE SUMMIT 21400 SOUTH SALAMO ROAD WEST LINN, OR 97068

OVERALL SITE PLAN

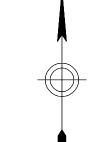
Sheet Number:





NOTE:

1. AN ANTENNA MOUNT ANALYSIS MUST BE
PERFORMED AND DETERMINED ADEQUATE FOR
THE PROPOSED LOADING PRIOR TO INSTALLING
ANY NEW EQUIPMENT ON THE TOWER.



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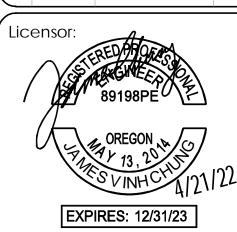
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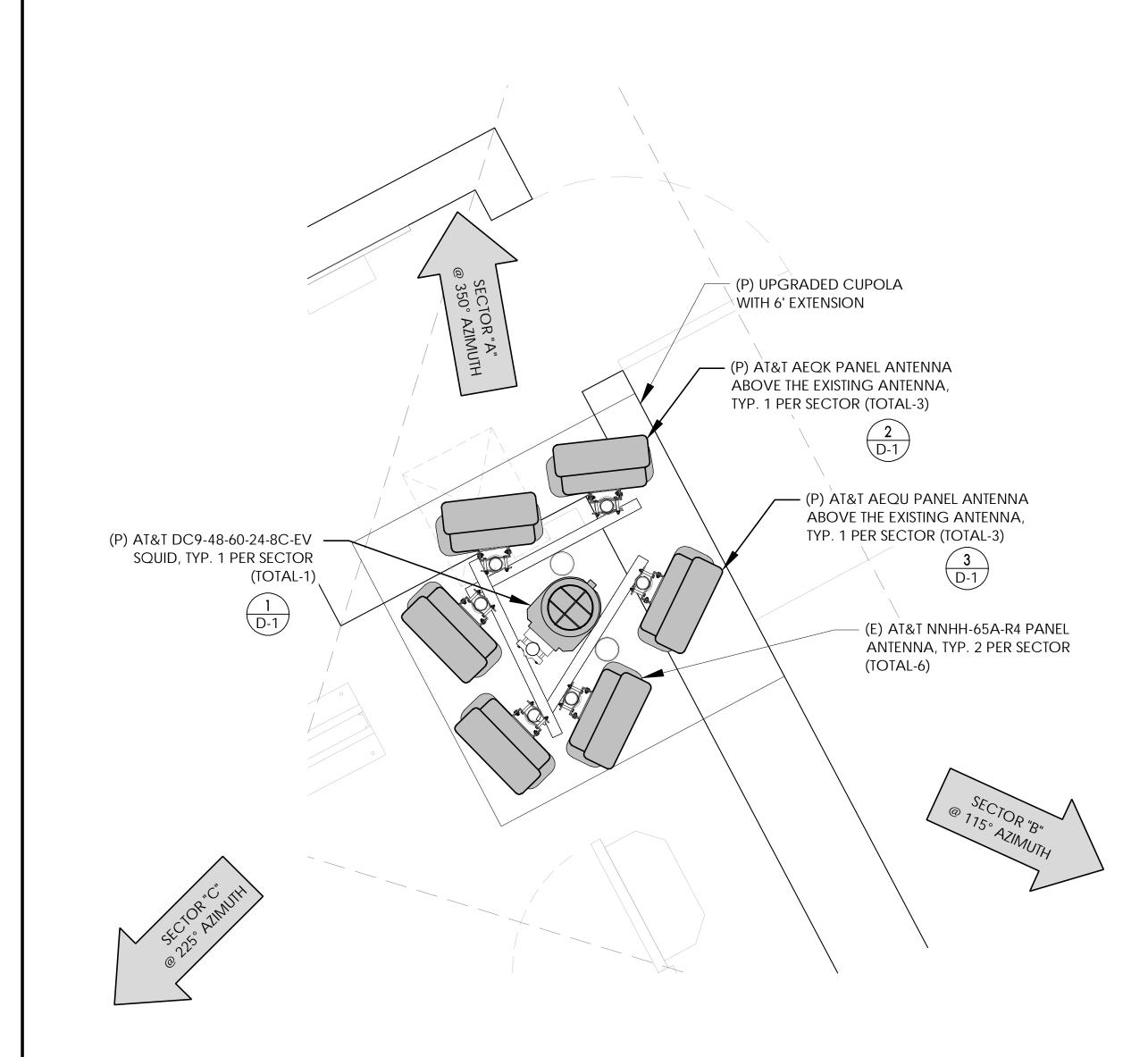
WEST LINN, OR 97068

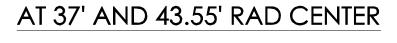
Sheet Title:
EXISTING AND
PROPOSED ANTENNA

PLANS

Sheet Number:

A-3





8' 4' 0" 8'

AT 37' RAD CENTER

24"x36" SCALE: 3/32" = 1'-0" 11"x17" SCALE: 3/64" = 1'-0"

