City of Puyallup
Development
Engineering
APPROVED

See permit
for additional
requirements.

Linda Lian
02/23/2023
2:13:14 PM

City of Puyallup
Planning
Division
APPROVED

See permit
conditions.

NComstock
04/14/2023
1:22:40 PM

PRCTI20230195

AT&T

5G NR 1SR CBAND

SITE ID: **TA48**

SITE NAME: **DOWNTOWN PUYALLUP**

SITE ADDRESS: **110 9TH AVENUE SOUTHWEST**
PUYALLUP, WA 98371

COUNTY: **PIERCE**

JURISDICTION: **CITY OF PUYALLUP,WA**

PACE #: **MRWOR058832**
MRWOR059704
MRWOR059642
MRWOR058840

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 LEDGIBLE COLOR PLANS ARE REQUIRED TO BE PROVIDED BY THE PERMITEE ON SITE FOR INSPECTION

City of Puyallup
Building
ACCEPTED

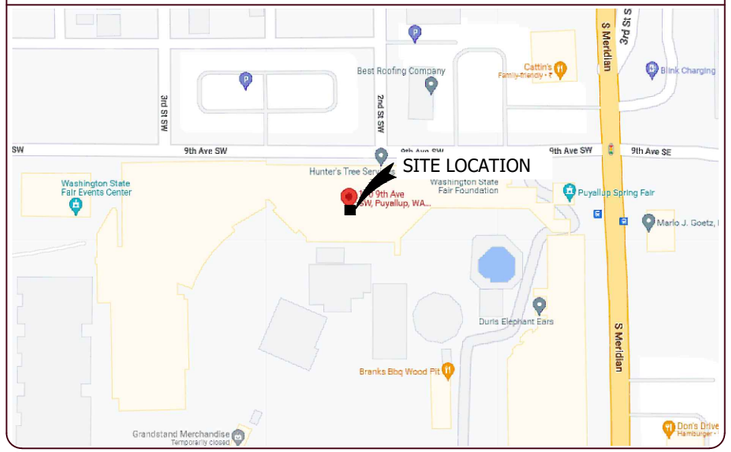
JMontgomery
03/13/2023
11:09:11 AM

PROJECT INFORMATION

SITE NAME	DOWNTOWN PUYALLUP
SITE ID:	TA48
FA#:	10102328
USID:	44225
SITE ADDRESS:	110 9TH AVENUE SOUTHWEST PUYALLUP, WA 98371
COUNTY:	PIERCE
APN:	0420331121
JURISDICTION:	CITY OF PUYALLUP,WA
ZONING:	FAIR
LATITUDE (NAD83):	47° 11' 01.5" N
LONGITUDE (NAD83):	122° 17' 47.5" W
GROUND ELEVATION:	39'-0"± AMSL
SITE TYPE:	ROOF TOP
BUILDING HEIGHT:	65'-6"

APPLICANT:	AT&T WIRELESS 200 NORTH WARNER RD. KING OF PRUSSIA, PA 19406 MATTHEW MCGURK MM440D@ATT.COM
PROPERTY OWNER: ADDRESS:	WESTERN WASHINGTON FAIR ASSN 110 9TH AVE SW PUYALLUP, WA 98371
TOWER OWNER: ADDRESS:	UNKNOWN UNKNOWN UNKNOWN
A&E FIRM: ADDRESS:	TRYLON TSF 1825 W. WALNUT HILL LANE, STE#120 IRVING, TX 75038
CONTACT: PHONE: EMAIL:	MIKE MOORE 1-855-669-5421 MIKE.MOORE@TRYLON.COM
CONSTRUCTION TYPE:	V-B
USE GROUP:	UNKNOWN
OCCUPANCY TYPE:	GROUP U
ADA COMPLIANCE	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION

VICINITY MAP



PROJECT DESCRIPTION

THE SCOPE OF WORK WILL BE COMPRISED OF:

TOWER SCOPE OF WORK:

- REMOVE (3) SBNHH-1D65C ANTENNAS
- REMOVE (3) 742-265 ANTENNAS
- REMOVE (3) 80010892-V01 ANTENNAS
- REMOVE (6) LGP21401 TMAs
- INSTALL (3) NEW AEQK+AEQU STACKED ANTENNAS
- INSTALL (3) NEW CMA-UBTULBULBHH-6517-17-21-21 ANTENNAS
- INSTALL (1) DC TRUNK
- INSTALL (1) FIBER TRUNK
- INSTALL (1) DC6-48-60-0-1B-01 SQUID
- INSTALL (2) ANTENNA MOUNT

GROUND SCOPE OF WORK:

- REMOVE (1) 2-48V CONVERTER SHELVES & WIRES
- REMOVE (1) UMTS CABINET
- REMOVE (1) ABIL AND (1) ASIK BASEBAND
- REMOVE (1) PP AND (1) BATTERY CABINET
- REMOVE (6) DIPLEXER
- INSTALL (1) EMERSON NETSURE 512
- INSTALL (13) RECTIFIERS
- INSTALL (1) -48V POWER PLANT
- INSTALL (3) ABIO AND (1) ASIL BASEBAND

NOTE:
THE POWER DESIGN FOR ANY AC ELECTRICAL POWER CANGES IS TO BE PERFORMED BY OTHERS AND IS SHOWN HERE FOR REFERENCE PURPOSES ONLY. AT&T IS SOLELY RESPONSIBLE FOR THE ELECTRICAL POWER DESIGN.

RFDS

RFDS ID: 4438988 ISSUE DATE: 03/26/2021 REVISION: 1.00 UPDATED BY: jx615k
DATE/TIME UPDATED: 4/25/2022 7:08:54 PM

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

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR A 11"X17" SET. 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.

CODE COMPLIANCE

ALL WORK & MATERIALS SHALL BE PERFORMED & 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:

- 2018 INTERNATIONAL BUILDING CODE
- 2018 INTERNATIONAL RESIDENTIAL CODE
- 2018 INTERNATIONAL MECHANICAL CODE
- 2018 UNIFORM PLUMBING CODE
- 2018 INTERNATIONAL FIRE CODE
- 2018 WASHINGTON STATE ENERGY CODE
- 2016 NFPA STANDARD 72
- 2016 NFPA STANDARD 13, 13-D, AND 13-R

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

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

AERIAL MAP

APPROVALS

AT&T (CM): _____ DATE: _____
MASTEC (PM): _____ DATE: _____
RF ENGINEER: _____ DATE: _____
SITE ACQUISITION: _____ DATE: _____
LANDLORD: _____ DATE: _____

SHEET INDEX

SHEET #	DESCRIPTION	REVISION #
T-1	TITLE SHEET	0
N-1	GENERAL NOTES	0
N-2	ELECTRICAL NOTES	0
C-1	SITE PLAN	0
C-2 TO C-2.1	EQUIPMENT LAYOUT	0
C-3	ELEVATION VIEWS	0
C-4	ANTENNA LAYOUT	0
C-5 TO C-5.1	ANTENNA SCHEDULE	0
C-6	DETAILS	0
C-7	DETAILS	0
C-8	DETAILS	0
RF-1	RF PLUMBING DIAGRAM	0
G-1	GROUNDING DIAGRAM	0
G-2	GROUNDING DETAILS	0

SEE PAGES 81-90 FOR STRUCTURAL ENGINEER MOUNT REINFORCEMENT DRAWINGS IN STRUCTURAL CALCULATIOS.

