PROJECT DESCRIPTION

TOWER SCOPE OF WORK:
- REMOVE (3+3) NOKIA AEQK+AEQU STACKED ANTENNAS, (1+1) PER SECTOR
- REMOVE (6) KAELUS TMA2117F00V1-1 TMAS, (2) PER SECTOR
- REMOVE (6) KATHREIN 78211273V02 TMAS, (2) PER SECTOR
- INSTALL (3+3) ERICSSON AIR6419 B77G+ERICSSON AIR6419 B77D, (2) PER SECTOR
- INSTALL (6) COMMSCOPE TMAT192123B68-31 TMAS, (2) PER SECTOR
- INSTALL (6) COMMSCOPE TMAT192123B68-21 TMAS, (2) PER SECTOR

GROUND SCOPE OF WORK:
- REMOVE (3) AIRSCALE DUAL RRH 4T4R B12/14/29 370W AHLBBA, (1) PER SECTOR
- REMOVE (3) B25 RRH 4X30-4R RRHS, (1) PER SECTOR
- REMOVE (3) B66A RRH4X45-4R RRHS, (1) PER SECTOR
- REMOVE (3) AIRSCALE RRH 4T4R B5 160W AHCA, (1) PER SECTOR
- REMOVE (3) RRH4x25-WCS-4R RRHS, (1) PER SECTOR
- REMOVE (2) C48/24 1500 CONVERTERS FROM VERTIV 512 POWER PLANT
- INSTALL (3) 4490 B5/B12A RRH'S, (1) PER SECTOR
- INSTALL (3) 4890 B25/B66 RRH'S, (1) PER SECTOR
- INSTALL (3) 4494 B14/B29 RRH'S, (1) PER SECTOR
- INSTALL (3) 4471 B30 RRH'S, (1) PER SECTOR
- INSTALL (1) VERTIV 48 TO 58 CONVERSION KIT IN VERTIV 512 POWER PLANT
- INSTALL (8) VERTIV C48/58 -2000P3 CONVERTERS IN VERTIV 512 POWER PLANT
- INSTALL (2) 6651 & (1) 6610 IN PURCELL CABINET
- INSTALL (24) BREAKERS IN EXISTING VERTIV 512 POWER PLANT

PROJECT INFORMATION

SITE NAME:	SOUTH HILL MALL
USID:	75042
FA#:	10038029
SITE ADDRESS:	3310 SOUTH MERIDIAN PUYALLUP, WA 98373
PARCEL NUMBER (APN):	6021010051
PROPERTY OWNER:	AMERICAN TOWER COMPANY
STRUCTURE TYPE:	80'-0" STEALTH MONOPOLE
SITE TYPE:	STEALTH MONOPOLE
LATITUDE (NAD 83):	47.1597389° / 47°09'35.1"N
LONGITUDE (NAD 83):	-122.2966°/ 122°17'47.8"W
GROUND ELEVATION:	±434' (AMSL)
COUNTY:	PIERCE COUNTY
ZONING JURISDICTION:	CITY OF PUYALLUP
CURRENT ZONING:	CG GENERAL COMMERCIAL
AT&T LEASE AREA:	320 SQ. FT.
APPLICANT:	AT&T MOBILITY 60 WEST AVENUE WAYNE, PA 19087
TOWER OWNER:	AT&T TOWER
TOWER OWNER SITE ID:	TBD

City of Puyallup Planning Division APPROVED
See permit conditions.
NComstock
04/30/2025
1:37:32 PM

RFDS DATA

RFDS ID: 20520 DATED: 02/29/2024
REVISION: TBD VERSION: TBD
UPDATED BY: ea1814
DATE/TIME UPDATED: 01/09/2025

811 Know what's below. Call before you dig.
TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WASHINGTON, CALL UTILITY NOTIFICATION CENTER
TOLL FREE: 1-800-424-5555 OR www.callbeforeyoudig.org
WASHINGTON STATUTE REQUIRES MIN OF 2 WORKING DAYS NOTICE BEFORE YOU EXCAVATE

Approval of submitted plans is not an approval of omissions or oversights by this office or non compliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable codes and regulations of the local government.

The approved construction plans, documents, and all engineering must be posted on the job at all inspections in a visible and readily accessible location.

Full sized legible color plans are required to be provided by the permitee on site for inspection.

AT&T

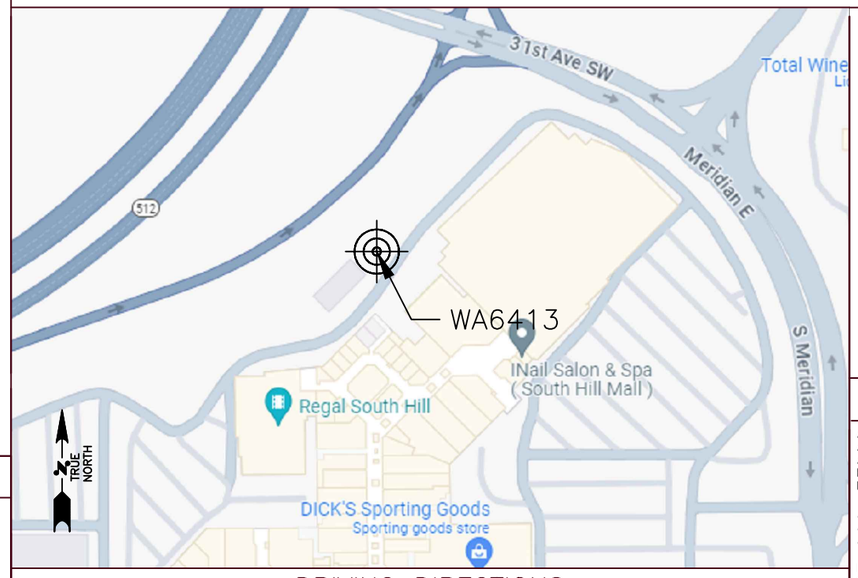
SITE NUMBER #: WA6413
SITE NAME: SOUTH HILL MALL
FA #: 10038029
SITE ADDRESS: 3310 SOUTH MERIDIAN PUYALLUP, WA 98373
COUNTY: PIERCE COUNTY
PACE #: MRWOR081847, MRWOR081946, MRWOR081861, MRWOR082022, MRWOR081933, MRWOR081860, MRWOR081973
PROJECT: LTE 1C RRH SWAP, 5G NR RRH SWAP, LTE RRH SWAP, 5G NR RRH SWAP, 5G NR 1SR CBAND, LTE RRH SWAP, LTE RRH SWAP

Separate Electrical Permit is required with the Washington State Department of Labor & Industries.
https://lni.wa.gov/licensing-permits/electrical/electrical-permits-fees-and-inspections
or call for Licensing Information: 1-800-647-0982

City of Puyallup Development & Permitting Services ISSUED PERMIT
Building | Planning | Engineering | Public Works | Fire | Traffic

City of Puyallup Building REVIEWED FOR COMPLIANCE
SKinnear
04/18/2025
9:54:36 AM

VICINITY MAP



DRIVING DIRECTIONS

FROM PIERCE COUNTY AIRPORT, 16709 103RD AVENUE CT E, PUYALLUP, WA 98374:

DEPART AND HEAD (NORTHWEST), TURN RIGHT, THEN IMMEDIATELY TURN RIGHT ONTO 103RD AVENUE CT E, TURN RIGHT ONTO WA-161/ MERIDIAN E, TURN LEFT ONTO S MERIDIAN, TURN RIGHT TOWARD S MERIDIAN, KEEP STRAIGHT TO GET ONTO S MERIDIAN, ARRIVE AT 3310 SOUTH MERIDIAN, PUYALLUP, WA 98373.

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, PORTABLE WATER, OR TRASH DISPOSAL IS REQUIRED, NO COMMERCIAL SIGNAGE AND NO LANDSCAPING IS PROPOSED.

DO NOT SCALE DRAWINGS
CONTRACTOR 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 BE RESPONSIBLE FOR SAME.

BUILDING CODES

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 THE LATEST EDITIONS OF THE FOLLOWING CODES.

- 2021 INTERNATIONAL BUILDING CODE
- 2021 INTERNATIONAL MECHANICAL CODE
- 2023 NATIONAL ELECTRICAL CODE

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

- FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
- ADA ACCESS REQUIREMENTS ARE NOT REQUIRED
- THIS FACILITY DOES NOT REQUIRE POTABLE WATER AND WILL NOT PRODUCE ANY SEWAG

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AT&T
60 WEST AVENUE
WAYNE, PA 19087

smartlink
10 CHURCH CIRCLE
ANNAPOLIS, MD 21401

Trylon
1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038
1-855-669-5421

SITE NUMBER: WA6413
SITE NAME: SOUTH HILL MALL
PRCTI20250451
3310 SOUTH MERIDIAN
PUYALLUP, WA 98373
PIERCE COUNTY

REV	DATE	DESCRIPTION	BY
1	01/15/25	ISSUED FOR PERMITTING USE ONLY	RC
A	08/29/24	ISSUED FOR PERMITTING USE ONLY	RC

MICHAEL S. MOORE
STATE OF WASHINGTON
23006887
1/20/2025
REGISTERED PROFESSIONAL ENGINEER

AT&T
TITLE SHEET
(2024 UPGRADE)

SITE NUMBER	SHEET NUMBER	REV
WA6413	T-1	1

GENERAL NOTES

GENERAL CONSTRUCTION

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
   - 1.1. CONTRACTOR – T.B.D
   - 1.2. SUB–CONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
   - 1.3. OWNER – AT&T MOBILITY
   - 1.4. OEM – ORIGINAL EQUIPMENT MANUFACTURER
2. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
3. GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
4. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
5. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
7. THE PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
8. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
10. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
11. GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
12. ERECTION SHALL BE DONE IN A WORKMAN–LIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
13. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. SUBCONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.
14. WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. SUBCONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
15. CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
16. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
17. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
18. GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND SUBCONTRACTORS TO THE SITE AND/OR BUILDING.
19. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
20. THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
21. THE GENERAL CONTRACTOR AND SUBCONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2A TO 2A:10B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
22. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO: A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.
23. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
24. THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.
25. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
26. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUNDING. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
27. THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE–APPROVED BY THE LOCAL JURISDICTION. ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
28. ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
29. CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS–BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
30. CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
31. THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITAT (NO HANDICAP ACCESS REQUIRED).
32. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
33. NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
34. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST REVISION OF AT&T GROUNDING STANDARD "GROUNDING AND BONDING REQUIREMENTS FOR NETWORK FACILITIES (ATT–TP–76416) AND "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF GSM/GPRS WIRELESS SITES" (ATT–TP–76300). IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATION AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
35. CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
36. CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
37. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
38. NO WHITE STROBIC LIGHTS ARE PERMITTED. LIGHTING IF REQUIRED, WILL MEET FAA STANDARDS AND REQUIREMENTS.
39. ALL COAXIAL CABLE INSTALLATIONS TO FOLLOW MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

ANTENNA MOUNTING

40. DESIGN AND CONSTRUCTION OF ANNTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/TIA–222 OR APPLICABLE LOCAL CODES.
41. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT–DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS NOTED OTHERWISE.
42. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC–COATING (HOT–DIP) ON IRON AND STEEL HARDWARE", UNLESS NOTED OTHERWISE.
43. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
44. ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK WASHERS AND/OR DOUBLE NUTS, AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.
45. CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.
46. ALL UNUSED PORTS ON ANY ANTENNAS SHALL BE TERMINATED WITH A 50–OHM LOAD TO ENSURE ANTENNAS PERFORM AS DESIGNED.
47. PRIOR TO SETTING ANTENNA AZIMUTHS AND DOWNTILTS, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA MOUNT FOR TIGHTNESS AND ENSURE THAT THEY ARE PLUMB. ANTENNA AZIMUTHS SHALL BE SET FROM TRUE NORTH AND BE ORIENTED WITHIN ±3° AS DEFINED BY THE RFDS. ANTENNA DOWNTILTS SHALL BE WITHIN ±0.5° AS DEFINED BY THE RFDS. REFER TO ND–00246.
48. JUMPERS FROM THE TOWER MOUNTED AMPLIFIERS MUST TERMINATE TO OPPOSITE POLARIZATIONS IN EACH SECTOR.
49. CONTRACTOR SHALL RECORD THE SERIAL NUMBER, SECTOR, AND POSITION OF EACH ACTUATOR INSTALLED AT THE ANTENNAS AND PROVIDE THE INFORMATION TO AT&T.
50. ANTENNAS SHALL HAVE A 3'–0" MINIMUM CENTER–TO–CENTER HORIZONTAL SEPARATION.

TORQUE REQUIREMENTS

51. ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH.
52. A TORQUE MARK FORMING A CONTINUOUS STRAIGHT LINE IS TO BE MADE IN THE FOLLOWING APPLICATIONS:
53. RF CONNECTIONS – MARK BOTH SIDES OF THE CONNECTOR GROUNDING AND ANTENNA HARDWARE – MARK ON THE NUT SIDE OF THE BOLT, STARTING FROM THE THREADS TO THE SOLID SURFACE. SOLID SURFACE EXAMPLES INCLUDE A GROUND BAR OR ANTENNA BRACKET METAL.
54. ALL 8M ANTENNA HARDWARE SHALL BE TIGHTENED TO 9 LB–FT (12 NM).
55. ALL 12M ANTENNA HARDWARE SHALL BE TIGHTENED TO 43 LB–FT (58 NM).
56. ALL GROUNDING HARDWARE SHALL BE TIGHTENED UNTIL THE LOCK WASHER COLLAPSES AND THE GROUNDING HARDWARE IS NO LONGER LOOSE.
57. ALL DIN TYPE CONNECTIONS SHALL BE TIGHTENED TO 18–22 LB–FT (24.4 – 29.8 NM).
58. ALL N TYPE CONNECTIONS SHALL BE TIGHTENED TO 15–20 LB–IN (1.7 – 2.3 NM).