(E) AT&T NNHH-65A-R4 PANEL ANTENNA, TYP. 2 PER SECTOR

- (E) CUPOLA

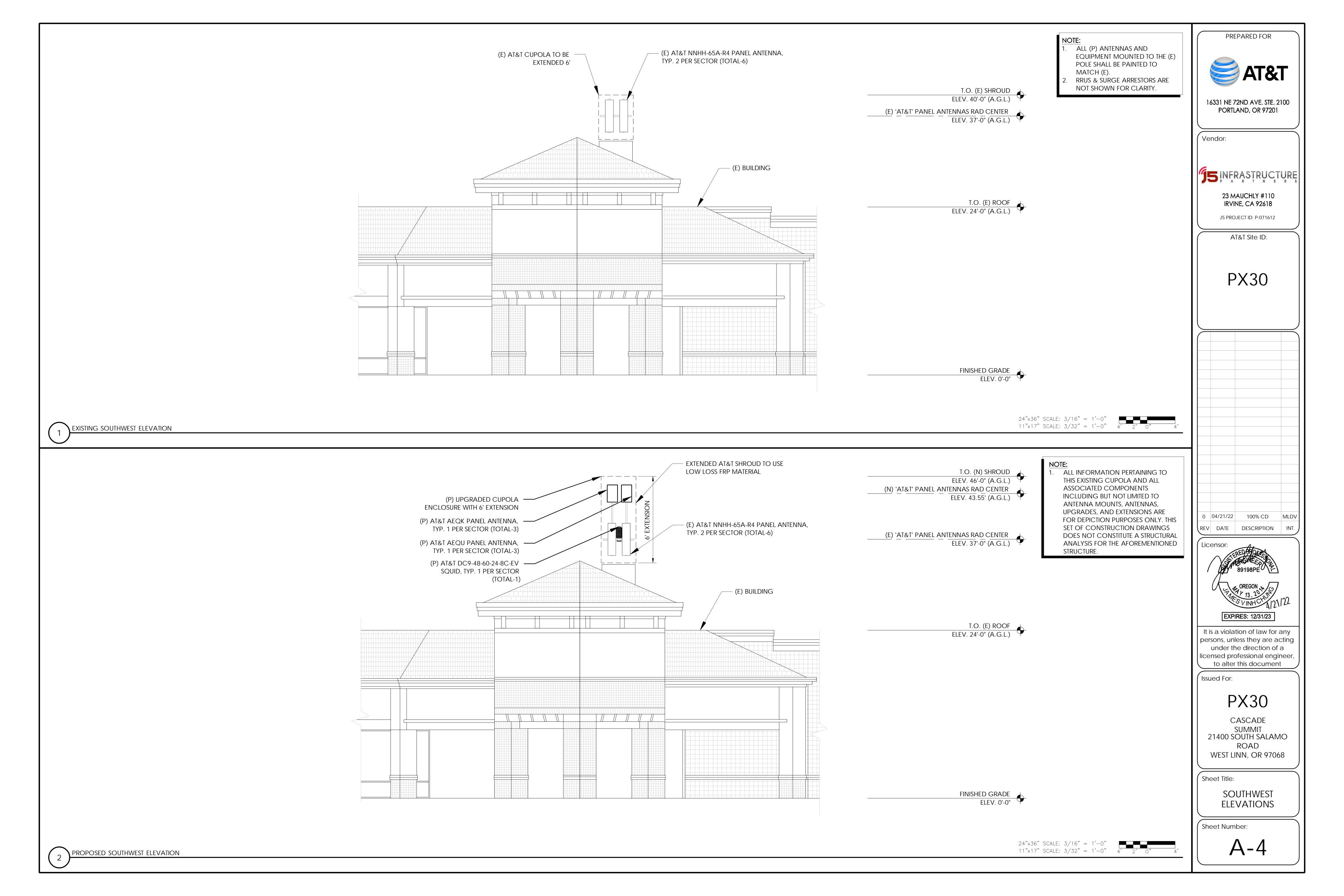
(TO BE EXTENDED 6')

(TOTAL-6)

PROPOSED ANTENNA PLAN

24"x36" SCALE: 3/32" = 1'-0" 11"x17" SCALE: 3/64" = 1'-0"

 $\frac{}{}$ 8'



		VERSION: UPDATED:	1 12/16/2021, 4:3	9:21 PM		(E)	ANTENNA SCHEDULE		
	POS	AZIMUTH	RAD CENTER	MECHANICAL DOWNTILT	ANTENNA MAKE	ANTENNA MODEL	RRH MODEL	SURGE SUPPRESSOR	FEEDER TYPE
	A1	350°	37-0"	0	COMMSCOPE	NNHH-65A-R4			
ζ {									
SECION A	A2	350°	37-0"	0	COMMSCOPE	NNHH-65A-R4			
	B1	115°	37-0"	0	COMMSCOPE	NNHH-65A-R4			
ے د									(1) DUAL MODE FIDED HIMADED
SECION	B2	115°	37-0"	0	COMMSCOPE	NNHH-65A-R4			(1) DUAL MODE FIBER JUMPER (3) DC JUMPER
	C1	225°	37-0"	0	COMMSCOPE	NNHH-65A-R4			
ر ج									
7 1 1	C2	225°	37-0"	0	COMMSCOPE	NNHH-65A-R4			

(E) Antenna Azimuths are ESTIMATED AND ARE TO BE VERIFIED BY RF.