AT&T

MasTec
Network Solutions
22263 68TH AVENUE SOUTH
KENT, WA 98032

Trylon
1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	05/13/2022	90% CD	PSK
B	06/28/2022	90% CD	JAC
C	09/17/2022	90% CD	GOP
D	10/18/2022	90% CD	ROS
0	11/16/2022	100% CD	MVF

CLIFF ABERNATHY
STATE OF WASHINGTON
52593
REGISTERED
PROFESSIONAL ENGINEER
11.22.22

PROJECT TITLE

SITE ID: TA48
FA#: 10102328

DOWNTOWN PUYALLUP

110 9TH AVENUE SOUTHWEST
PUYALLUP, WA 98371

EXISTING 65'-6"
STADIUM BUILDING

SHEET DESCRIPTION

TITLE SHEET

SHEET NO.

T-1

SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED– NO WORK SHALL COMMENCE PRIOR TO WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE THE CONSTRUCTION MANAGER.
2. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
3. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND STANDARD CED–STD–10253, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA–322 (LATEST EDITION).
4. ALL SITE WORK TO COMPLY WITH QAS–STD–10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON TOWER SITE" AND LATEST VERSION OF ANSI/TIA–1019–A–2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
5. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
6. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR 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. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
9. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
10. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
11. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
12. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, TOWER OWNER, , AND/OR LOCAL UTILITIES.
13. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
14. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
15. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
16. THE AREAS OF THE OWNERS 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 AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
17. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
18. 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 OWNER.
19. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
20. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
21. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
   CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION
   CARRIER: **AT&T MOBILITY**
   TOWER OWNER: **UNKNOWN**
2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
5. SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
6. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF AT&T.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR 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. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND AT&T PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION AND IS TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
12. 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 AT&T
13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

PRCTI20230195

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

NOTES

AT&T

MasTec
Network Solutions
22263 68TH AVENUE SOUTH
KENT, WA 98032

Trylon
1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

SUBMITTALS

REV	DATE	DESCRIPTION	BY
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B	06/28/2022	90% CD	JAC
C	09/17/2022	90% CD	GOP
D	10/18/2022	90% CD	ROS
0	11/16/2022	100% CD	MVF

CLIFF ABERNATHY
STATE OF WASHINGTON
11.22.22
52593
REGISTERED
PROFESSIONAL ENGINEER

PROJECT TITLE

SITE ID: TA48
FA#: 10102328

DOWNTOWN PUYALLUP

110 9TH AVENUE SOUTHWEST
PUYALLUP, WA 98371

EXISTING 65'-6"
STADIUM BUILDING

SHEET DESCRIPTION

GENERAL NOTES

SHEET NO.

N-1

PRCTI20230195

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
   - 4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
   - 4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERYIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
5. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
8. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
16. ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
18. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECMATE WIREWAY).
22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3R (OR BETTER) FOR EXTERIOR LOCATIONS.
25. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR AT&T BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "AT&T".
30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

GREENFIELD GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2. THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. 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.
6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING 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 CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

CONDUCTOR COLOR CODE		
SYSTEM	CONDUCTOR	COLOR
120/240V, 1Ø	A PHASE	BLACK
	B PHASE	RED
	NEUTRAL	WHITE
	GROUND	GREEN
120/208V, 3Ø	A PHASE	BLACK
	B PHASE	RED
	C PHASE	BLUE
	NEUTRAL	WHITE
	GROUND	GREEN
277/480V, 3Ø	A PHASE	BROWN
	B PHASE	ORANGE OR PURPLE
	C PHASE	YELLOW
	NEUTRAL	GREY
	GROUND	GREEN
DC VOLTAGE	POS (+)	RED**
	NEG (-)	BLACK**

* SEE NEC 210.5(C)(1) AND (2)
** POLARITY MARKED AT TERMINATION

ABBREVIATIONS:

ANT	ANTENNA
(E)	EXISTING
FIF	FACILITY INTERFACE FRAME
GEN	GENERATOR
GPS	GLOBAL POSITIONING SYSTEM
GSM	GLOBAL SYSTEM FOR MOBILE
LTE	LONG TERM EVOLUTION
MGB	MASTER GROUND BAR
MW	MICROWAVE
(N)	NEW
NEC	NATIONAL ELECTRIC CODE
(P)	PROPOSED
PP	POWER PLANT
QTY	QUANTITY
RECT	RECTIFIER
RBS	RADIO BASE STATION
RET	REMOTE ELECTRIC TILT
RFDS	RADIO FREQUENCY DATA SHEET
RRH	REMOTE RADIO HEAD
RRU	REMOTE RADIO UNIT
SIAD	SMART INTEGRATED DEVICE
TMA	TOWER MOUNTED AMPLIFIER
TYP	TYPICAL
UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
W.P.	WORK POINT

APWA UNIFORM COLOR CODE:

WHITE	PROPOSED EXCAVATION
PINK	TEMPORARY SURVEY MARKINGS
RED	ELECTRIC POWER LINES, CABLES, CONDUIT, AND LIGHTING CABLES
YELLOW	GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS
ORANGE	COMMUNICATION, ALARM OR SIGNAL LINES, CABLES, OR CONDUIT AND TRAFFIC LOOPS
BLUE	POTABLE WATER
PURPLE	RECLAIMED WATER, IRRIGATION, AND SLURRY LINES
GREEN	SEWERS AND DRAIN LINES

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

NOTES

AT&T

MasTec
Network Solutions
22263 68TH AVENUE SOUTH
KENT, WA 98032

Trylon
1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	05/13/2022	90% CD	PSK
B	06/28/2022	90% CD	JAC
C	09/17/2022	90% CD	GOP
D	10/18/2022	90% CD	ROS
0	11/16/2022	100% CD	MVF

CLIFF ABERNATHY
STATE OF WASHINGTON
11.22.22
52593
REGISTERED
PROFESSIONAL ENGINEER

PROJECT TITLE

SITE ID: TA48
FA#: 10102328

DOWNTOWN PUYALLUP

110 9TH AVENUE SOUTHWEST
PUYALLUP, WA 98371

EXISTING 65'-6"
STADIUM BUILDING

SHEET DESCRIPTION

ELECTRICAL NOTES

SHEET NO.