FIBER & POWER CABLE MOUNTING

59. THE FIBER OPTIC TRUNK CABLES SHALL BE INSTALLED IN CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY. WHEN INSTALLING FIBER OPTIC TRUNK CABLES INTO A CABLE TRAY SYSTEM, THEY SHALL BE INSTALLED INTO AN INTER DUCT AND A PARTITION BARRIER SHALL BE INSTALLED BETWEEN THE 600 VOLT CABLES AND THE INTER DUCT IN ORDER TO SEGREGATE CABLE TYPES. OPTIC FIBER TRUNK CABLES SHALL HAVE APPROVED CABLE RESTRAINTS EVERY (60) SIXTY FEET AND SHALL BE SECURELY FASTENED TO THE CABLE TRAY SYSTEM. NFPA 70 (NEC) ATRICLE 770 RULES SHALL APPLY.
60. TYPE TC–ER CABLES SHALL BE INSTALLED INTO CONDUITS OR CABLE TRAYS, AND SHALL BE SECURED AT INTERVALS NOT EXCEEDING (6) FEET. WHERE TYPE TC–ER CABLES ARE NOT SUBJECT TO PHYSICAL DAMAGE, CABLES SHALL BE PERMITTED TO MAKE A TRANSITION BETWEEN CONDUITS OR CABLE TRAYS THAT ARE SERVICING UTILIZATION EQUIPMENT OR DEVICES. A TRANSITION DISTACE EXCEEDING (6) FEET REQUIRES CONTINUOUS SUPPORTING. NFPA 70 (NEC) ARTICLES 336 AND 392 RULES SHALL APPLY.
61. WHEN INSTALLING OPTIC FIBER TRUNK CABLES OR TYPE TC–ER CABLES INTO CONDUITS, NFPA 70 (NEC) ARTICLE 300 RULES SHALL APPLY.

COAXIAL CABLE NOTES

62. TYPES AND SIZES OF THE ANTENNA CABLES ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.
63. CONTRACTOR SHALL VERIFY THAT THE DOWNTILT OF EACH ANTENNA IS WITHIN +/– 0.5 DEGREES OF SPECIFICATION WITH AN OCI APPROVED DIGITAL LEVEL.
64. CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION. REFER TO "ANTENNA SYSTEM LABELING STANDARD" ND–00027 LATEST VERSION.
65. ALL JUMPERS TO THE ANTENNAS FROM THE MAIN TRANSMISSION LINE SHALL BE 1/2" DIA. LDF AND SHALL NOT EXCEED 6'–0".
66. ALL COAXIAL CABLE SHALL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE, IN AN APPROVED MANNER, NOT TO EXCEED 4'–0" OC.
67. COAXIAL CABLE SHALL BE SECURED TO THE DESIGNATED SUPPORT STRUCTURE(S) PER MANUFACTURER'S SPECIFICATIONS.
68. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.
69. CONTRACTOR SHALL WEATHERPROOF ALL ANTENNA CONNECTORS WITH SELF AMALGAMATING TAPE. WEATHERPROOFING SHALL BE COMPLETED IN STRICT ACCORDANCE WITH AT&T STANDARDS.

GENERAL CABLE AND EQUIPMENT NOTES

70. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, TMAS, DIPLEXERS, COAX CONFIGURATION, MAKES, AND MODELS PRIOR TO INSTALLATION.
71. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S RECOMMENDATIONS.
72. CONTRACTOR SHALL REFERENCE THE TOWER STRUCTURAL ANALYSIS/DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION/ROUTING.
73. AFTER INSTALLATION AND FINAL CONNECTIONS ARE MADE, ALL OUTDOOR RF CONNECTORS/CONNECTIONS SHALL BE WEATHERPROOFED, EXCEPT THE RET CONNECTORS, USING BUTYL TAPE OR OTHER APPROVED WEATHERPROOFING METHODS PER AT&T SPECIFICATIONS. BUTYL TAPE SHALL HAVE A MINIMUM OF ONE–HALF TAPE WIDTH OVERLAP ON EACH TURN AND EACH LAYER SHALL BE WRAPPED THREE TIMES. WEATHERPROOFING SHALL BE SMOOTH WITHOUT BUCKLING. BUTYL BLEEDING IS NOT ALLOWED. SELF BONDING TAPE AND PLASTIC ENCLOSURES ARE PERMITTED PER ATT–002–290–041, SECTION 7.
74. IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:
   - A. TEMPERATURE SHALL BE ABOVE 50 DEGREES FAHRENHEIT.
   - B. PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.
   - C. FOR REGULATED TOWERS, FAA/FCC APPROVED PAINT IS REQUIRED.
   - D. DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS.
75. ALL CABLES SHALL BE GROUNDED WITH COAXIAL CABLE GROUND KITS. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS:
   - A. GROUNDING AT THE ANTENNA LEVEL.
   - B. GROUNDING AT THE MID LEVEL, TOWERS WHICH ARE OVER 200'–0", ADDITIONAL CABLE GROUNDING REQUIRED.
   - C. GROUNDING AT BASE OF TOWER PRIOR TO TURNING HORIZONTAL.
   - D. GROUNDING OUTSIDE THE EQUIPMENT SHELTER AT ENTRY PORT.
   - E. GROUNDING INSIDE THE EQUIPMENT SHELTER AT THE ENTRY PORT.
76. ANTENNA CONTRACTOR SHALL FURNISH AND INSTALL A 10'–0" T–BOOM SECTOR ANTENNA MOUNT INCLUDING ALL HARDWARE, IF APPLICABLE.

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

AT&T
60 WEST AVENUE
WAYNE, PA 19087

smartlink
10 CHURCH CIRCLE
ANNAPOLIS, MD 21401

Trylon
1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038
1–855–669–5421

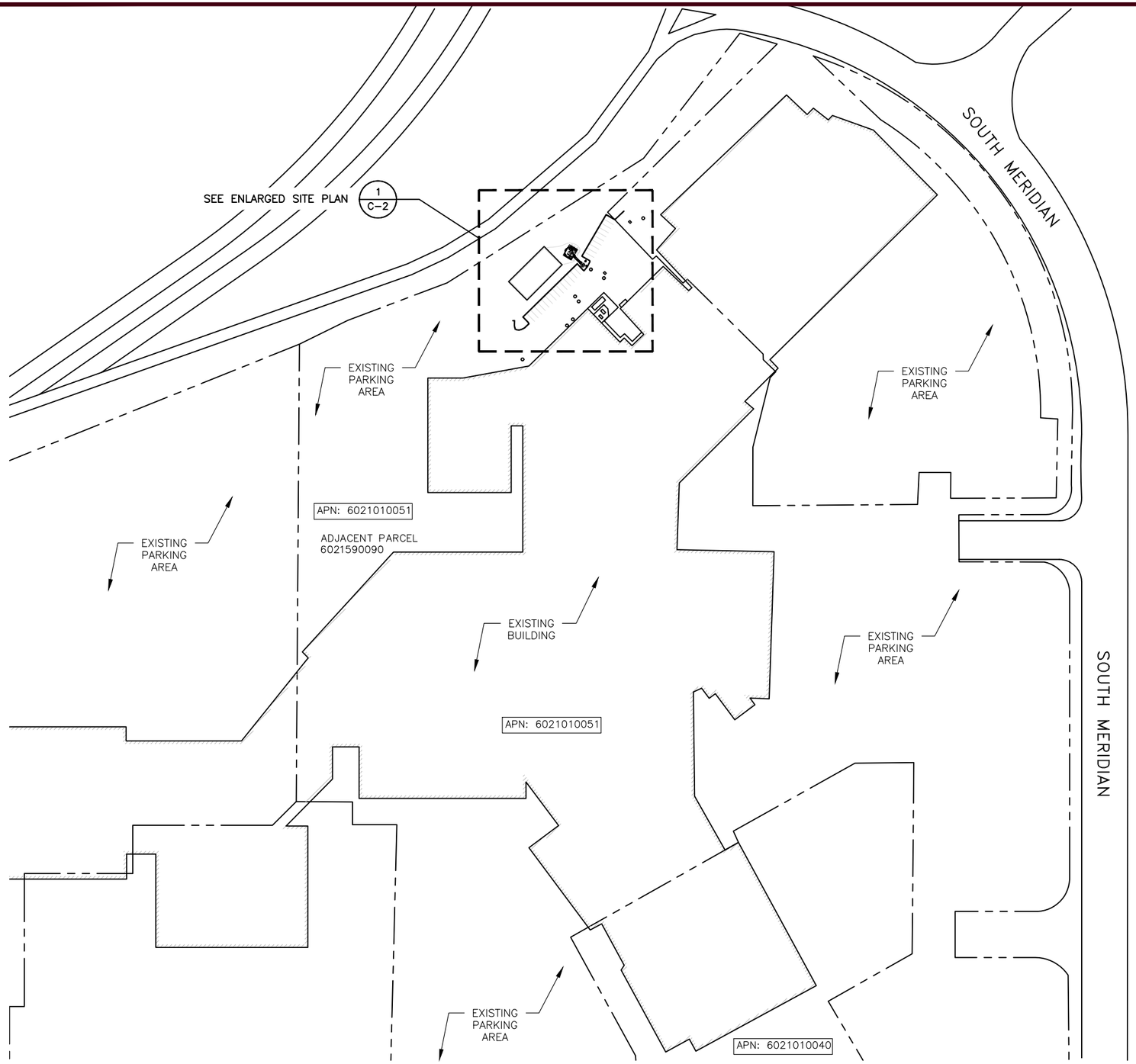
SITE NUMBER: WA6413
SITE NAME: SOUTH HILL MALL
PRCTI20250451
3310 SOUTH MERIDIAN
PUYALLUP, WA 98373
PIERCE COUNTY

REV	DATE	DESCRIPTION	BY
1	01/15/25	ISSUED FOR PERMITTING USE ONLY	RC
A	08/29/24	ISSUED FOR PERMITTING USE ONLY	RC

MICHAEL S. MOORE
STATE OF WASHINGTON
23006887
1/20/2025
REGISTERED
PROFESSIONAL ENGINEER

AT&T
GENERAL NOTES
(2024 UPGRADE)

SITE NUMBER	SHEET NUMBER	REV
WA6413	GN–1	1



LEGEND

TREE	
ACCESS ROAD	
EXISTING BUILDING	
CHAIN LINK FENCE	— x — x —
WOOD FENCE	—o—o—
TREE/BUSH LINE	
PROPERTY LINE	
LEASE AREA LINE	
UTILITY POLE	
OVERHEAD WIRE	— O/H —

AERIAL VIEW 2

GENERAL NOTES:

1. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITIES COMPANY OR OTHER PUBLIC AUTHORITIES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.
3. THE CONTRACTOR SHALL NOTIFY THE AT&T CONSTRUCTION MANAGER IN WRITING, OF ANY CONFLICT, ERRORS OR OMISSION PRIOR TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK. MINOR OMISSIONS OR ERRORS IN THE BID DOCUMENTS SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR THE OVERALL INTENT OF THESE DRAWINGS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED AS A RESULT OF CONSTRUCTION OF THIS FACILITY.
5. THE SCOPE OF THE WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
6. THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING A BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
7. CONTRACTOR SHALL MAKE A UTILITY "ONE CALL" TO LOCATE ALL UTILITIES AND NOTIFY UNDERGROUND FACILITIES PROTECTIVE ORGANIZATION AT (800) 424-5555 PRIOR TO EXCAVATION AT SITE.
8. ANY UNDERGROUND UTILITIES OR STRUCTURES THAT EXIST BENEATH THE PROJECT AREA, CONTRACTOR MUST LOCATE IT AND CONTACT THE APPLICANT & THE OWNER'S REPRESENTATIVE.
9. NO SIGNIFICANT NOISE, SMOKE, DUST, OR ODOR WILL RESULT FROM THIS FACILITY.
10. POWER TO THE FACILITY WILL BE MONITORED BY A SEPARATE METER.
11. THERE ARE NO COMMERCIAL SIGNS PROPOSED FOR THIS INSTALLATION.
12. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED IN ANY FILL OR EMBANKMENT.
13. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE DIRECTED BY UTILITY OWNER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES.
14. THE AREAS DISTURBED DUE TO CONSTRUCTION ACTIVITY SHALL BE GRADED AND RESTORED PER CODE/LANDLORD REQUIREMENTS.
15. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION, EROSION CONTROL MEASURES SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL, AND COORDINATED WITH THE MUNICIPALITY.
16. UTILITY WARNING TAPE SHALL BE PLACED ABOVE ALL NEW CONDUITS AT MAX 18" DEPTH BELOW GRADE.
17. PRIOR TO INSTALLATION OF ERICSSON EQUIPMENT, REMOVE RELATED NOKIA AT&T MACRO TOWER/BBU EQUIPMENT.