NOTES TO CONTRACTOR:

- CONTRACTOR IS TO REFER TO AT&T'S MOST CURRENT RADIO FREQUENCY DATA SHEET (RFDS) PRIOR TO CONSTRUCTION.
- Cable Lengths were determined based on VISUAL INSPECTION DURING SITE-WALK. CONTRACTOR TO VERIFY ACTUAL LENGTH DURING PRE-CONSTRUCTION WALK.

CONTRACTOR TO VERIFY PORTS HAVE SUFFICIENT ROOM.



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23 MAUCHLY #110 IRVINE, CA 92618

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REV	DATE	DESCRIPTION	INT
0	04/21/22	100% CD	MLD



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CASCADE SUMMIT 21400 SOUTH SALAMO ROAD

WEST LINN, OR 97068

Sheet Title: **EXISTING AND** PROPOSED ANTENNA SCHEDULES

Sheet Number:

EXISTING ANTENNA SCHEDULE

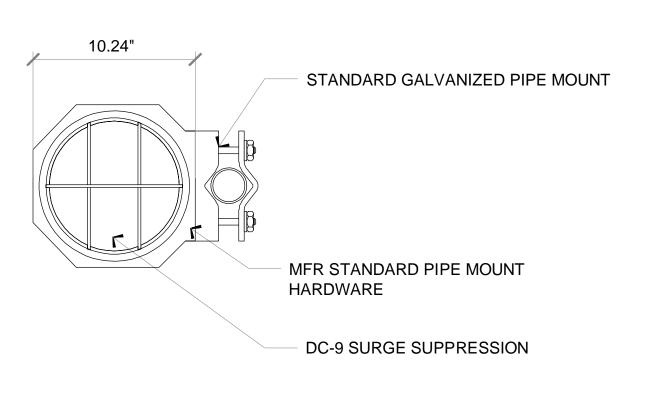
	RFDS VERSION: 1 DATE UPDATED: 12/16/2021, 4:39:21 PM			9:21 PM		(P) AI	NTENNA SCHEDULE		
-	POS	AZIMUTH	RAD CENTER	MECHANICAL DOWNTILT	ANTENNA MAKE	ANTENNA MODEL	RRH MODEL	SURGE SUPPRESSOR	FEEDER TYPE
	A1	350°	37-0"	0	COMMSCOPE	NNHH-65A-R4			(1) DUAL MODE FIBER JUMPER (1) RFFT-24SM-001-50M (3) DC JUMPER (3) PWRT-208-S
"A" YC	A1	350°	43.55'	0	NOKIA	AEQK			
SECIOR	A2	350°	37-0"	0	COMMSCOPE	NNHH-65A-R4			
	A2	350°	43.55'	0	NOKIA	AEQU			
	B1	115°	37-0"	0	COMMSCOPE	NNHH-65A-R4			
JR "B"	B1	115°	43.55'	0	NOKIA	AEQK		(1) DC9-48-60-24-8C-EV	
SECIOR	B2	115°	37-0"	0	COMMSCOPE	NNHH-65A-R4			
-	B2	115°	43.55'	0	NOKIA	AEQU			
	C1	225°	37-0"	0	COMMSCOPE	NNHH-65A-R4			
ا ا	C1	225°	43.55'	0	NOKIA	AEQK			
SECIOR	C2	225°	37-0"	0	COMMSCOPE	NNHH-65A-R4			
-	C2	225°	43.55'	0	NOKIA	AEQU			

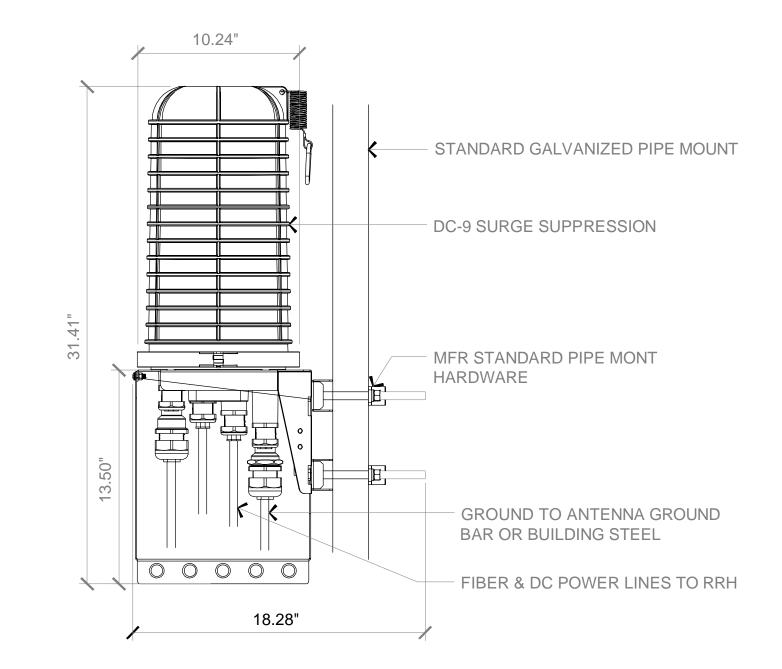
RAYCAP DC9-48-60-24-8C-EV SURGE SUPPRESSION