N-2

EXISTING 35'-0" UTILITY POLE WITH LIGHT @ 29'-0".

EXISTING PARKING LOT

APN#: 5745301290

APN#: 5745301261

EXISTING PARKING LOT

APN#: 5745301250

1 C-3

EXISTING 55'-0" UTILITY POLE WITH LIGHT @ 29'-0".

EXISTING BUILDING

APN#: 5745301245

APN#: 5745301244

EXISTING PARKING LOT

9TH AVE SW

EXISTING BUILDING

EXISTING BUILDING

EXISTING 44'-0" STADIUM BUILDING

EXISTING BUILDING

EXISTING PROPERTY LINE (TYP.)

1 C-2 (E) & (N) AT&T EQUIPMENT LAYOUT

(E) & (N) AT&T ANTENNA LAYOUT 1 C-4 1 C-4.1

EXISTING BUILDING

EXISTING BUILDING

EXISTING BUILDING

EXISTING BUILDING

EXISTING BUILDING

APN#: 0420331121
ZONING: FAIR

EXISTING PARKING LOT

EXISTING TREE (TYP.)

EXISTING BUILDING

EXISTING BUILDING

EXISTING BUILDING

EXISTING BUILDING

EXISTING PARKING LOT

S MERIDIAN

EXISTING PARKING LOT

TRUE NORTH

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

PRCTI20230195

SITE PLAN

0 40' 80'

SCALE: 1"=80'-0" (11x17)
(OR) 2"=80'-0" (22x34)

1

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KENT, WA 98032

Trylon
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CLIFF ABERNATHY
STATE OF WASHINGTON
11.22.22
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REGISTERED
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SITE ID: TA48
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DOWNTOWN PUYALLUP

110 9TH AVENUE SOUTHWEST
PUYALLUP, WA 98371

EXISTING 65'-6"
STADIUM BUILDING

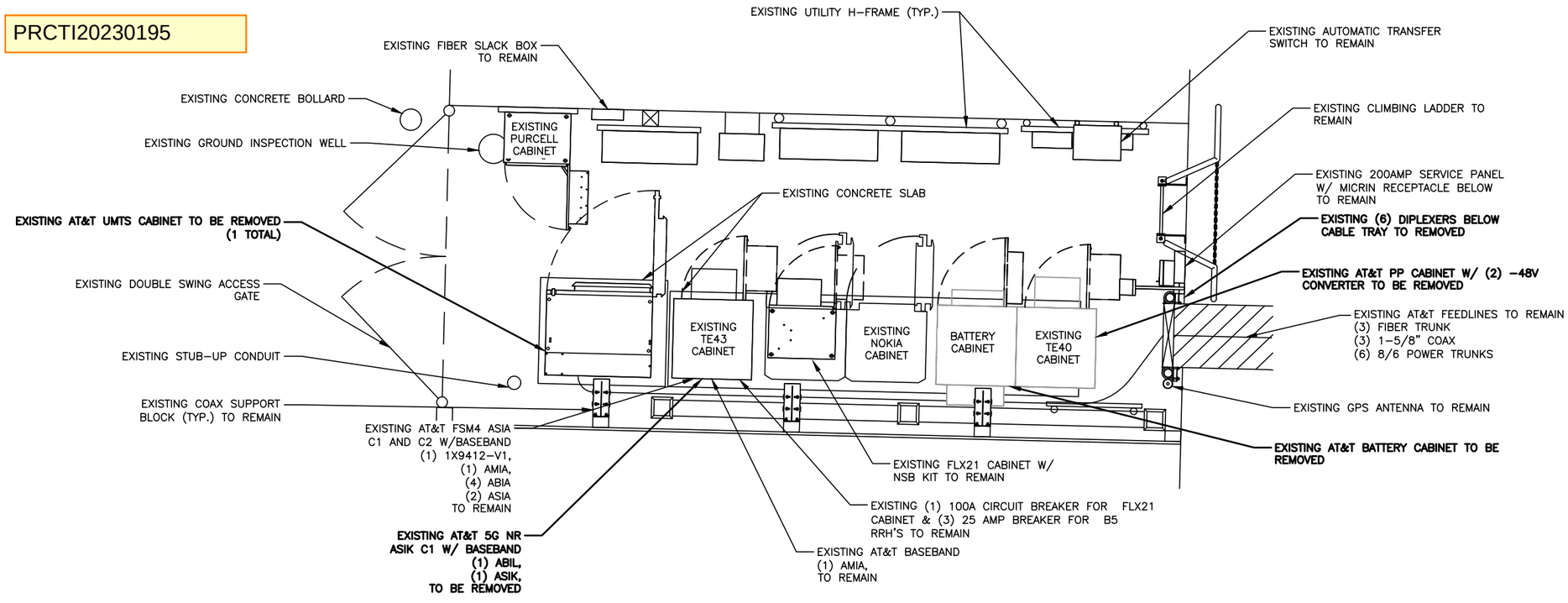
SHEET DESCRIPTION

SITE PLAN

SHEET NO.