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

TRUE NORTH

OVERALL SITE PLAN

0 50' 100' 200'

SCALE: 1"=200'-0" (11x17)
(OR) 2"=200'-0" (22x34)

1

AT&T
60 WEST AVENUE
WAYNE, PA 19087

smartlink
10 CHURCH CIRCLE
ANNAPOLIS, MD 21401

Trylon
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23006887
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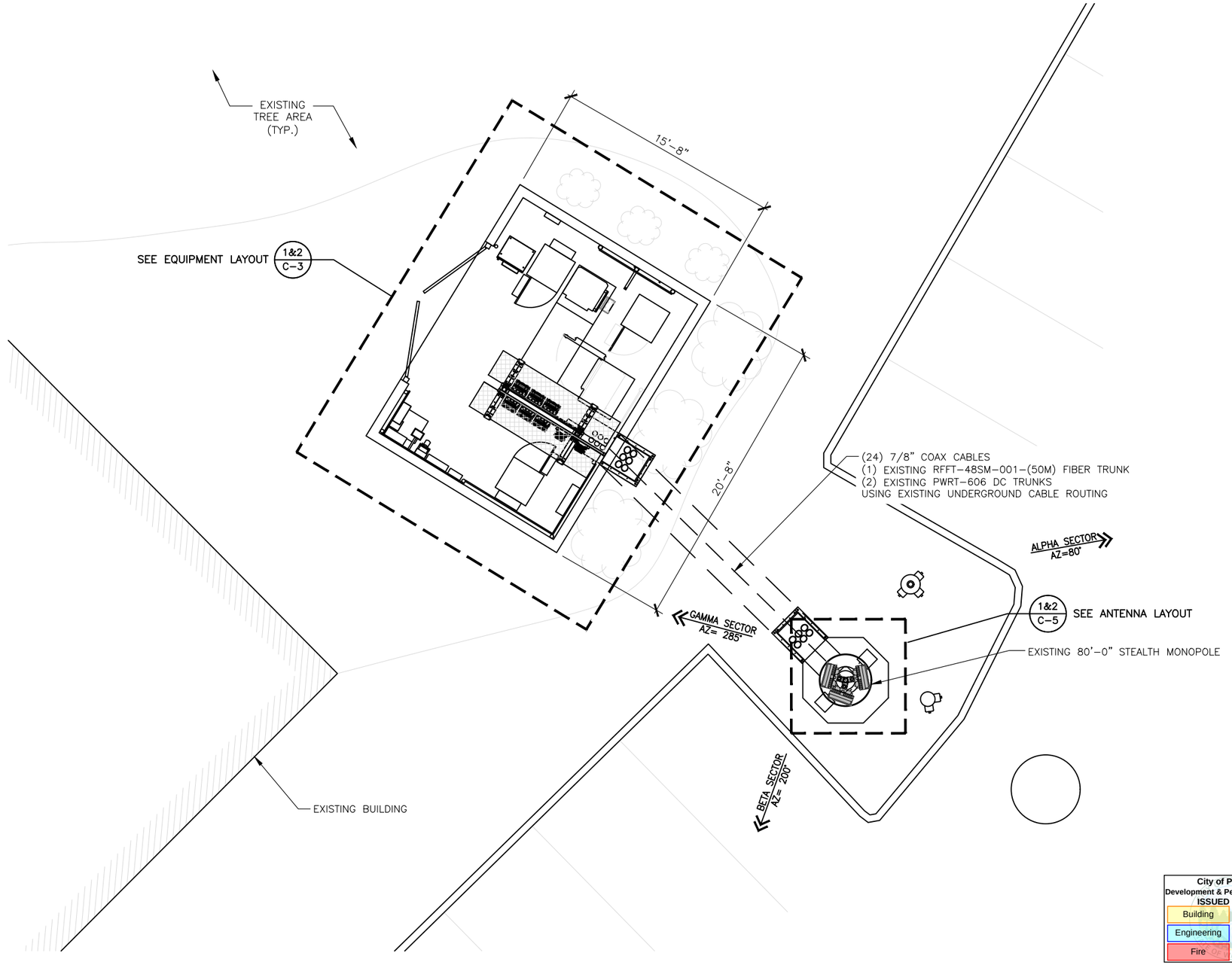
PROFESSIONAL ENGINEER

AT&T

OVERALL SITE PLAN
(2024 UPGRADE)

SITE NUMBER	SHEET NUMBER	REV
WA6413	C-1	1



LEGEND

TREE	
ACCESS ROAD	
EXISTING BUILDING	
CHAIN LINK FENCE	— x — x —
WOOD FENCE	—o—o—
TREE/BUSH LINE	
PROPERTY LINE	
LEASE AREA LINE	
UTILITY POLE	
OVERHEAD WIRE	— O/H —

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

TRUE NORTH

ENLARGED SITE PLAN

0 4' 8'

SCALE: 1/8"=1'-0" (11x17)
(OR) 1/4"=1'-0" (22x34)

1

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AT&T

ENLARGED SITE PLAN
(2024 UPGRADE)

SITE NUMBER	SHEET NUMBER	REV
WA6413	C-2	1

NOTES:

1. THESE DRAWINGS SHALL NOT BE RELIED UPON AS AN INDICATION THAT THE TOWER STRUCTURE, ITS COMPONENTS, AND ITS FOUNDATION HAVE ADEQUATE STRUCTURAL CAPACITY TO SUPPORT ALL EXISTING AND NEW ANTENNAS, MOUNTS, EQUIPMENT, AND COAXIAL CABLES. TRYLON HAS NOT PERFORMED A STRUCTURAL ANALYSIS ON THE TOWER, FOUNDATION, ANTENNA MOUNT, AND ALL ITS COMPONENTS. IT IS THE RESPONSIBILITY OF THE OWNER TO HAVE A STRUCTURAL ANALYSIS PERFORMED IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS PRIOR TO THE INSTALLATION OF ANY NEW EQUIPMENT, COAXIAL CABLES, ANTENNAS, OR APPURTENANCES ON THE TOWER. THIS STRUCTURAL ANALYSIS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN PA.
2. INSTALLATION SHALL BE CONDUCTED BY FIELD CREWS EXPERIENCED IN THE ASSEMBLY AND ERECTION OF RADIO ANTENNAS, TRANSMISSION LINES, AND SUPPORT STRUCTURES. ANTENNA WORK TO BE INSTALLED PER THE REQUIREMENTS OF THE TOWER MANUFACTURER'S SPECIFICATION.
3. ANTENNA AND MOUNT DESIGN MUST COMPLY WITH ANSI/TIA-222-G AND ALL LOCAL CODES.
4. CONTRACTOR TO PROVIDE THE PROPER COAX JUMPER SUPPORT ATTACHMENTS TO THE TOWER AND ANTENNA MOUNT.
5. CONTRACTOR TO GET THE LATEST AT&T RFDS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
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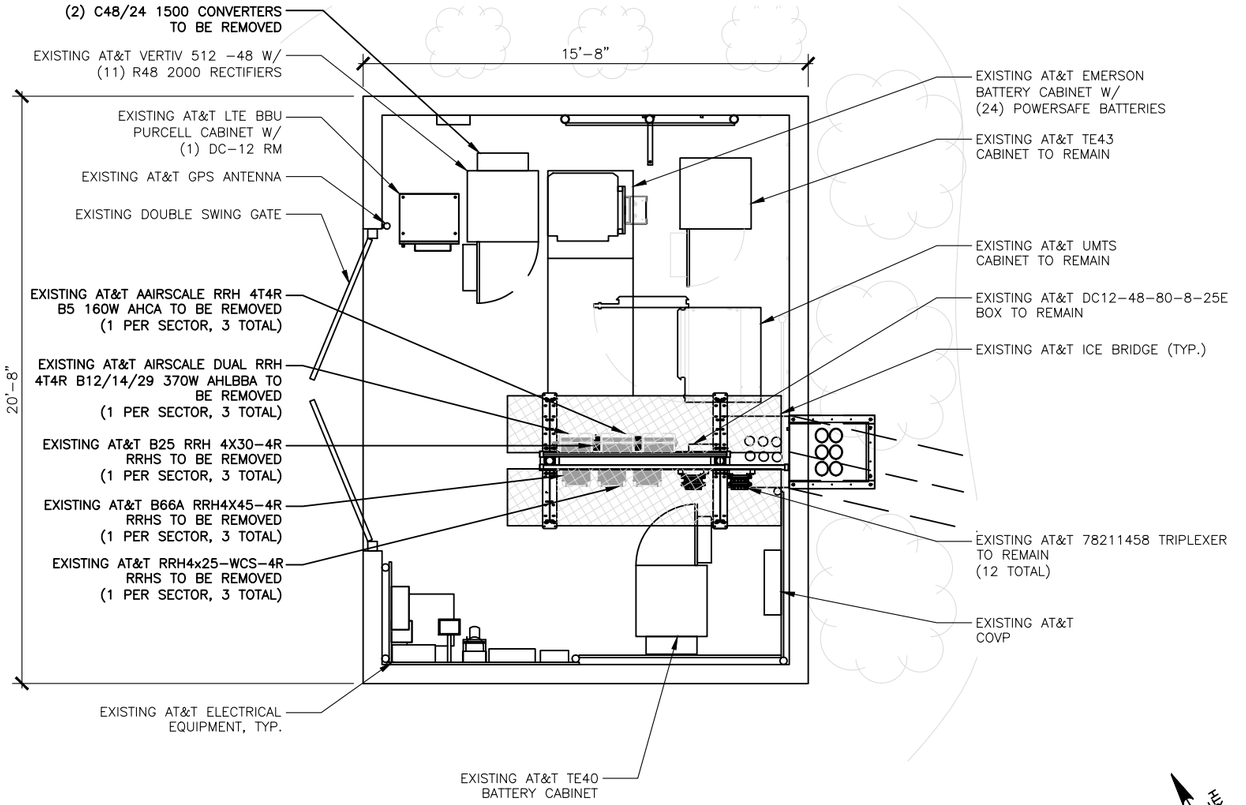
8. PRIOR TO INSTALLATION OF ERICSSON EQUIPMENT, REMOVE RELATED NOKIA AT&T MACRO TOWER/BBU EQUIPMENT.

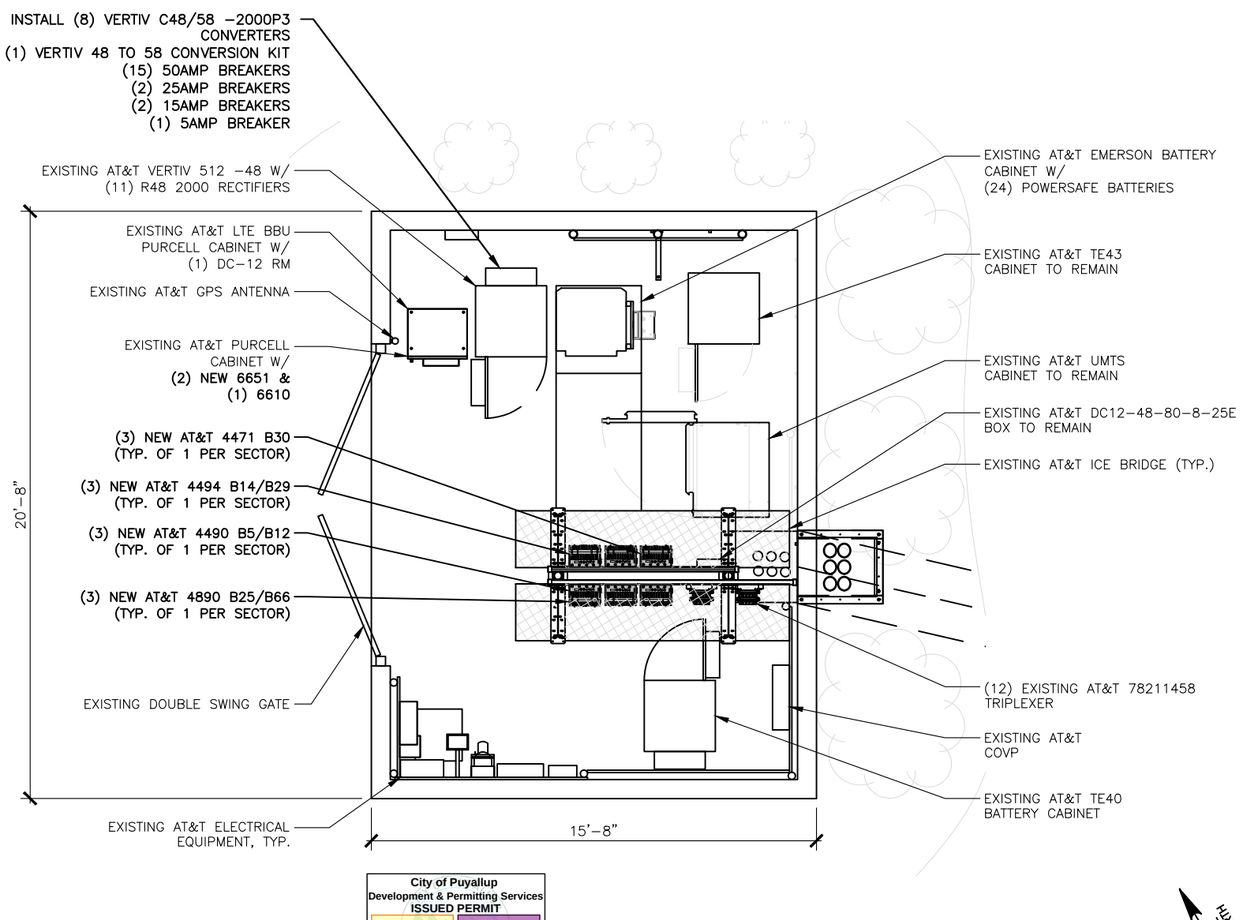


EXISTING EQUIPMENT LAYOUT

0 3' 6'

SCALE: 3/16"=1'-0" (11x17)
(OR) 3/8"=1'-0" (22x34)

1



City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

PROPOSED EQUIPMENT LAYOUT

0 3' 6'

SCALE: 3/16"=1'-0" (11x17)
(OR) 3/8"=1'-0" (22x34)