COLOR: BLACK/SILVER

DIMENSIONS: 10.24" DIA X 31.41" TALL W/ 13.50" BASE

WEIGHT:A: +/- 27.8 LBS. (INCLUDING MOUNTING HARDWARE)





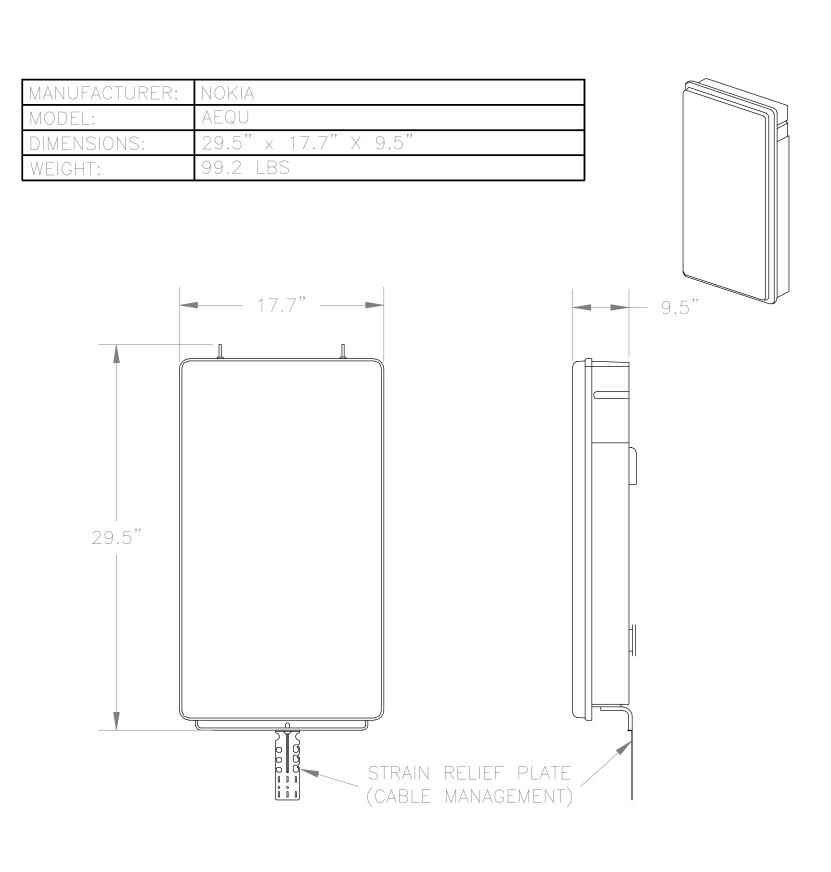


AirScale High Power MAA benefits - 5G Adaptive Antenna System for optimized capacity and coverage - Digital beamforming for multi-user MIMO - Connectivity with AirScale BBU (via eCPRI) - Beamforming capable 64T64R with total 200W output power - 32TRX + 32TRX split mode support

AEQK AirScale MAA 64T64R 192AE n77 200W

Technical datasheet

	Product Specifications
Standard	3GPP/FCC NR compliant, TDD
Band / Frequency range	3700~3980MHz
Supported RAT	5G
Max. supported modulation	256QAM
Number of TX/RX paths	64T / 64R
MIMO streams	16
Instantaneous bandwidth IBW	200MHz
Occupied bandwidth OBW	100MHz+100MHz for 32TRX + 32TRX split mode
Total average EIRP	77dBm
Max. output power per TRX	3.125 W / TRX (200 W total) - SW settable up to 13 dB down
Dimensions / Volume	750 x 450 x 240 mm (H x W x D)
Weight	45kg w/o bracket
Supply voltage / Connector type	DC -40.5 V57V / 2 pole connector
Power consumption	727 W (75% DL duty cycle, ETSI Average)
Optical ports	2xSFP28, 10/25GE eCPRI
Other interfaces / Connector type	LMI / HDMI, RF monitor port / SMA, Control AISG, External Alarms / MDR26, status LEDs
Operational temperature range	-40degC to +55C
Cooling	Natural convection cooling
Installation options / mechanical tilt	Pole, wall, with vertical adjustment of ±15° (thermally limited)
Ingress / Surge protection	IP65/Class II 20KA



NOKIA AEQU ANTENNA SPECIFICATIONS
N.T.S.

PREPARED FOR

AT&T

16331 NE 72ND AVE. STE. 2100

PORTLAND, OR 97201

Vendor:

J5 INFRASTRUCTURE

23 MAUCHLY #110 IRVINE, CA 92618

J5 PROJECT ID: P-071612

AT&T Site ID:

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CASCADE SUMMIT 21400 SOUTH SALAMO ROAD

WEST LINN, OR 97068

Sheet Title:

DETAILS

Sheet Number:

D-

NOTES TO CONTRACTOR:

CONTRACTOR IS TO REFER TO AT&T'S MOST CURRENT RADIO FREQUENCY DATA SHEET (RFDS) PRIOR TO CONSTRUCTION.