C-1

PRCTI20230195

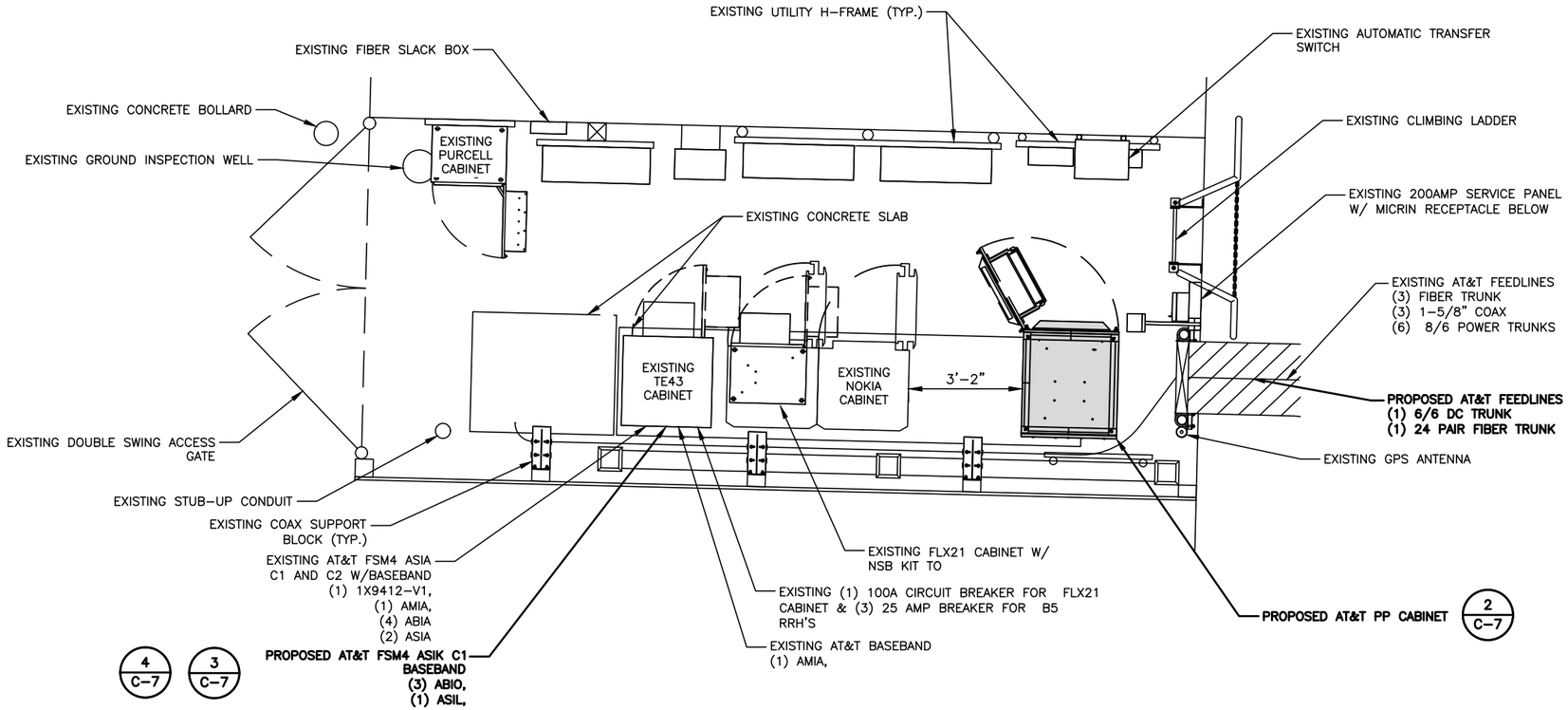


EXISTING EQUIPMENT LAYOUT

0 1' 2' 3'

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

1



City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

PROPOSED EQUIPMENT LAYOUT

0 1' 2' 3'

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

2

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KENT, WA 98032

Trylon
1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

SUBMITTALS

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CLIFF ABERNATHY
STATE OF WASHINGTON
11.22.22
52593
REGISTERED
PROFESSIONAL ENGINEER

PROJECT TITLE

SITE ID: TA48
FA#: 10102328

DOWNTOWN PUYALLUP

110 9TH AVENUE SOUTHWEST
PUYALLUP, WA 98371

EXISTING 65'-6"
STADIUM BUILDING

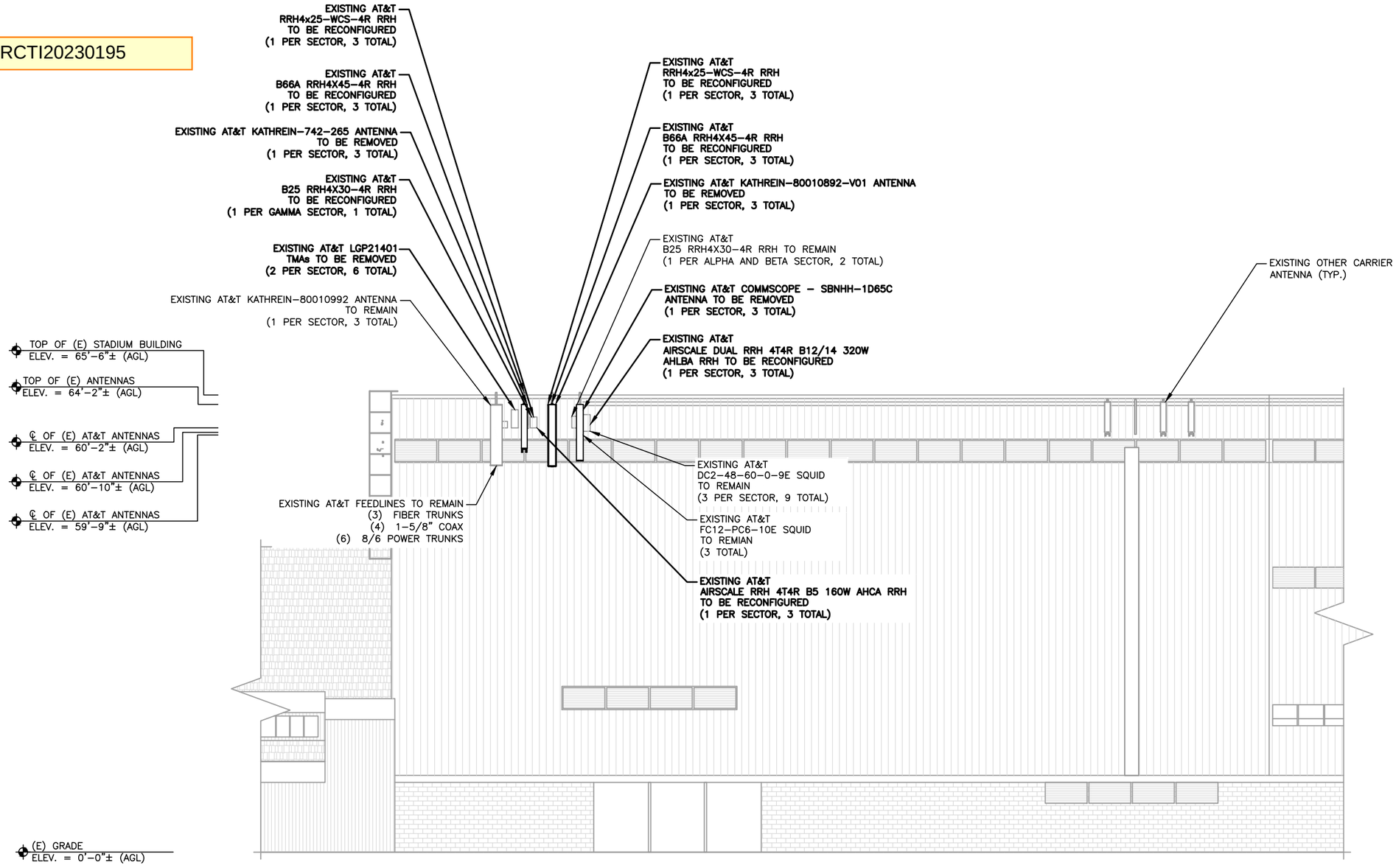
SHEET DESCRIPTION

EQUIPMENT LAYOUT

SHEET NO.