2

AT&T
60 WEST AVENUE
WAYNE, PA 19087

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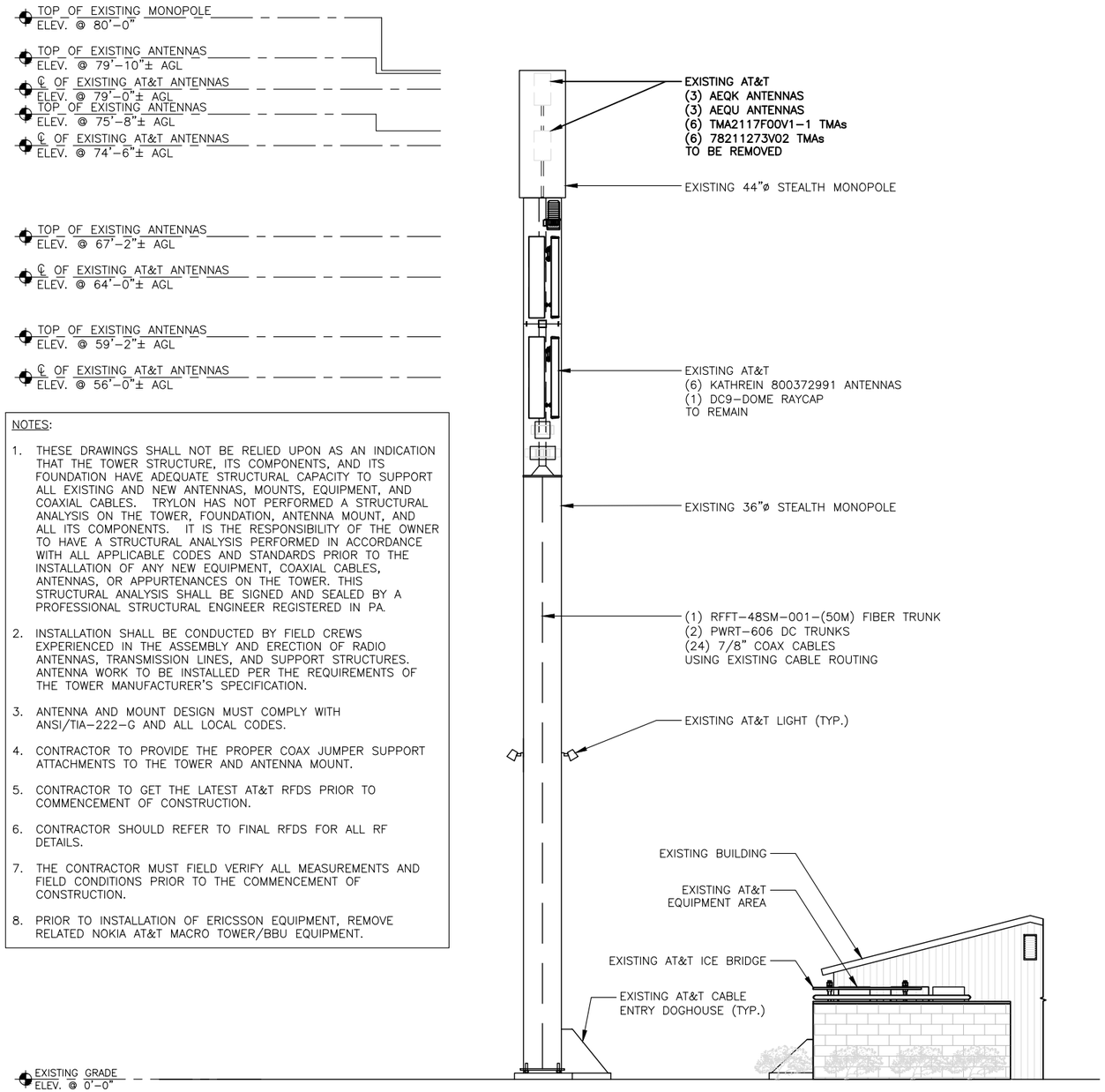
PROFESSIONAL ENGINEER

AT&T

EXISTING & PROPOSED EQUIPMENT LAYOUT
(2024 UPGRADE)

SITE NUMBER	SHEET NUMBER	REV
WA6413	C-3	1



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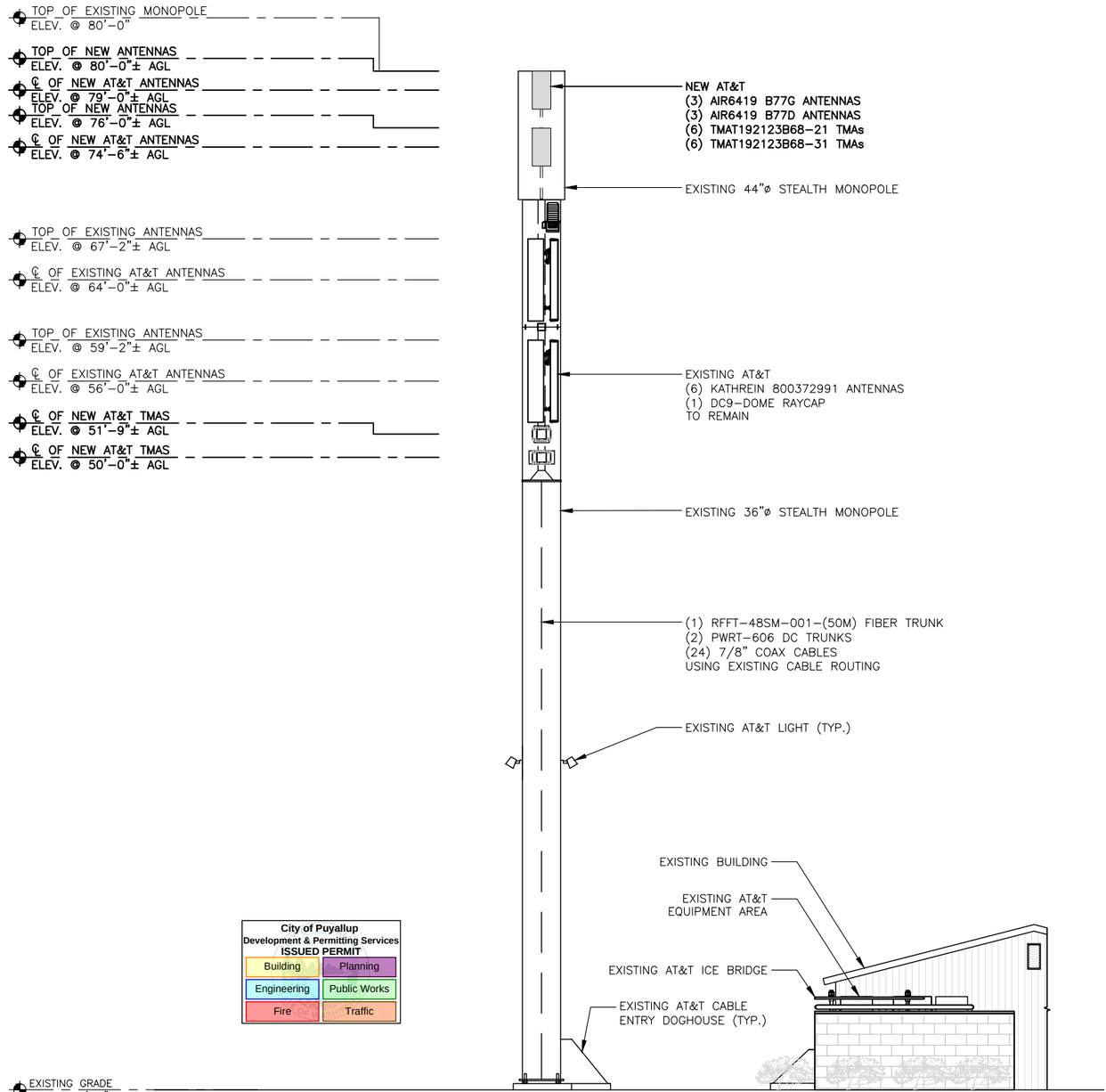
EXISTING NORTHEAST ELEVATION

0 3' 6' 12'

SCALE: 3/32"=1'-0" (11x17)
(OR) 3/16"=1'-0" (22x34)

1

DOD AIR6419 B77G TOP POSITION
C-BAND AIR6419 B77D BOTTOM POSITION
12" SEPARATION BETWEEN THE TWO ANTENNAS



City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

REUSE EXISTING SITE TOWER GROUNDING

PROPOSED NORTHEAST ELEVATION

0 3' 6' 12'

SCALE: 3/32"=1'-0" (11x17)
(OR) 3/16"=1'-0" (22x34)

2

AT&T
60 WEST AVENUE
WAYNE, PA 19087

smartlink
10 CHURCH CIRCLE
ANNAPOLIS, MD 21401

Trylon
1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038
1-855-669-5421

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SITE NAME: SOUTH HILL MALL
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PUYALLUP, WA 98373
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MICHAEL S. MOORE
STATE OF WASHINGTON
23006887
1/20/2025
REGISTERED
PROFESSIONAL ENGINEER

AT&T

EXISTING & PROPOSED NORTHEAST ELEVATION (2024 UPGRADE)

SITE NUMBER	SHEET NUMBER	REV
WA6413	C-4	1

NOTES:

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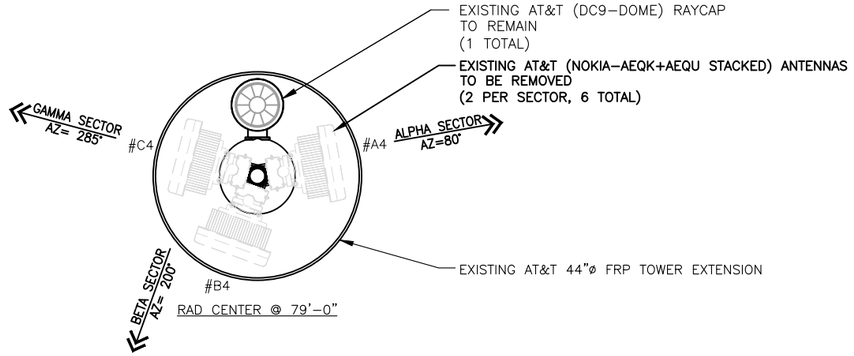
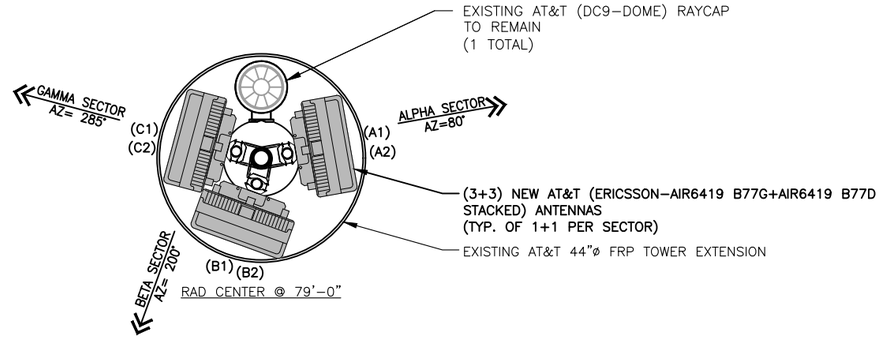


EXISTING ANTENNA LAYOUT

SCALE: 3/8"=1'-0" (11x17)
(OR) 3/4"=1'-0" (22x34)

1

DOD AIR6419 B77G TOP POSITION
C-BAND AIR6419 B77D BOTTOM POSITION
12" SEPARATION BETWEEN THE TWO ANTENNAS



City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

REUSE EXISTING SITE TOWER GROUNDING

PROPOSED ANTENNA LAYOUT

SCALE: 3/8"=1'-0" (11x17)
(OR) 3/4"=1'-0" (22x34)

2

AT&T
60 WEST AVENUE
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23006887
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AT&T

EXISTING & PROPOSED ANTENNA LAYOUTS
(2024 UPGRADE)

SITE NUMBER	SHEET NUMBER	REV
WA6413	C-5	1

EXISTING ANTENNA SCHEDULE AND RF SYSTEM

SECTOR	ANTENNA POSITION	ANTENNA MAKE/MODEL	AZIMUTH	RAD CENTER	TIP HEIGHT	RRH MAKE/MODEL	SQUIDS	FEEDLINE	FEEDLINE LENGTH
ALPHA	#4	AEQK+AEQU	80°	79'-0" 74'-6"	80'-3" 75'-8"	INTEGRATED	(1) DC9-48-60-24-8C-EV	(1) RFFT-48SM-001-50M FIBER TRUNK (1) PWRT-606 DC TRUNK (8) 7/8" COAX CABLES	170'-0"
	#5	KATHREIN 800372991	80°	64'-0"	67'-3"	AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA (GROUND) B25 RRH 4X30-4R (GROUND), (2) 78211458 DIPLEXER (GROUND) B66A RRH4X45-4R (GROUND), (2) 78211273V02 TMA			
	#6	KATHREIN 800372991	80°	56'-0"	59'-3"	AIRSCALE RRH 4T4R B5 160W AHCA (GROUND) RRH4x25-WCS-4R (GROUND), (2) 78211458 DIPLEXER (GROUND) (2) TMA2117F00V1-1 TMA			
BETA	#4	AEQK+AEQU	200°	79'-0" 74'-6"	80'-3" 75'-8"	INTEGRATED	–	(1) PWRT-606 DC TRUNK (8) 7/8" COAX CABLES	170'-0"
	#5	KATHREIN 800372991	200°	64'-0"	67'-3"	AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA (GROUND) B25 RRH 4X30-4R (GROUND), (2) 78211458 DIPLEXER (GROUND) B66A RRH4X45-4R (GROUND), (2) 78211273V02 TMA			
	#6	KATHREIN 800372991	200°	56'-0"	59'-3"	AIRSCALE RRH 4T4R B5 160W AHCA (GROUND) RRH4x25-WCS-4R (GROUND), (2) 78211458 DIPLEXER (GROUND) (2) TMA2117F00V1-1 TMA			
GAMMA	#4	AEQK+AEQU	285°	79'-0" 74'-6"	80'-3" 75'-8"	INTEGRATED	–	(8) 7/8" COAX CABLES	170'-0"
	#5	KATHREIN 800372991	285°	64'-0"	67'-3"	AIRSCALE TRI RRH 4T4R B12/14/29 370W AHLBBA (GROUND) B25 RRH 4X30-4R (GROUND), (2) 78211458 DIPLEXER (GROUND) B66A RRH4X45-4R (GROUND), (2) 78211273V02 TMA			
	#6	KATHREIN 800372991	285°	56'-0"	59'-3"	AIRSCALE RRH 4T4R B5 160W AHCA (GROUND) RRH4x25-WCS-4R (GROUND), (2) 78211458 DIPLEXER (GROUND) (2) TMA2117F00V1-1 TMA			