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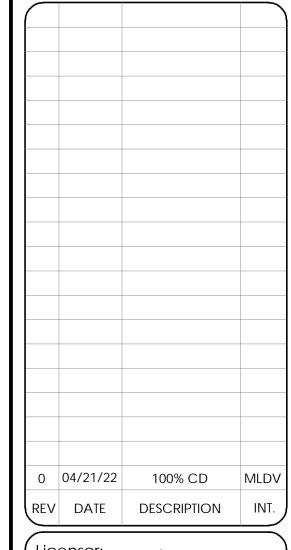


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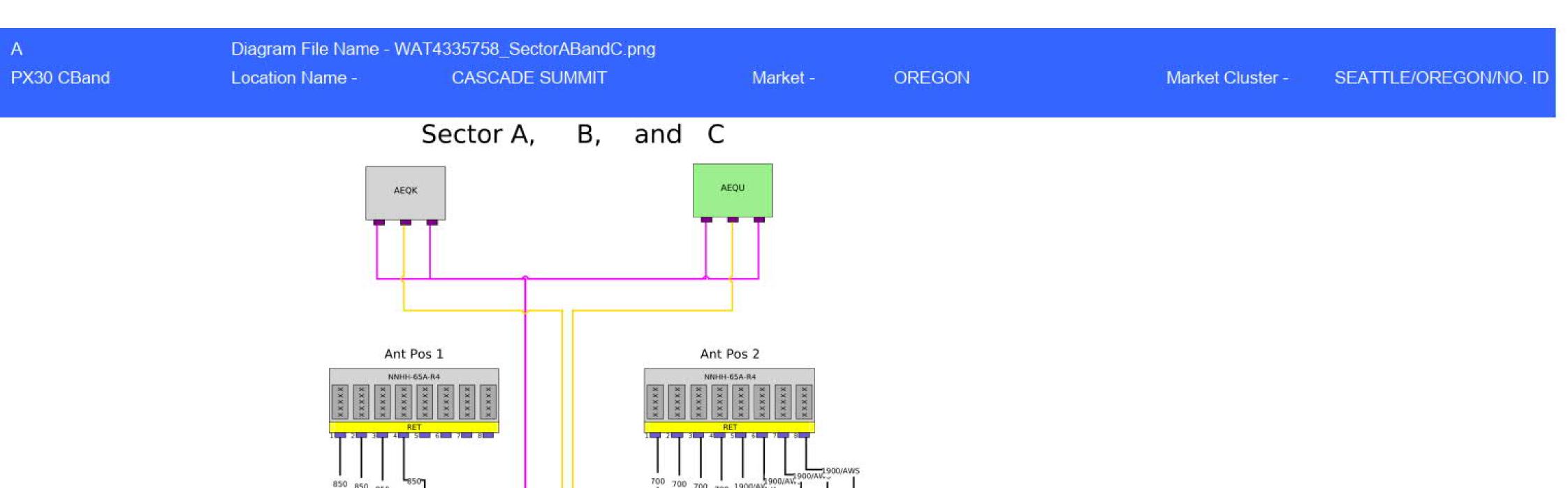
CASCADE SUMMIT 21400 SOUTH SALAMO ROAD