C-2

PRCTI20230195



City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

EXISTING NORTH ELEVATION VIEW

0 4' 8' 16'

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

1

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Trylon
1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

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CLIFF ABERNATHY
STATE OF WASHINGTON
52593
REGISTERED
PROFESSIONAL ENGINEER
11.22.22

PROJECT TITLE

SITE ID: TA48
FA#: 10102328

DOWNTOWN PUYALLUP

110 9TH AVENUE SOUTHWEST
PUYALLUP, WA 98371

EXISTING 65'-6"
STADIUM BUILDING

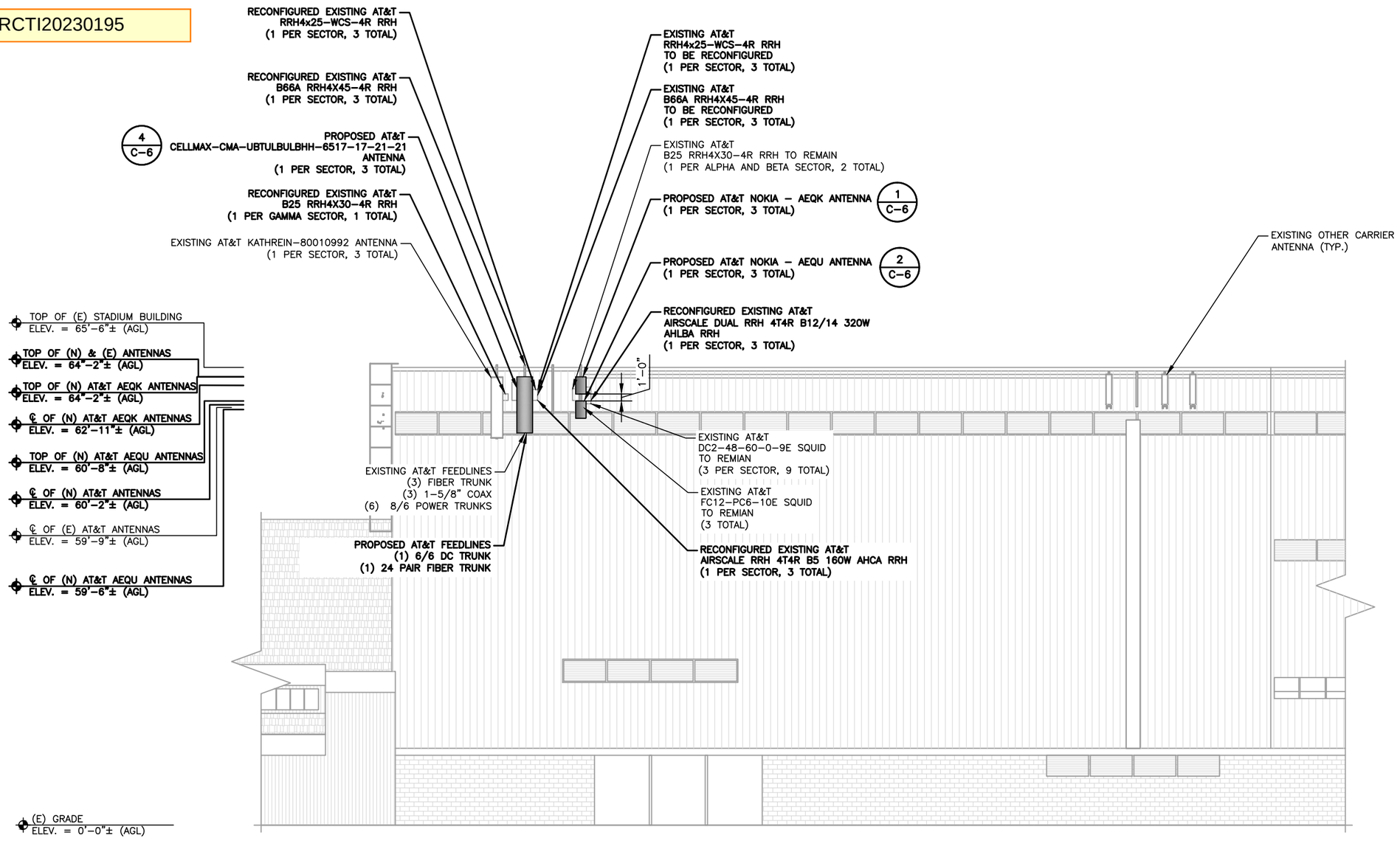
SHEET DESCRIPTION

ELEVATION VIEWS

SHEET NO.

C-3

PRCTI20230195



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

PROPOSED NORTH ELEVATION VIEW

0 4' 8' 16'

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

1

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KENT, WA 98032

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1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

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D	10/18/2022	90% CD	ROS
0	11/16/2022	100% CD	MVF