PROPOSED ANTENNA SCHEDULE AND RF SYSTEM

SECTOR	ANTENNA POSITION	ANTENNA MAKE/MODEL	AZIMUTH	RAD CENTER	TIP HEIGHT	RRH MAKE/MODEL	SQUIDS	FEEDLINE	FEEDLINE LENGTH
ALPHA	#1 #2	ERICSSON AIR6419 B77G+AIR6419 B77D STACKED	80°	79'-0" 74'-6"	80'-0" 76'-0"	AIR 6419 B77G AIR 6419 B77D	(1) DC9-48-60-24-8C-EV	(1) RFFT-48SM-001-50M FIBER TRUNK (1) PWRT-606 DC TRUNK (8) 7/8" COAX CABLES	170'-0"
	#3	KATHREIN 800372991	80°	64'-0"	67'-3"	(N) ERICSSON 4490 B5/B12A (GROUND), (2) TMAT192123B68-21 TMA (N) ERICSSON 4890 B25/B66 (GROUND), (2) 78211458 TRIPLEXERS (GROUND)			
	#4	KATHREIN 800372991	80°	56'-0"	59'-3"	(N) ERICSSON 4471 B30 (GROUND), (2) TMAT192123B68-31 TMA (N) ERICSSON 4494 B14/B29 (GROUND), (2) 78211458 TRIPLEXERS (GROUND)			
BETA	#1 #2	ERICSSON AIR6419 B77G+AIR6419 B77D STACKED	200°	79'-0" 74'-6"	80'-0" 76'-0"	AIR 6419 B77G AIR 6419 B77D	–	(1) PWRT-606 DC TRUNK (8) 7/8" COAX CABLES	170'-0"
	#3	KATHREIN 800372991	200°	64'-0"	67'-3"	(N) ERICSSON 4490 B5/B12A (GROUND), (2) TMAT192123B68-21 TMA (N) ERICSSON 4890 B25/B66 (GROUND), (2) 78211458 TRIPLEXERS (GROUND)			
	#4	KATHREIN 800372991	200°	56'-0"	59'-3"	(N) ERICSSON 4471 B30 (GROUND), (2) TMAT192123B68-31 TMA (N) ERICSSON 4494 B14/B29 (GROUND), (2) 78211458 TRIPLEXERS (GROUND)			
GAMMA	#1 #2	ERICSSON AIR6419 B77G+AIR6419 B77D STACKED	285°	79'-0" 74'-6"	80'-0" 76'-0"	AIR 6419 B77G AIR 6419 B77D	–	(8) 7/8" COAX CABLES	170'-0"
	#3	KATHREIN 800372991	285°	64'-0"	67'-3"	(N) ERICSSON 4490 B5/B12A (GROUND), (2) TMAT192123B68-21 TMA (N) ERICSSON 4890 B25/B66 (GROUND), (2) 78211458 TRIPLEXERS (GROUND)			
	#4	KATHREIN 800372991	285°	56'-0"	59'-3"	(N) ERICSSON 4471 B30 (GROUND), (2) TMAT192123B68-31 TMA (N) ERICSSON 4494 B14/B29 (GROUND), (2) 78211458 TRIPLEXERS (GROUND)			

City of Puyallup
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EQUIPMENT	DC BREAKER
AIR6419 B77D	50A
AIR6419 B77G	50A
4890 B25/B66A	50A
4490 B5/B12	50A
4478 B14	25A
4494 B14/B29	50A
4415 B30	25A
6651	15A
6610	15A
SIAD S9500	5A

PROPOSED ANTENNA SCHEDULE

N.T.S. | 1

AT&T
60 WEST AVENUE
WAYNE, PA 19087

smartlink
10 CHURCH CIRCLE
ANNAPOLIS, MD 21401

Trylon
1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038
1-855-669-5421

SITE NUMBER: WA6413
SITE NAME: SOUTH HILL MALL
PRCTI20250451
3310 SOUTH MERIDIAN
PUYALLUP, WA 98373
PIERCE COUNTY

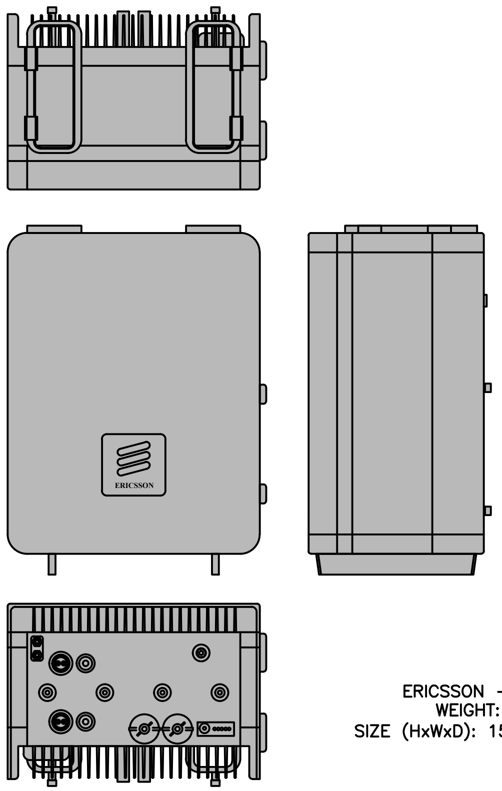
REV	DATE	DESCRIPTION	BY
1	01/15/25	ISSUED FOR PERMITTING USE ONLY	RC
A	08/29/24	ISSUED FOR PERMITTING USE ONLY	RC

MICHAEL S. MOORE
STATE OF WASHINGTON
23006887
1/20/2025
REGISTERED
PROFESSIONAL ENGINEER

AT&T

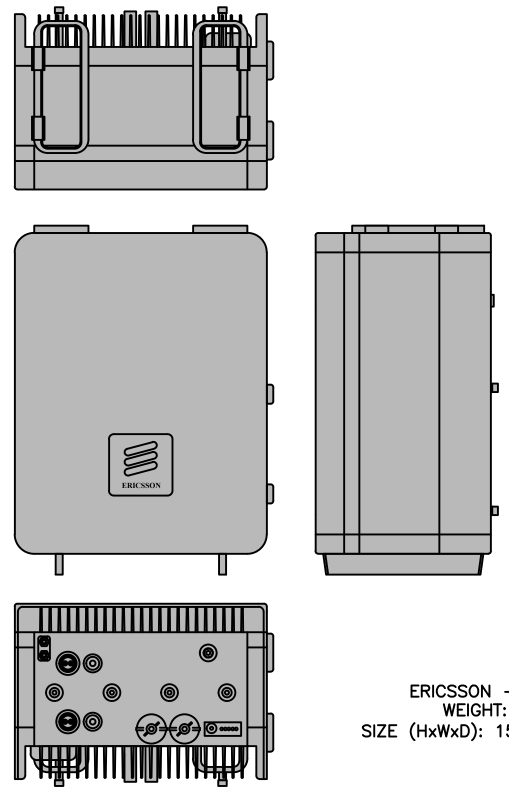
EXISTING & PROPOSED ANTENNA SCHEDULES
(2024 UPGRADE)

SITE NUMBER	SHEET NUMBER	REV
WA6413	C-6	1



ERICSSON – RADIO 4490
WEIGHT: 20.8 LBS
SIZE (HxWxD): 15.12x17.48x6.77 IN.

4490 B5/B12 RRH DETAIL	NOT TO SCALE	1



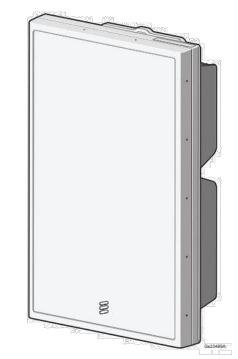
ERICSSON – RADIO 4890
WEIGHT: 20.8 LBS
SIZE (HxWxD): 15.12x17.48x6.93 IN.

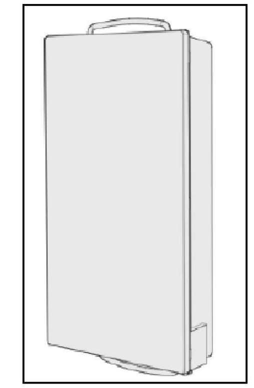
4890 B25/B66 RRH DETAIL	NOT TO SCALE	2

ERICSSON AIR 6419 B77G

- ERICSSON AIR 6419 has a total of 2 ECPRI connections @ 25.8 Gbps, 1 DC Power cable connection
- Operates over B77G DOD band (3.4-3.6 GHz)
- Breaker size = 45A DC, DC Power Consumption = 1280W (for dimensioning)
- Dimensions
  - Height: 31.1" (790 mm)
  - Width: 16.1" (408 mm)
  - Depth: 7.3" (186 mm)
- Weight, excl. mounting hardware = 44 lbs (20 kg)
- Weight with Mounting Hardware = 55.4 lbs (25.2 kg)
- Max Frontal Wind Load @ 42m/s = 454 N
- Horizontal Separation Required between AIR 6419 = 100mm
- Minimum Vertical Space Required below/above AIR 6419 = 300mm
- Minimum Height Above Users = 5m
- Outdoor Installation locations to avoid:
  - Hot microclimates caused by, for example, heat radiated or reflected from dark or metallic walls or floors
  - Chimney mouths or ventilation system outlets
  - In front of Large glass surfaces or concrete surfaces
- Avoid radio interference by keeping the area directly in front of the antenna clear of metal surfaces such as railing, ladders or chains or equipment generating electromagnetic fields, for example, electric motors in air conditioners or diesel generators in front of antenna
- Do not use metallic paint to cover the AIR 6419 If painting is required. Do not paint underside of AIR 6419.

RRUS 32 Datasheet for Turf Vendors | Commercial in confidence | Rev A | 2016-01-21 | Page 2





Ericsson AIR 6419 B77D is a TDD-based 64T64R TRP.

- 3.7 - 3.98 GHz operational bandwidth
- 64T64R, max 16 layers (DL), 8 layers (UL), 192 antenna elements (AEs)*, 32 sub-arrays
- Vertical and horizontal beamforming
- 320W total output power, 79 dBm EIRP ** (angular average, dual polarization)
- OBW/IBW: 200 MHz
- NR only
- 3 x 10/25 Gbps eCPRI ports
- 28.2" x 16.1" x 7.2"
- 63 lbs. (w/o mounting kit)
- Max power consumption/heat dissipation: 1135W (for dimensioning)
- Convectional cooling

AIR 6419 B77G B77D DETAIL	NOT TO SCALE	3

Radio 4494 44B14 20B29

PRA target, June 2024

- Dual band 4T4R/2T
- PA power
  - B14: 4x40W
  - B29: 2x40W
- B14: L5, L10, N5, N10, ESS10, NB-IoT (IB, GB & SA)
- B29: L3, L5, L10
- CPRI 2x2.5/4.9/9.8/10.1/24.3 Gbps
- eCPRI 2x10.3/25.8 Gbps
- Front area: 384mm x 444mm
- Depth and weight 143mm (24 liter) & 26kg
- -48 VDC 3-wire or 2-wire (single DC-connector)
- AISG TMA & RET support via RS485 or RF connectors
- 2 external alarm
- Optional fan for increased site flexibility
- IP65, -40 to +55C
- Power consumption: 15% reduction compared to 4478B14 + 2012B29 for the same configuration