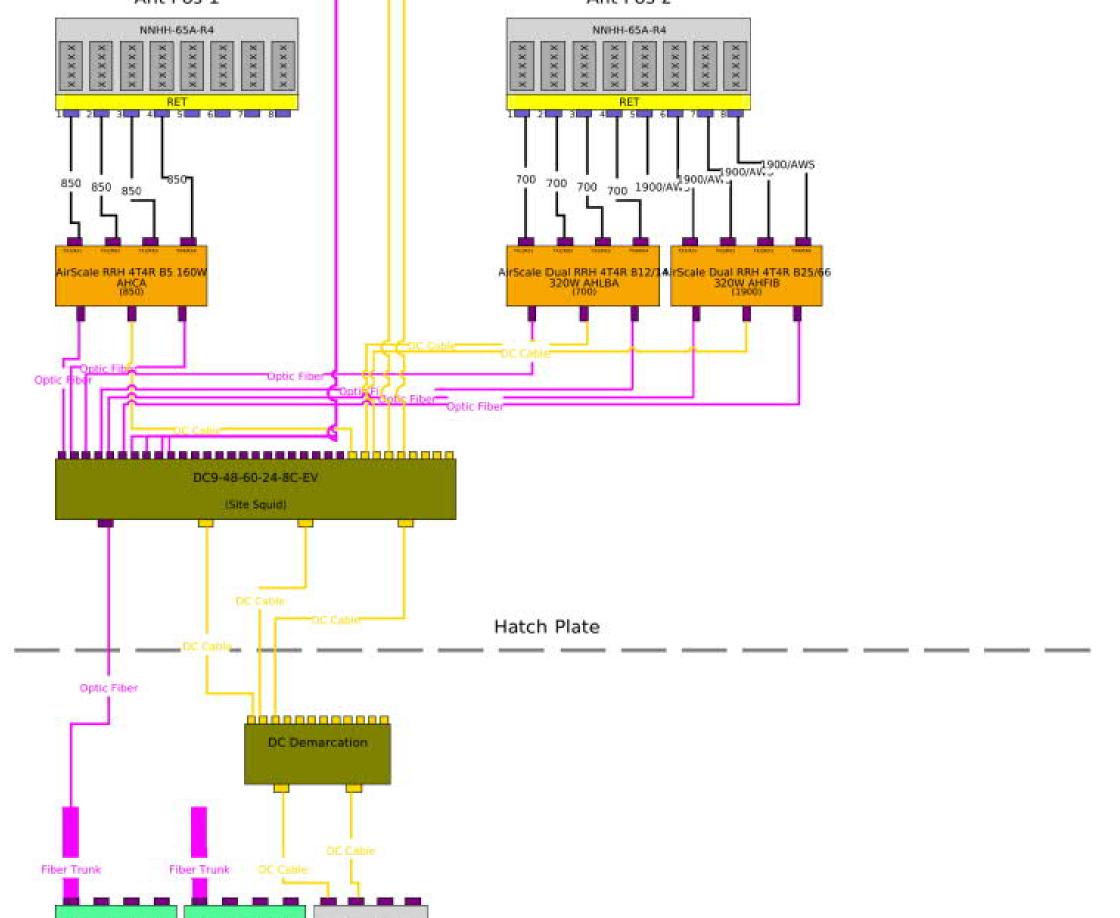
WEST LINN, OR 97068

Sheet Title:

PLUMBING DIAGRAM

Sheet Number:





Power Plant

Baseband Unit

(ORON000554)

(ORL00554)

Diagram - Sector

Atoll Site Name -

Comments:

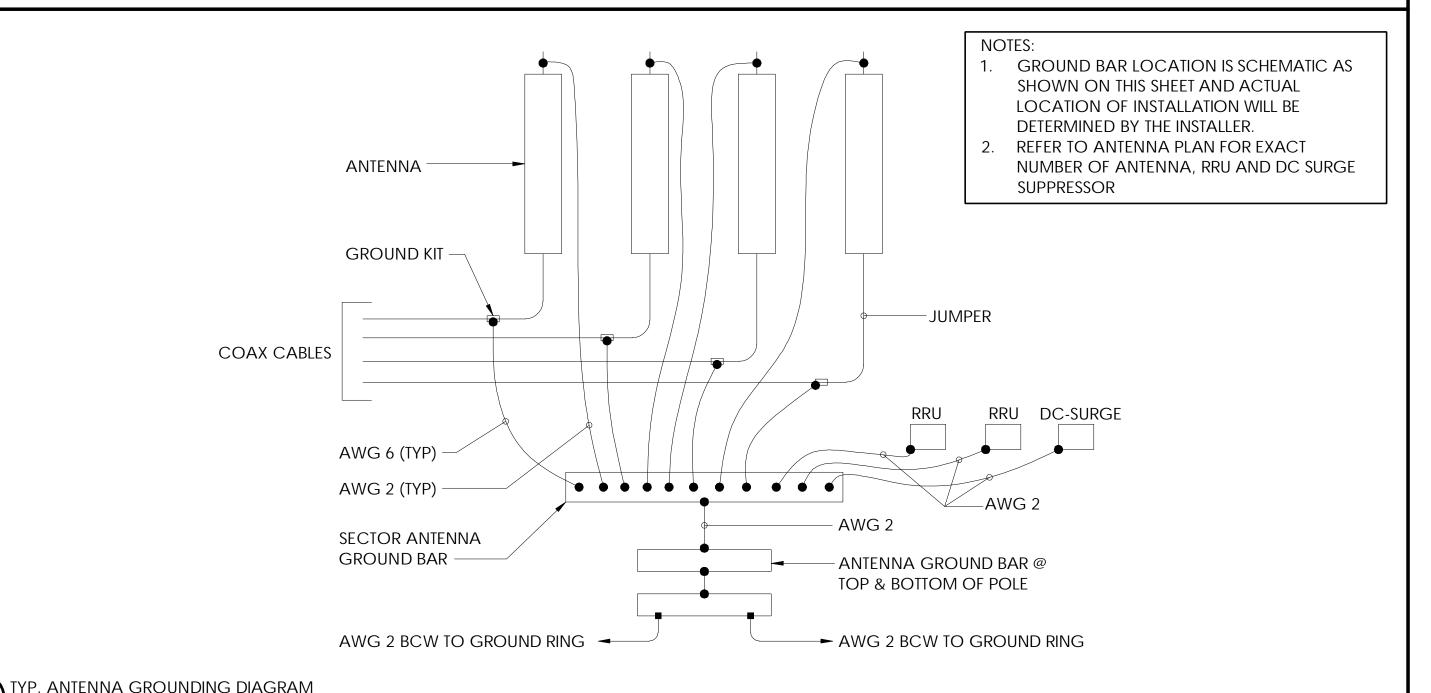
GROUNDING NOTES:

- 1. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING INSTALLATION REQUIREMENTS AND CONSTRUCTION ACCORDING TO SITE CONDITIONS.
- 2. ALL GROUNDING CONDUCTORS: #2 AWG SOLID BARE TINNED COPPER WIRE UNLESS OTHERWISE NOTED.
- 3. GROUND BAR LOCATED IN BASE OF EQUIPMENT WILL BE PROVIDED, FURNISHED AND INSTALLED BY THE VENDOR.
- 4. ALL BELOW GRADE CONNECTIONS: EXOTHERMIC WELD TYPE, ABOVE GRADE CONNECTIONS: EXOTHERMIC WELD TYPE.
- 5. GROUND RING SHALL BE LOCATED A MINIMUM OF 24" BELOW GRADE OR 6" MINIMUM BELOW THE FROST LINE.
- 6. INSTALL GROUND CONDUCTORS AND GROUND ROD MINIMUM OF 1'-0" FROM EQUIPMENT CONCRETE SLAB, SPREAD FOOTING, OR FENCE.
- 7. EXOTHERMIC WELD GROUND CONNECTION TO FENCE POST: TREAT WITH A COLD GALVANIZED SPRAY.
- 8. GROUND BARS:
 - A) EQUIPMENT GROUND BUS BAR (EGB) LOCATED AT THE BOTTOM OF ANTENNA POLE/MAST FOR MAKING GROUNDING JUMPER CONNECTIONS TO COAX FEEDER CABLES SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. JUMPERS (FURNISHED BY OWNERS) SHALL BE INSTALLED AND CONNECTED BY ELECTRICAL CONTRACTOR.
- 9. ALL GROUNDING INSTALLATIONS AND CONNECTIONS SHALL BE MADE BY ELECTRICAL CONTRACTOR.
- 10. OBSERVE N.E.C. AND LOCAL UTILITY REQUIREMENTS FOR ELECTRICAL SERVICE GROUNDING.
- 11. GROUNDING ATTACHMENT TO TOWER SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS OR AT GROUNDING POINTS PROVIDED (2 MINIMUM).
- 12. IF EQUIPMENT IS IN A C.L. FENCE ENCLOSURE, GROUND ONLY CORNER POSTS AND SUPPORT POSTS OF GATE. IF CHAIN LINK LID IS USED, THEN GROUND LID ALSO.
- 13. GROUNDING AT PPC CABINET SHALL BE VERTICALLY INSTALLED.
- 14. ALL GROUNDING FOR ANTENNAS SHALL BE CONNECTED SO THAT IT WILL BY-PASS MAIN BUSS BAR.
- 15. ALL EMT RUNS SHALL BE GROUNDED AND HAVE A BUSHING, NO PVC ABOVE GROUND.
- 16. USE SEPARATE HOLES FOR GROUNDING AT BUSS BAR. NO "DOUBLE-UP" OF LUGS.
- 17. POWER AND TELCO CABINETS SHALL BE GROUNDED (BONDED) TOGETHER.
- 18. NO LB'S ALLOWED ON GROUNDING.

- 19. PROVIDE STAINLESS STEEL CLAMP AND BRASS TAGS ON COAX AT ANTENNAS AND DOGHOUSE.
- 20 ALL ELECTRICAL AND GROUNDING AT THE CELL SITE SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE (NEC), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 780 (LATEST EDITION), AND MANUFACTURER SPECIFICATION.
- 21 IF THE AC PANEL IN THE POWER CABINET IS WIRED AS SERVICE ENTRANCE, THE AC SERVICE GROUND CONDUCTOR SHALL BE CONNECTED TO GROUND ELECTRODE SYSTEM. WHEN THE AC PANEL IN THE POWER CABINET IS CONSIDERED A SUB-PANEL, THE GROUND WIRE SHALL BE INSTALLED IN THE AC POWER CONDUIT. THE INSTALLATION SHALL BE PER LOCAL AND NATIONAL ELECTRIC CODE (NFPA-70).
- 22 EXOTHERMIC WELDING IS RECOMMENDED FOR GROUNDING CONNECTION WHERE PRACTICAL. OTHERWISE, THE CONNECTION SHALL BE MADE USING COMPRESSION TYPE-2 HOLES. LONG BARREL LUGS OR DOUBLE CRIMP CLAMP "C" CLAMP. THE COPPER CABLES SHALL BE COATED WITH ANTIOXIDANT (COPPER SHIELD) BEFORE MAKING THE CONNECTIONS. THE MANUFACTURER'S TORQUING RECOMMENDATIONS ON THE BOLT ASSEMBLY TO SECURE CONNECTIONS SHALL BE FOLLOWED.
- 23 THE ANTENNA CABLES SHALL BE GROUNDED AT THE TOP AND BOTTOM OF THE VERTICAL RUN FOR LIGHTING PROTECTION. THE ANTENNA CABLE SHIELD SHALL BE BONDED TO A COPPER GROUND BUSS AT THE LOWER MOST POINT OF A VERTICAL RUN JUST BEFORE IT BEGINS TO BEND TOWARD THE HORIZONTAL PLANE. WIRE RUNS TO GROUND SHALL BE KEPT AS STRAIGHT AND SHORT AS POSSIBLE. ANTENNA CABLE SHIELD SHALL BE GROUNDED JUST BEFORE ENTERING THE CELL CABINET. ANY ANTENNA CABLES OVER 200 FEET IN LENGTH SHALL ALSO BE EQUIPPED WITH ADDITIONAL GROUNDING AT MID-POINT.
- 24 ALL GROUNDING CONDUCTORS INSIDE THE BUILDING SHALL BE RUN IN CONDUIT RACEWAY SYSTEM, AND SHALL BE INSTALLED AS STRAIGHT AS PRACTICAL WITH MINOR BENDS TO AVOID OBSTRUCTIONS. THE BENDING RADIUS OF ANY #2 GROUNDING CONDUCTOR IS 8". PVC RACEWAY MAY BE FLEXIBLE OR RIGID PER THE FIELD CONDITIONS. GROUNDING CONDUCTORS SHALL NOT MAKE CONTACT WITH ANY METALLIC CONDUITS, SURFACES OR EQUIPMENT.
- 25 PROVIDE PVC SLEEVES WHERE GROUNDING CONDUCTORS PASS THROUGH THE BUILDING WALLS AND /OR CEILINGS.
- 26. INSTALL GROUND BUSHINGS ON ALL METALLIC CONDUITS AND BOND TO THE EQUIPMENT GROUND BUSS IN THE PANEL BOARD.
- 27 GROUND ANTENNA BASES, FRAMES, CABLE RACKS AND OTHER METALLIC COMPONENTS WITH #2 GROUNDING CONDUCTORS AND CONNECT TO INSULATED SURFACE MOUNTED GROUND BARS. CONNECTION DETAILS SHALL FOLLOW MANUFACTURER'S SPECIFICATIONS FOR GROUNDING.
- 28. ALL PROPOSED GROUNDING CONDUCTORS SHALL BE ROUTED AND CONNECTED TO THE MAIN GROUND BAR OR EXISTING GROUND RING.