CLIFF ABERNATHY
STATE OF WASHINGTON
11.22.22
52593
REGISTERED
PROFESSIONAL ENGINEER

PROJECT TITLE

SITE ID: TA48
FA#: 10102328

DOWNTOWN PUYALLUP

110 9TH AVENUE SOUTHWEST
PUYALLUP, WA 98371

EXISTING 65'-6"
STADIUM BUILDING

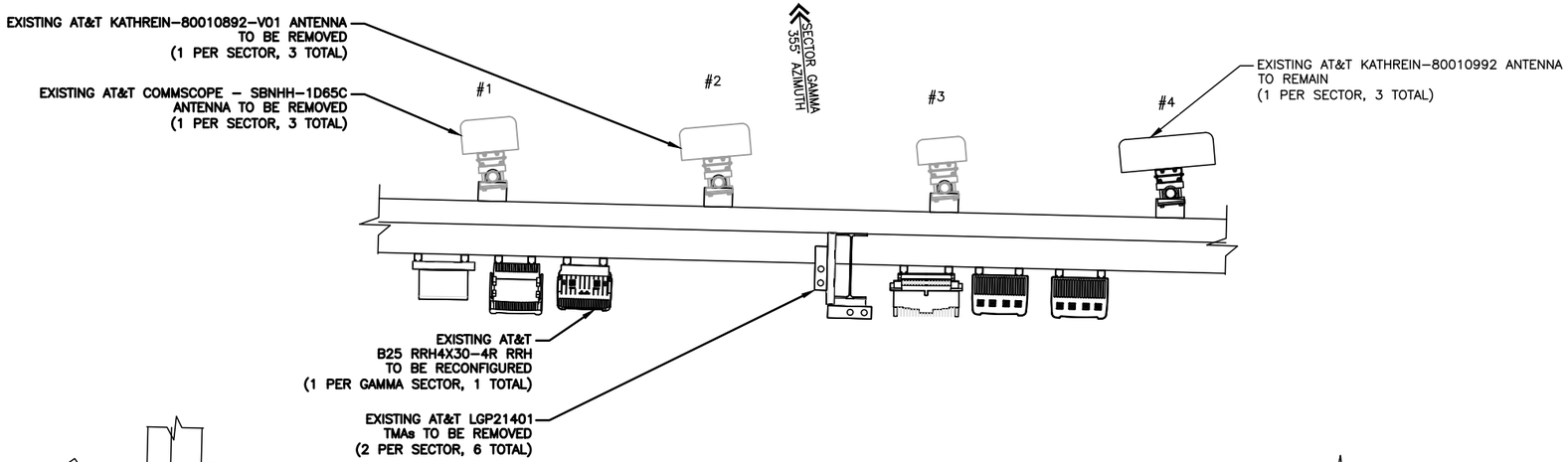
SHEET DESCRIPTION

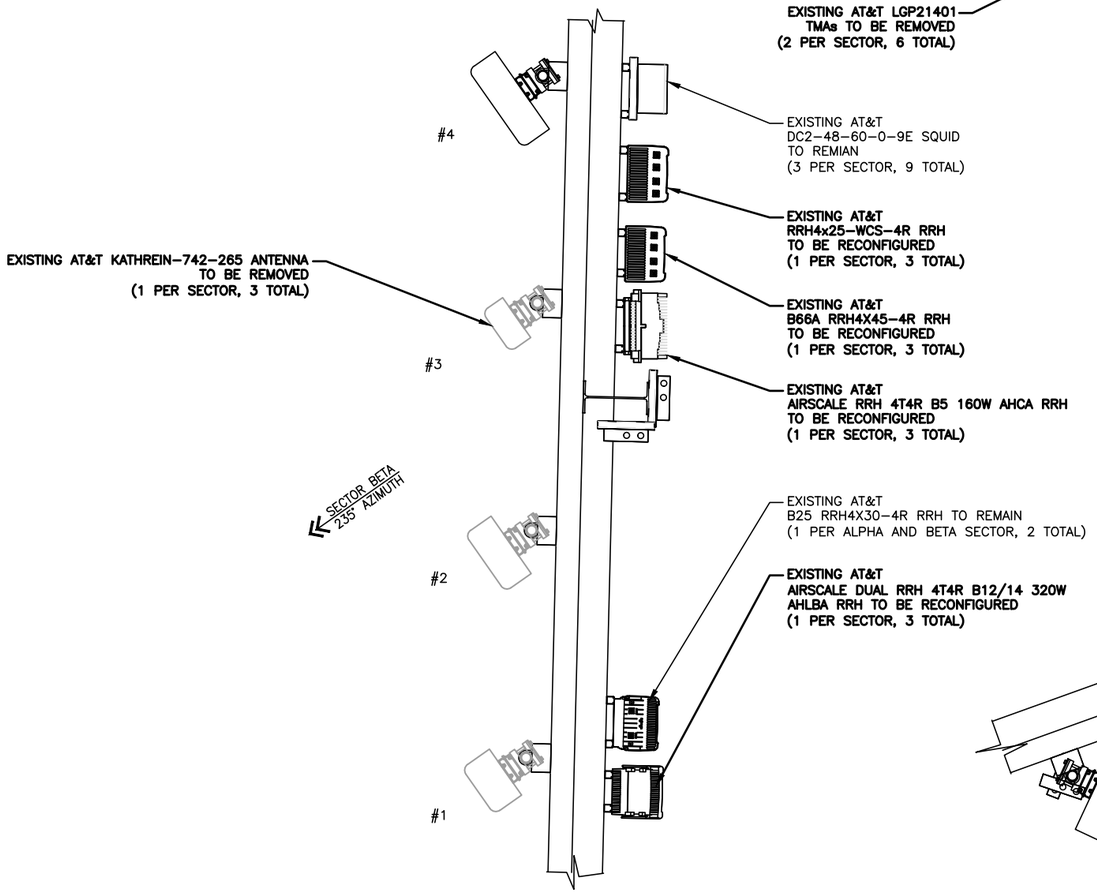
ELEVATION VIEWS

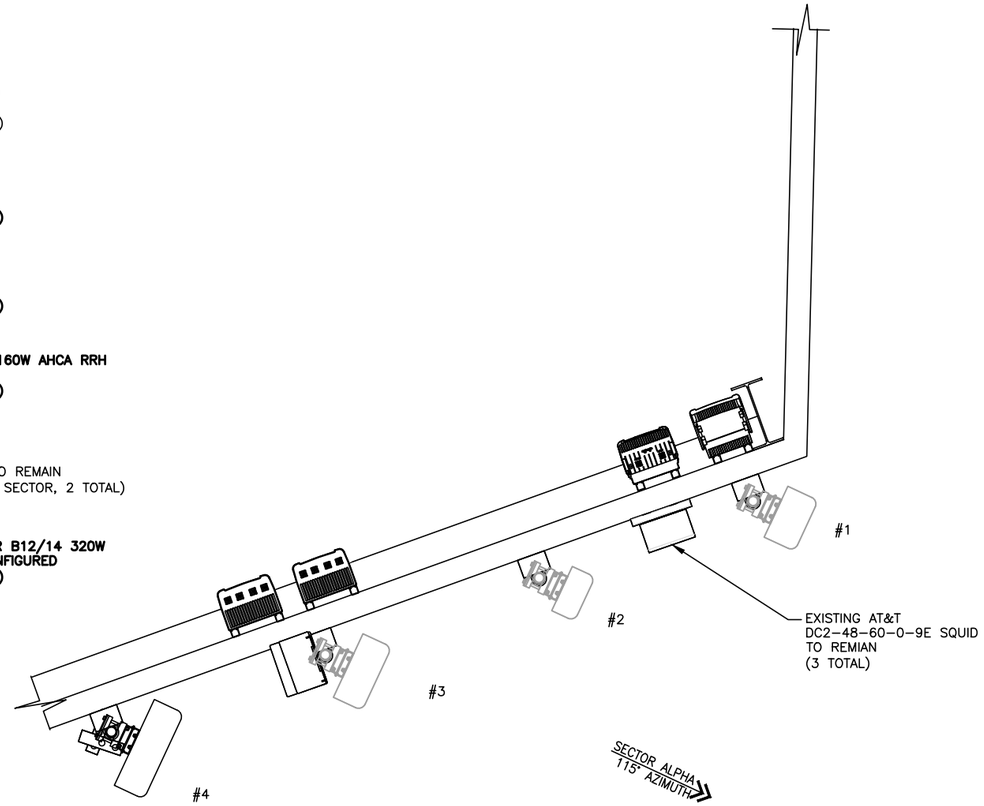
SHEET NO.