Preliminary

4494 B14/B29 RRH DETAIL	NOT TO SCALE	4

Radio 4471 B30

Preliminary AT&T GA: Aug 24

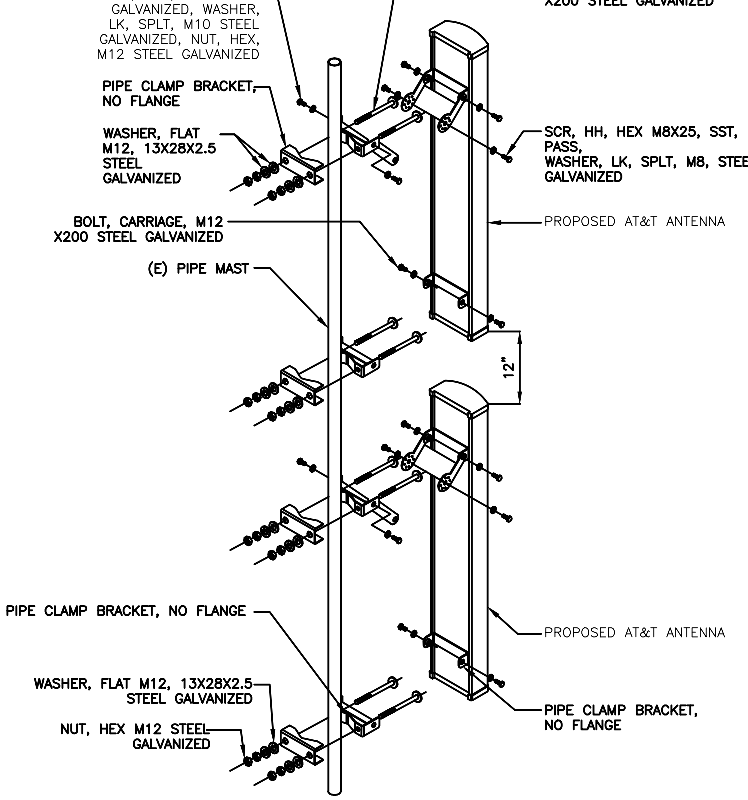
- 4T4R single-band FDD
- Output power: 4x25W
- RAT support: L, NR
- CPRI 2x2.5/4.9/9.8/10.1/24.3 Gbps
  eCPRI 2x10.3/25.8 Gbps
- Size (max) 13 liter / 13 kg
  -Target (HxWxD) 361x261x129
- -48 VDC 3-wire or 2-wire (single DC-connector)
- AISG TMA & RET support via RS-485 or RF connectors
- 2 external alarm
- Support for 12dB TMA
- Convectional cooling
- IP 65, -40 to +55°C
- FCC and NEBS compliant
- Power consumption: Estimate >15% reduction compared 4415 B30 in typical traffic load
  (typical traffic load is defined in PowerCalc with average 21% output power)

| 2024-01-26 | Commercial in Confidence | Page 27

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

4471 B30 RRH DETAIL	NOT TO SCALE	5



ANTENNA MOUNTING DETAIL	NOT TO SCALE	6

AT&T
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WAYNE, PA 19087

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10 CHURCH CIRCLE
ANNAPOLIS, MD 21401

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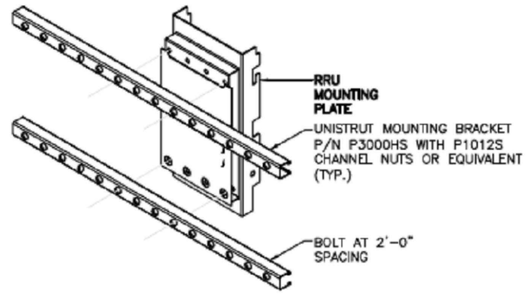
MICHAEL S. MOORE
STATE OF WASHINGTON
23006887
1/20/2025
REGISTERED PROFESSIONAL ENGINEER

AT&T
CONSTRUCTION DETAILS
(2024 UPGRADE)

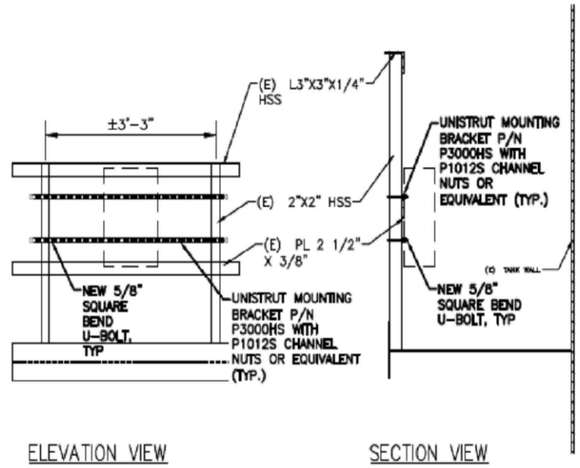
SITE NUMBER	SHEET NUMBER	REV
WA6413	A-1	1

NOT USED

NOT TO SCALE | 1



NOTE:
USE NEW 5/8" SQUARE BEND U-BOLT TO MOUNT NEW UNISTRUT TO EXISTING SQUARE VERTICAL HANDRAIL MEMBERS, TYP.



ELEVATION VIEW SECTION VIEW

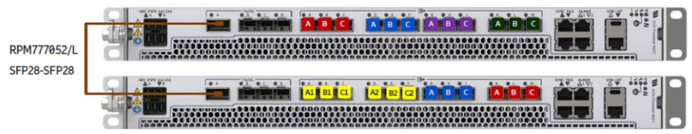
RRH & UNISTRUT MOUNTING DETAIL

NOT TO SCALE | 2

Tower Bottom Configuration: All Markets

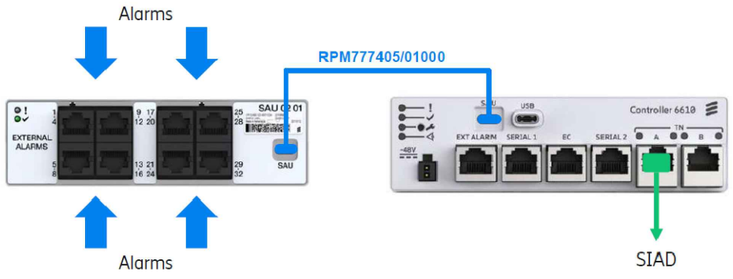
2024

- **Configuration A1.3:** 1 5G BB + 1 LTE BB (1st G3: TDD AAS + NR FDD + 2nd G3: FDD NR/LTE)
  - 2xRANP6651+ CNTR6610 + SAU



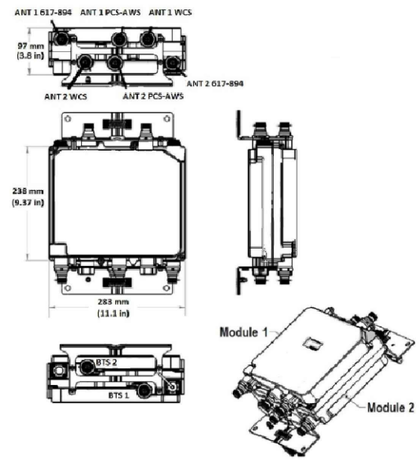
- Radio 4490/4449 – B5 (850) and B12 (700) OR Radio 4478 B12 (700) OR Radio 4478 B5 (850). Connect Data_1 to 1st G3 NR Cells and Data_2 to 2nd G3 LTE Cells.
- Radio 4494 – B14 (FNET) and B29 (700DE) OR Radio 4478 – B14 (FNET)
- AIR 6472 – B77D (C-Band) and B77G (3.45) (2 x eCPRI –> BW = 120MHz) OR AIR6449/AIR6449 B77D (C-Band – A1/B1/C1) + AIR6449 B77G (3.45 – A2/B2/C2)
- Radio 4890/8843 – B25 (PCS) and B66 (AWS). Connect Data_1 to 1st G3 NR Cells and Data_2 to 2nd G3 LTE Cells.
- Radio 4471 – B30 (WCS) OR Radio 4415 – B30 (WCS)

External Alarm



ERICSSON 6651 & 6610 BBU DETAIL

NOT TO SCALE | 3

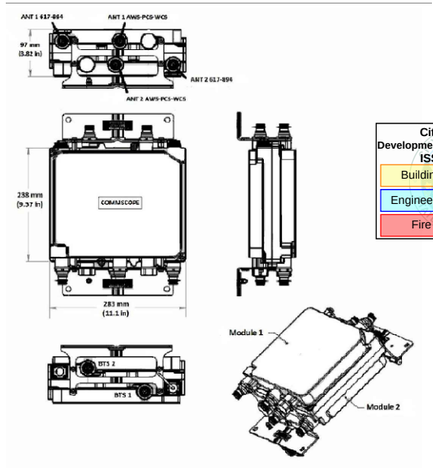


Dimensions

Height	238 mm | 9.37 in
Width	283 mm | 11.142 in
Depth	97 mm | 3.819 in
Ground Screw Diameter	6 mm | 0.236 in
Mounting Pipe Diameter Range	40–160 mm

TMAT192123B68-31 TMA DETAIL

NOT TO SCALE | 4



City of Puyallup
Development & Permitting Services
ISSUED PERMIT
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Engineering | Public Works
Fire | Traffic

Dimensions

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Width	238 mm | 9.37 in
Depth	97 mm | 3.819 in
Ground Screw Diameter	6 mm | 0.236 in
Mounting Pipe Diameter Range	40–160 mm

[illegible]-21 TMA DETAIL

NOT TO SCALE | 5

AT&T
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WAYNE, PA 19087

smartlink
10 CHURCH CIRCLE
ANNAPOLIS, MD 21401

Trylon
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1-855-669-5421

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MICHAEL S. MOORE
STATE OF WASHINGTON
23006887
1/20/2025
REGISTERED PROFESSIONAL ENGINEER

AT&T
CONSTRUCTION DETAILS
(2024 UPGRADE)

SITE NUMBER	SHEET NUMBER	REV
WA6413	A-2	1

Vertiv™ eSure™ Converter

C48/58 -2000P3

Key Benefits

Converter, 48 to 58 VDC, 2000 W Peak / 1600 W Average

- Reduce power consumption and lower operating costs with 95% peak efficiency.
- Easily add capacity with hot pluggable interchangeable components.
- Ensure high availability with wide input voltage range from 41 VDC to 58 VDC.
- Power your 5G sites in the harsh environments with operation from -40°C to +65°C.
- Enjoy peace of mind with high quality UL recognized design.

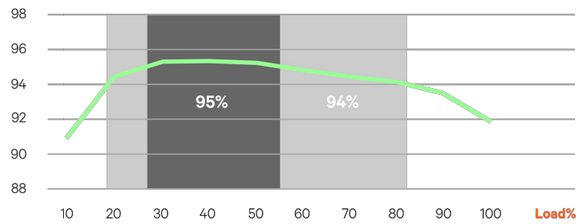
Easily support higher power 5G remote radios on cell towers with modular 2000 watt eSure™ power extend converters.

Description

The Vertiv™ eSure™ C48/58-2000P3 high-efficiency converter is designed to operate from a nominal -48 VDC source to provide nominal -58 VDC load power, which is adjustable to application needs needs up to 2000 watts peak, 1600 watts average. This constant power converter designed with the latest patented switchmode technology, uses digital signal processing (DSP) for efficient operation.

The eSure C48/58-2000P3 DC to DC converter is ideal for feeding high power remote radio heads (RRHs). 58 VDC is regulated over a wide input range to minimize voltage drop in the cable feeding the RRH and sustain operation to end of battery discharge. When redundancy is critical or loads are high, multiple eSure C48/58-2000P3 converters can be connected in parallel to support a variety of telecom applications. Unified remote management and control of the power system is enabled when combined with a Vertiv™ NetSure™ controller.

% Efficiency



C48/58-2000P3 Efficiency Curve at 53.5 VDC Nominal Input

Vertiv™ eSure™ Converter

Technical Specifications

DC Input	C48/58-2000P3
Voltage	41 VDC to 58.5 VDC, 48 VDC (nominal)
Maximum Current	53 A

DC Output	
Voltage	56 VDC to 58 VDC
Maximum Power	2000 W peak, 1600 W average at 40°C, 1280 W average at 65°C
Maximum Current	35.7 A at 2000 W peak *(see figure 1)*, 28.6 A at 1600 W average, 22.9 A at 1280 W average, all at 56 VDC
Peak Efficiency	>95%
Noise	< 250mV pk-pk; < 20mV rms; <38 dBrnC

Control and Monitoring	
Alarms and Signaling	Alarm and status reported via CAN bus to system controller
Visual Indications	Green LED: Normal Operation Yellow LED: Alarm Red LED: Failure Flashing Red LED: Fan Failure

Environmental	
Operating Temperature	-40°C to +80°C / -40°F to +176°F *(see figure 2)*
Storage Temperature	-40°C to +85°C / -40°F to +185°F
Relative Humidity	0 to 90%
Altitude	2000 m / 6560 ft at full power

Standards Compliance	
Safety	UL62368-1, EN62368-1, IEC62368-1
EMC	FCC CFR 47 Part 15 Class A conducted and Class B radiated
Environment	REACH, RoHS

Mechanics	
Dimensions (H x W x D)	41 x 84.5 x 252.5 mm / 1.61 x 3.33 x 9.94 inches
Weight	1.13 kg / 2.49 lbs

Ordering Information

Part Number	Description
1C48582000P3	eSure™ converter, -48 to -58 VDC, 2000 W peak / 1600 W average

Figures

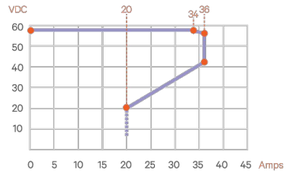


Figure 1: *Output Voltage vs. Output Current at Maximum peak Power 2000 W*

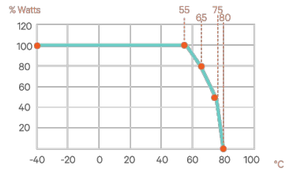


Figure 2: *Output Power vs. Temperature at -41VDC≥Vin ≥ -58VDC*

Vertiv.com | **Vertiv Headquarters,** 1050 Dearborn Drive, Columbus, OH, 43085, USA

C48/58-2000P3 (R06/2022)

City of Puyallup
Development & Permitting Services
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Building | Planning
Engineering | Public Works
Fire | Traffic

POWER EXTEND CONVERTER DETAIL

NOT TO SCALE | 1

AT&T
60 WEST AVENUE
WAYNE, PA 19087

smartlink
10 CHURCH CIRCLE
ANNAPOLIS, MD 21401

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STATE OF WASHINGTON
23006887
1/20/2025
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PROFESSIONAL ENGINEER

AT&T

POWER EXTEND CONVERTER DETAILS
(2024 UPGRADE)