GROUNDING NOTES

N.T.S



KEY NOTES:

(E) ANTENNA GROUND BAR TO BE VERIFIED @ FIELD

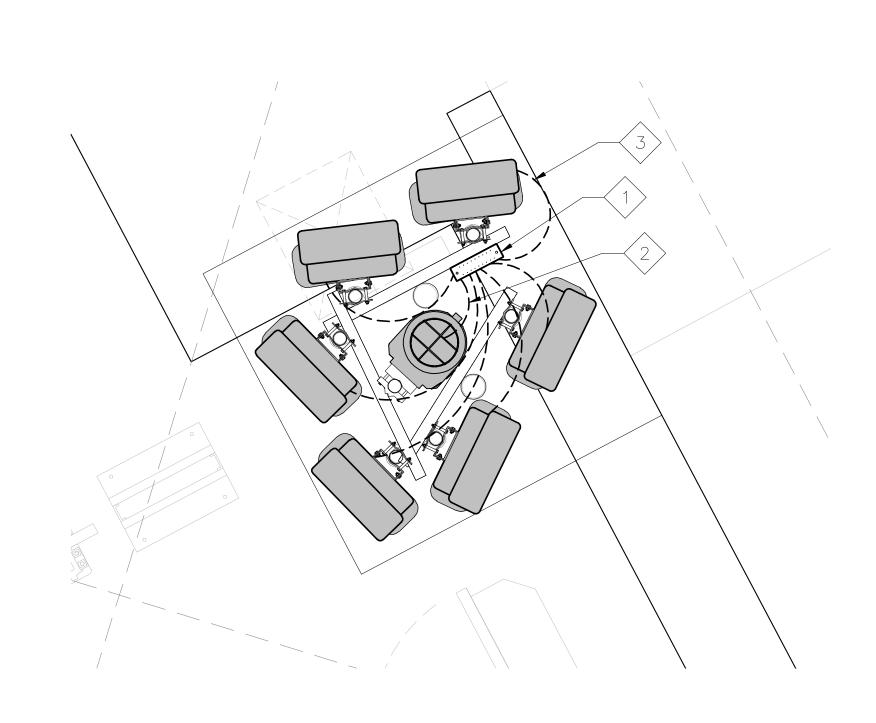
2 AWG 2 INSULATED COPPER GROUND WIRE FROM (N) RRUS AND DC6 TO (E) ANTENNA GROUND BAR

AWG 6 INSULATED COPPER GROUND WIRE FROM NEW ANTENNA GROUND KIT TO (E) ANTENNA GROUND BAR

NOTES

1. REFER TO TYP. ANTENNA GROUNDING DIAGRAM

2. (E) GROUND WIRES ARE NOT SHOWN FOR CLARITY



2 ANTENNA GROUNDING PLAN

STAT&T

PREPARED FOR

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Vendor:

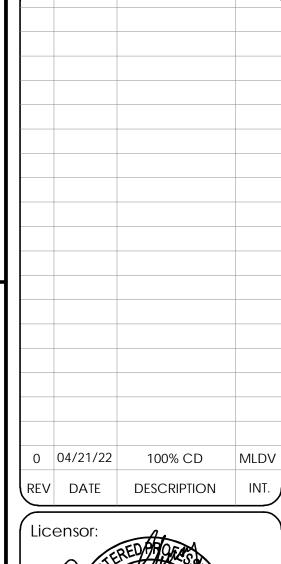


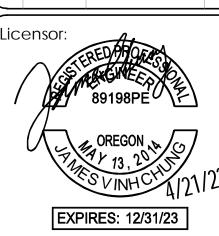
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J5 PROJECT ID: P-071612

AT&T Site ID:

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ROAD

WEST LINN, OR 97068

Sheet Title:

GROUNDING PLANS & NOTES

Sheet Number:

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NOT USED

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N.T.S.