C-3.1

PRCTI20230195







City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

TRUE NORTH

EXISTING ANTENNA LAYOUT

0 1' 2' 3'

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

1

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IRVING, TEXAS 75038

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CLIFF ABERNATHY
STATE OF WASHINGTON
52593
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11.22.22

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DOWNTOWN PUYALLUP

110 9TH AVENUE SOUTHWEST
PUYALLUP, WA 98371

EXISTING 65'-6"
STADIUM BUILDING

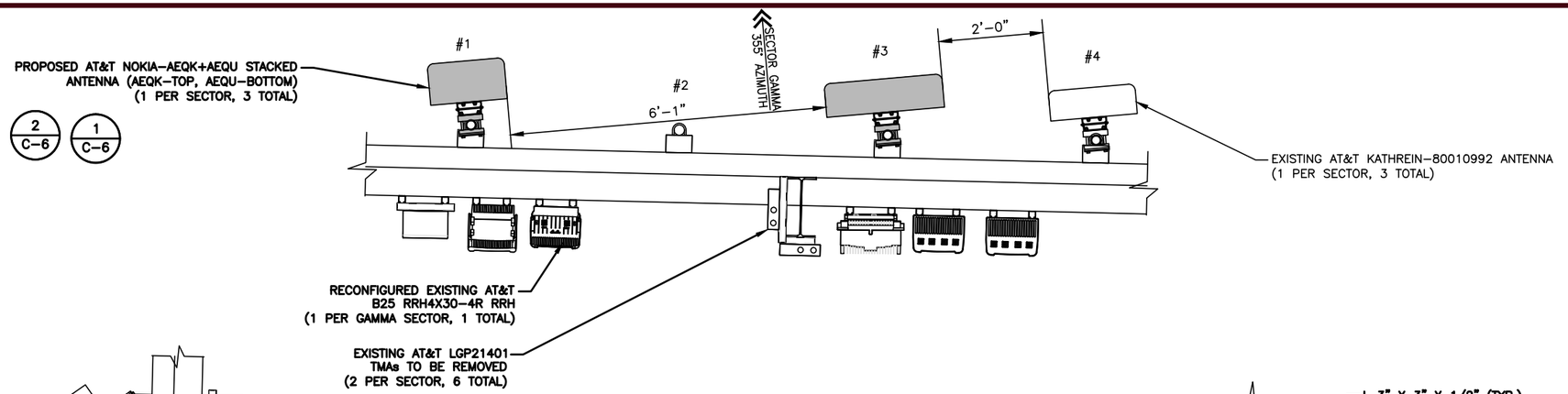
SHEET DESCRIPTION

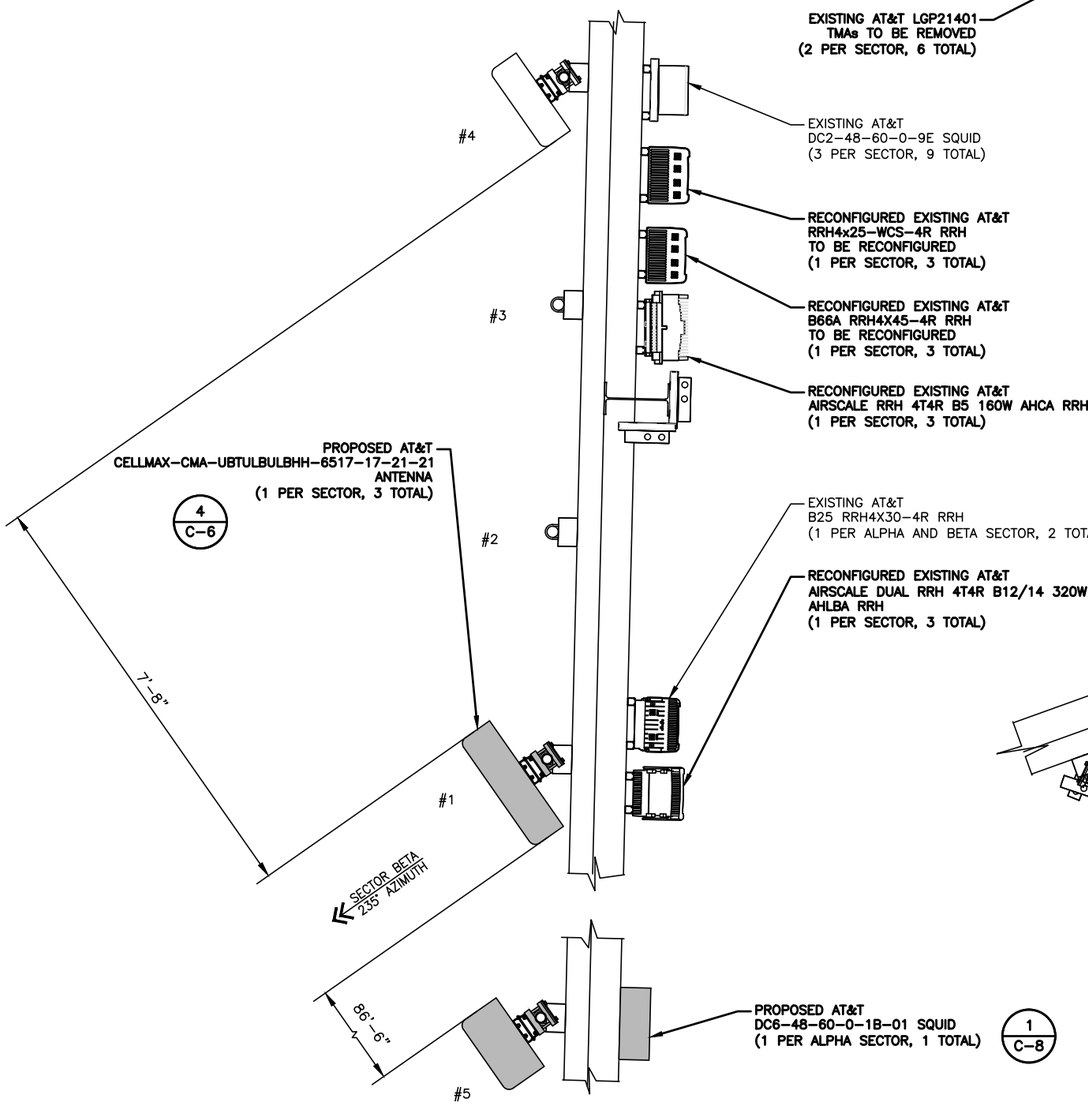
ANTENNA LAYOUT

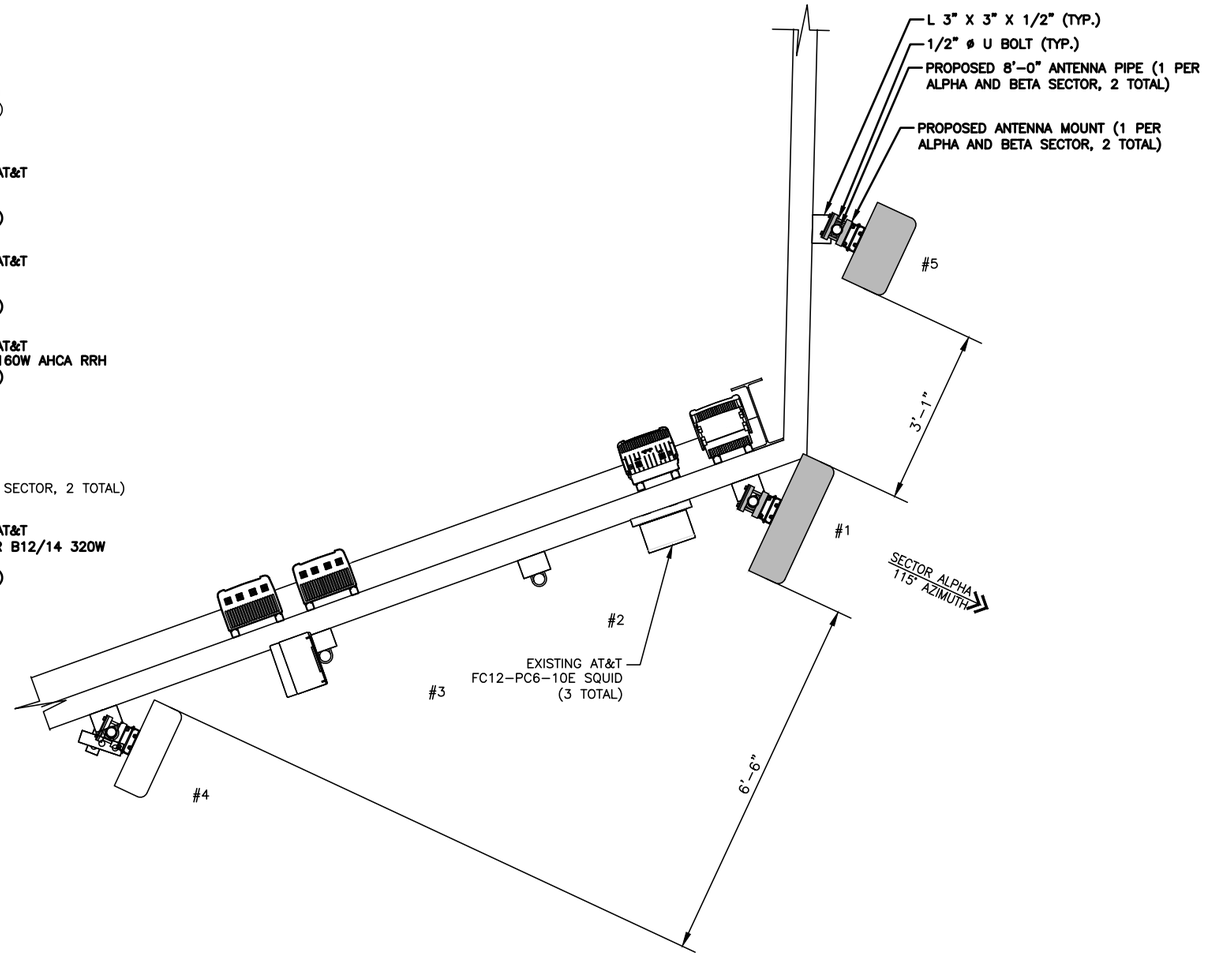
SHEET NO.

C-4

PRCTI20230195







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

TRUE NORTH

PROPOSED ANTENNA LAYOUT

0 1' 2' 3'

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

2

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22263 68TH AVENUE SOUTH