SITE NUMBER	SHEET NUMBER	REV
WA6413	A-3	1

PENDING

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic

SITE DATA INPUT

N.T.S. 1

AT&T
60 WEST AVENUE
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smartlink
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STATE OF WASHINGTON
23006887
1/20/2025
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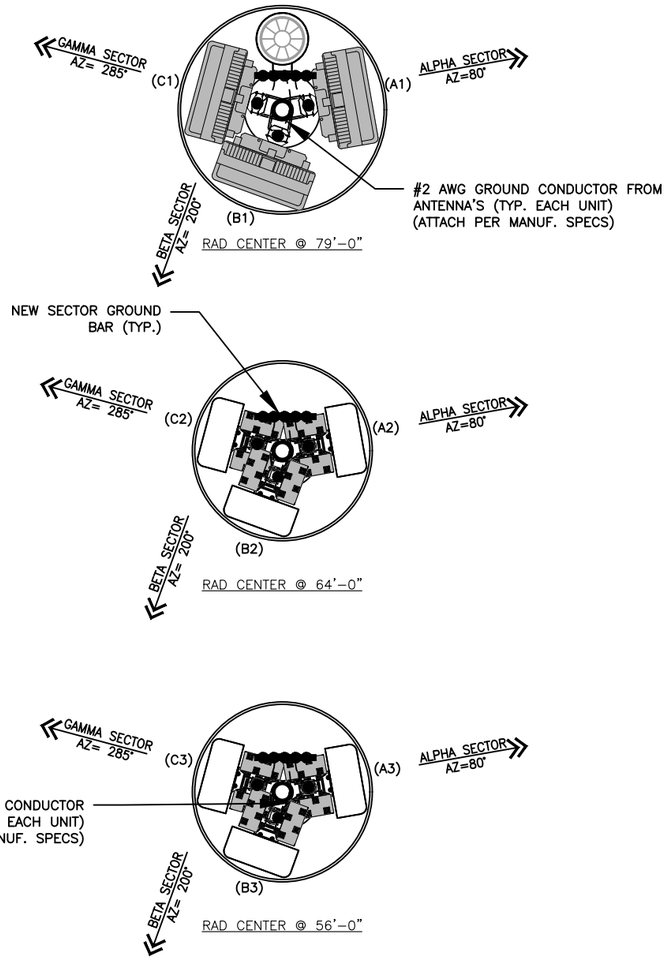
PROFESSIONAL ENGINEER

AT&T
SITE INPUT DATA
(2024 UPGRADE)

SITE NUMBER	SHEET NUMBER	REV
WA6413	E-1	1



GROUNDING LEGEND

- MECHANICAL CONNECTION
- EXOTHERMIC CONNECTION
- SECTOR GROUND BAR
- GROUND WIRE

REUSE EXISTING SITE TOWER GROUNDING

TRUE NORTH

ANTENNA GROUNDING PLAN

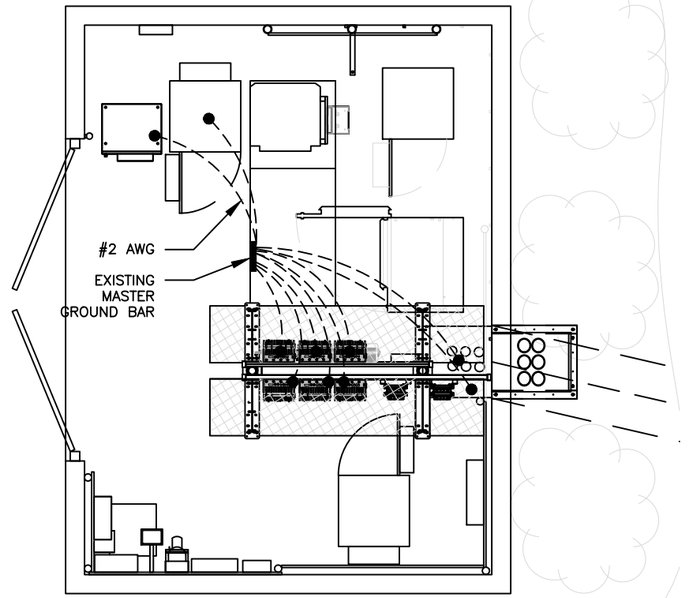
0 1' 2' 3'

SCALE: 3/8"=1'-0" (11x17)
(OR) 3/4"=1'-0" (22x34)

1

AT&T STANDARDS TO REFER TOO:

ATT-CEM-23001
ATT-TP-76416
ATT-TP-76300
ATT-CEM-18002
ATT-002-290-531
ATT-002-290-701



TRUE NORTH

EQUIPMENT GROUNDING PLAN

0 3' 6'

SCALE: 3/16"=1'-0" (11x17)
(OR) 3/8"=1'-0" (22x34)

2

NOTES:

1. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
2. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
3. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWG COPPER WIRE AND UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G., NON-METALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
6. ANY EQUIPMENT, BOX, SKID TO BE GROUNDED AND DOES NOT HAVE A DESIGNATED GROUND CONNECTION SHALL BE DRILLED AS NECESSARY TO CONNECT A GROUND WIRE. REMOVE PAINT IN AREA UNDER LUG. APPLY ANTI-OXIDANT COMPOUND AND CONNECT WITH TWO-HOLE, COMPRESSION LUG.
7. GROUND BARS SHALL BE TINNED COPPER AND SHALL BE ENGRAVED OR IMPRESSED "STOLEN-DO NOT RECYCLE" AND/OR "PROPERTY OF AT&T", ETCHED OR STAMPED WITH SITE FA LOCATION AND SECURED WITH ANTI-THEFT HARDWARE.
8. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING FOR GROUND ELECTRODE SYSTEMS. TESTING SHALL BE IN ACCORDANCE WITH IEEE STD 81.
9. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS. WHEN ADDING ELECTRODES, CONTRACTOR SHALL MAINTAIN A MINIMUM DISTANCE BETWEEN THE ADDED ELECTRODE AND ANY OTHER EXISTING ELECTRODE EQUAL TO THE BURIED LENGTH OF THE ROD. IDEALLY, CONTRACTOR SHALL STRIVE TO KEEP THE SEPARATION DISTANCE EQUAL TO OR LESS THAN TWICE THE BURIED LENGTH OF THE RODS.
10. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
11. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
12. EACH INTERIOR COMMUNICATION CABINET FRAME/PLINTH SHALL BE ELECTRICALLY ISOLATED FROM GROUNDS AND SHALL BE DIRECTLY CONNECTED TO THE CELL REFERENCE GROUND BAR WITH 6 AWG OR LARGER STRANDED, GREEN INSULATED GROUND WIRES.
13. GROUND WIRING INSTALLED OUTDOOR EXPOSED SHALL BE 600V, GREEN SUNLIGHT RESISTANT UL LISTED TYPE THW OR THWN OR XHHW, ANNEALED, TINNED, OR UN-TUNNED CLASS B OR CLASS I STRANDED COPPER, SIZE 6 UNLESS OTHERWISE SPECIFIED.
14. GROUND RODS SHOULD BE SPACED AT APPROXIMATELY TWICE THEIR LENGTH AS PER ATT-TP-76416 SPECIFICATIONS.

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1-855-669-5421

SITE NUMBER: WA6413
SITE NAME: SOUTH HILL MALL
PRCTI20250451
3310 SOUTH MERIDIAN
PUYALLUP, WA 98373
PIERCE COUNTY

REV	DATE	DESCRIPTION	BY
1	01/15/25	ISSUED FOR PERMITTING USE ONLY	RC
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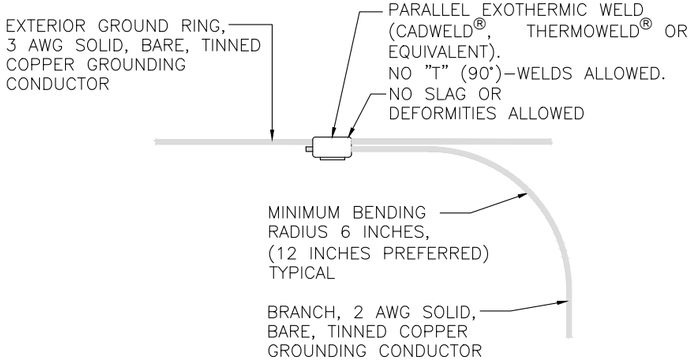
MICHAEL S. MOORE
STATE OF WASHINGTON
23006887
1/20/2025
REGISTERED PROFESSIONAL ENGINEER

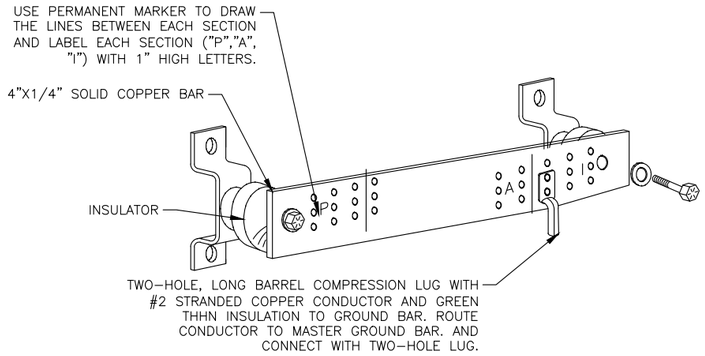
AT&T

GROUNDING PLAN
(2024 UPGRADE)

SITE NUMBER	SHEET NUMBER	REV
WA6413	G-1	1



TYPICAL EXTERIOR GROUND RING CONNECTION | NOT TO SCALE | 1

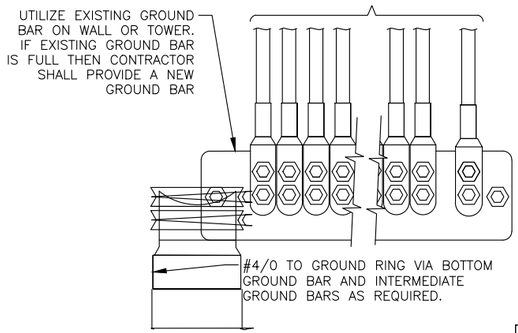


EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

SECTION "P" – SURGE PRODUCERS

CABLE ENTRY PORTS (HATCH PLATES)
GENERATOR FRAMEWORK (IF AVAILABLE)
TELCO GROUND BAR
COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND
+24V POWER SUPPLY RETURN BAR (#2)
–48V POWER SUPPLY RETURN BAR (#2)
RECTIFIER FRAMES

GROUND BAR | NOT TO SCALE | 2



City of Puyallup
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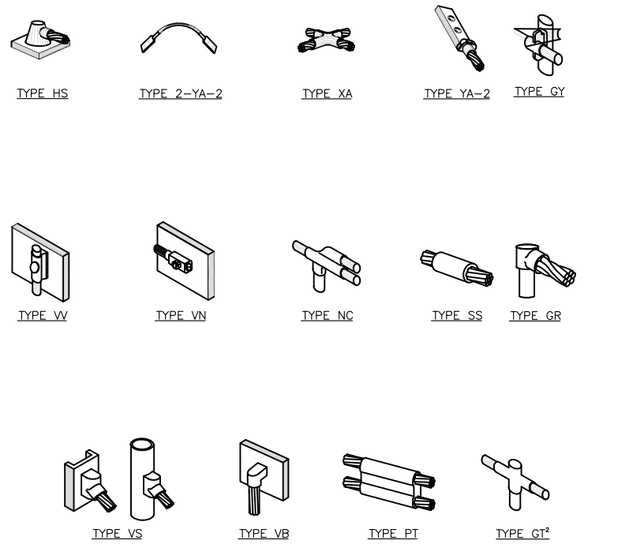
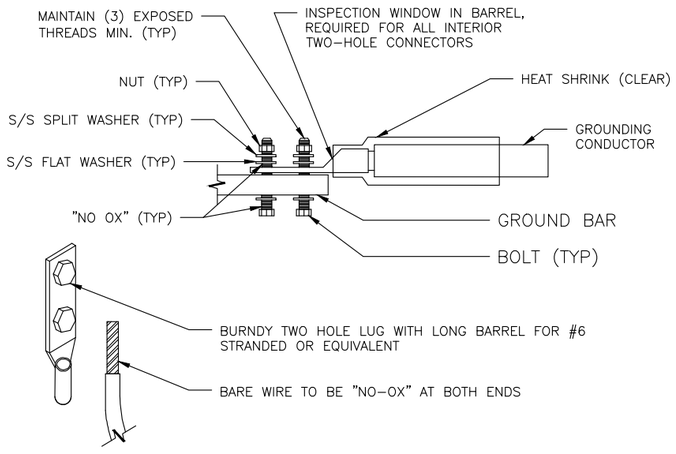
SECTOR GROUND BAR | NOT TO SCALE | 3



NOTE:

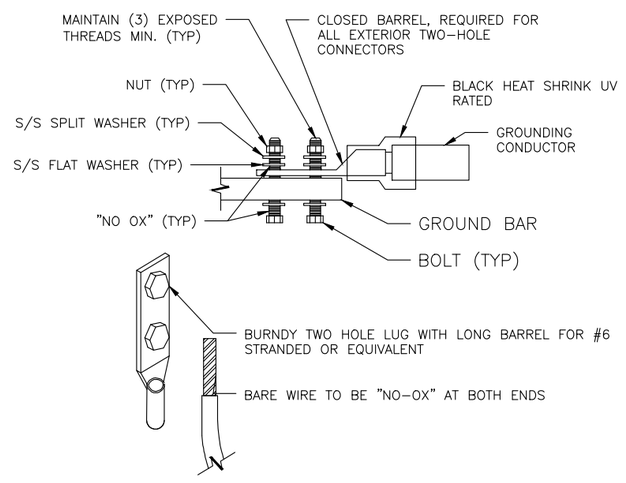
1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.
2. MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

CADWELD GROUNDING CONNECTIONS | NOT TO SCALE | 4



NOTES:
1. ALL HARDWARE SHALL BE 18–8 STAINLESS STEEL.
2. COAT ALL SURFACES WITH ANTIOXIDANT COMPOUND BEFORE MATING.
3. ALL EXPOSED EASILY ACCESSIBLE GROUND BARS SHALL BE TAGGED "DO NOT DISCONNECT".
4. COAT ALL BARRELS WITH ANTIOXIDANT BEFORE CRIMPING.

INTERIOR GROUND BAR LUG | NOT TO SCALE | 5



NOTES:
1. ALL HARDWARE SHALL BE 18–8 STAINLESS STEEL.
2. COAT ALL SURFACES WITH ANTIOXIDANT COMPOUND BEFORE MATING.
3. ALL EXPOSED EASILY ACCESSIBLE GROUND BARS SHALL BE TAGGED "DO NOT DISCONNECT".
4. COAT ALL BARRELS WITH ANTIOXIDANT BEFORE CRIMPING.

EXTERIOR GROUND BAR LUG | NOT TO SCALE | 6

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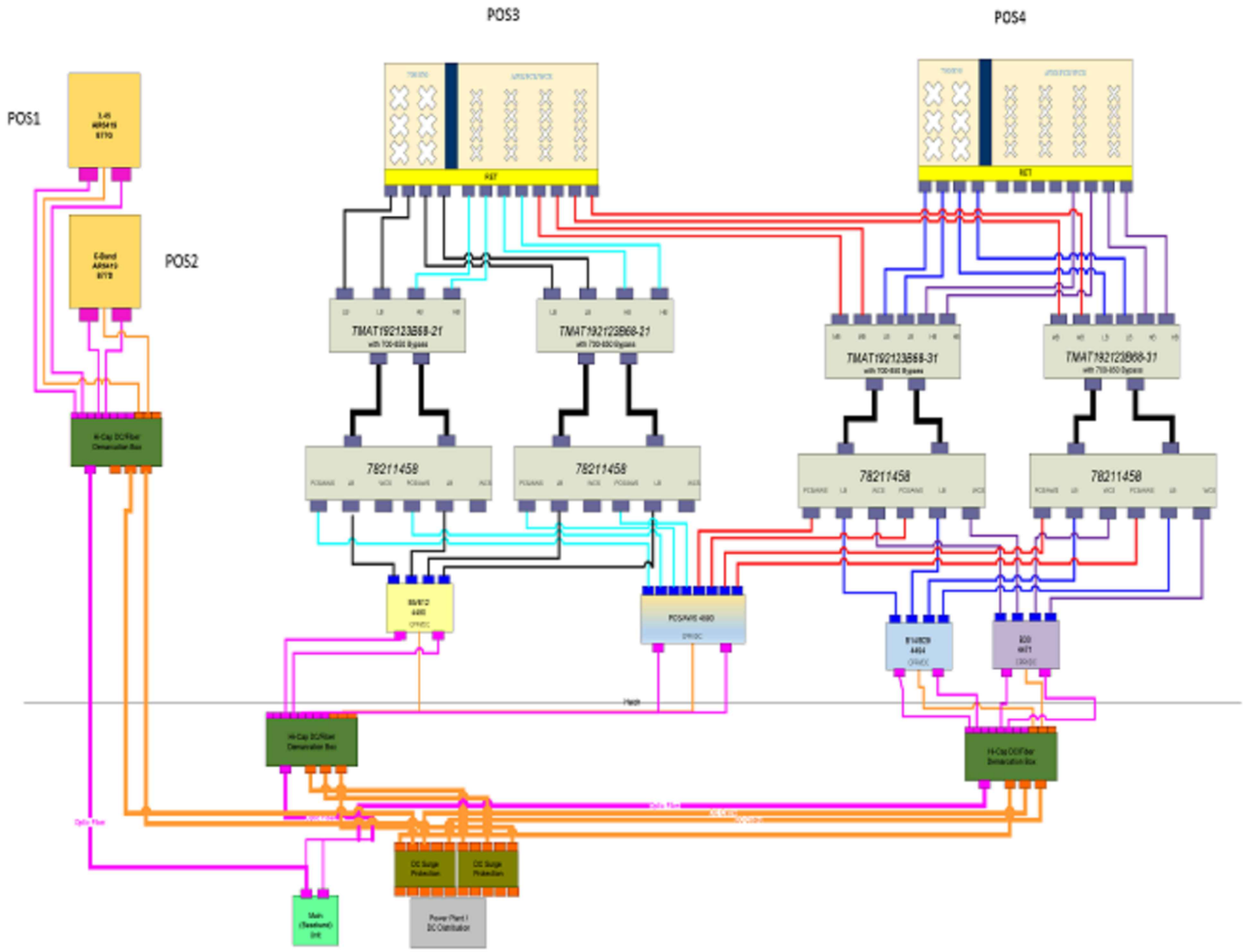
GROUNDING DETAILS
(2024 UPGRADE)

SITE NUMBER	SHEET NUMBER	REV
WA6413	G–2	1

Sector A



City of Puyallup
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RF PLUMBING DIAGRAM ALPHA SECTOR

N.T.S. | 1

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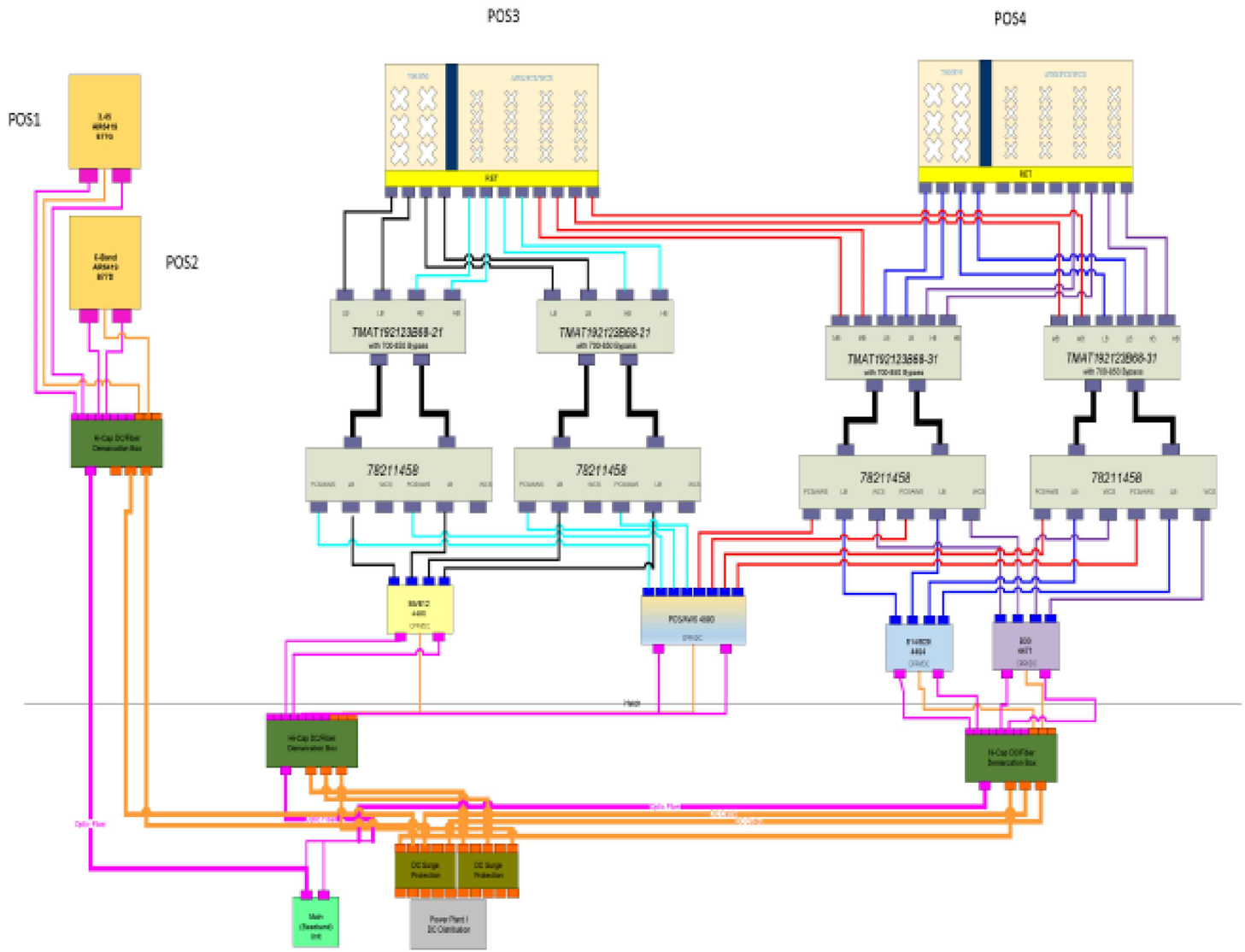
PLUMBING DIAGRAM – ALPHA SECTOR
(2024 UPGRADE)

SITE NUMBER	SHEET NUMBER	REV
WA6413	RF-1	1

Sector B



City of Puyallup
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RF PLUMBING DIAGRAM BETA SECTOR

N.T.S. | 1

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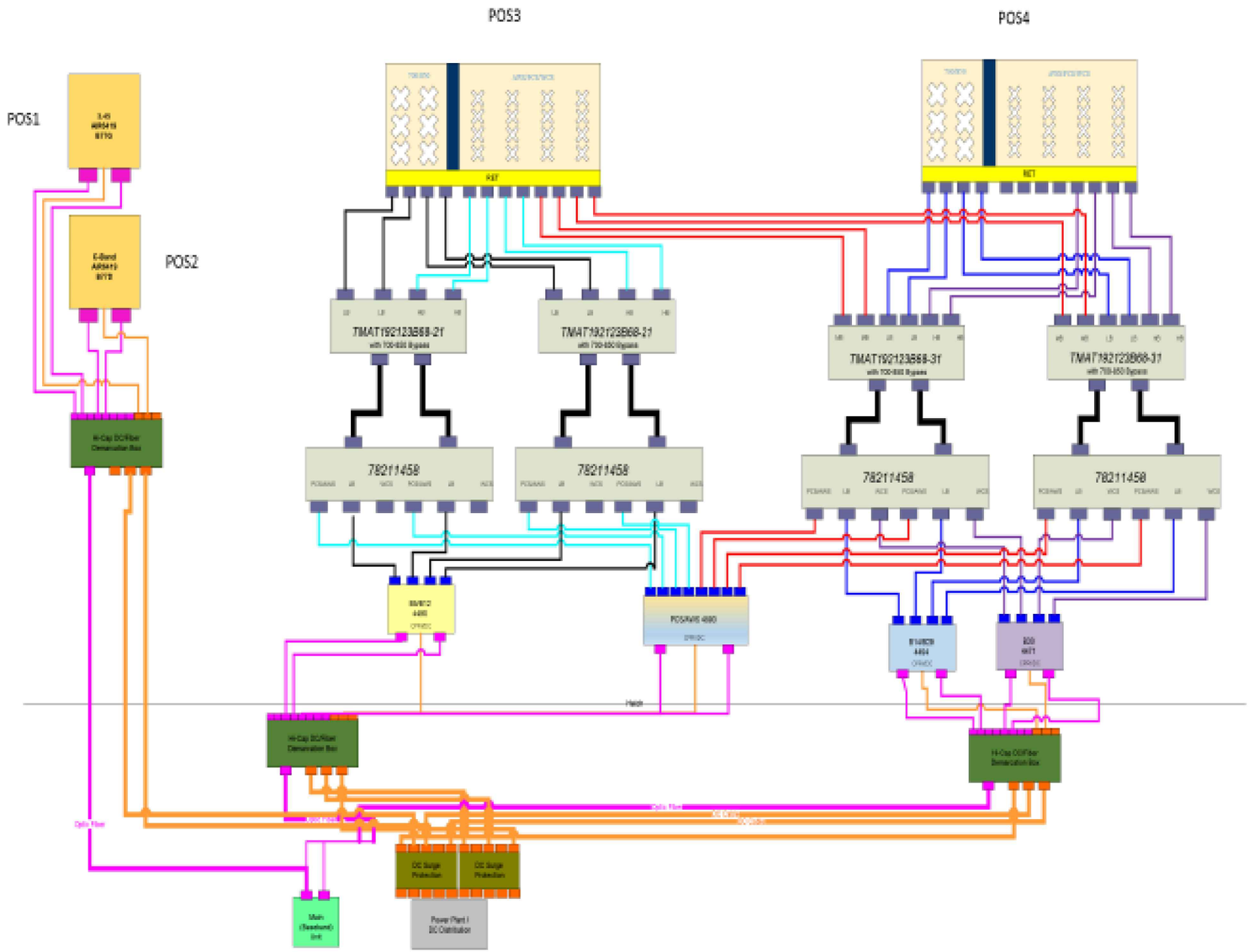
PLUMBING DIAGRAM – BETA SECTOR
(2024 UPGRADE)

SITE NUMBER	SHEET NUMBER	REV
WA6413	RF-2	1

Sector C



City of Puyallup
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RF PLUMBING DIAGRAM GAMMA SECTOR

N.T.S. | 1

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PLUMBING DIAGRAM – GAMMA SECTOR
(2024 UPGRADE)

SITE NUMBER	SHEET NUMBER	REV
WA6413	RF-3	1