KENT, WA 98032

Trylon
1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

SUBMITTALS

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D	10/18/2022	90% CD	ROS
0	11/16/2022	100% CD	MVF

CLIFF ABERNATHY
STATE OF WASHINGTON
11.22.22
52593
REGISTERED
PROFESSIONAL ENGINEER

PROJECT TITLE

SITE ID: TA48
FA#: 10102328

DOWNTOWN PUYALLUP

110 9TH AVENUE SOUTHWEST
PUYALLUP, WA 98371

EXISTING 65'-6"
STADIUM BUILDING

SHEET DESCRIPTION

ANTENNA LAYOUT

SHEET NO.

C-4.1

PRCTI20230195

EXISTING ANTENNA SCHEDULE

SECTOR	ANTENNA POSITION	ANTENNA MAKE/MODEL	RAD CENTER	AZIMUTH	M-TILT	E-TILT	RRH & TMA MAKE/MODEL	BOX/SQUID/TMAs	FEEDLINE	FEEDLINE LENGTH
ALPHA	#1	(E) COMMSCOPE – SBNHH-1D65C	60'-2"	115°	0°	2°/2°/2°/2°	(1) (E) B25 RRH4X30-4R	–	(6) 8/6 POWER TRUNKS (3) FIBER TRUNKS (4) 1-5/8" COAX	400'-0"
	#2	(E) KATHREIN-742-265	60'-10"	115°	0°	8°/8°/2°/2°	–	(2) (E) LGP21401		
	#3	(E) KATHREIN-80010892-V01	59'-9"	115°	0°	1.5°/1.5°/4°/4°/4°/4°/2.5°/2.5°/2.5°/2.5°	(1) (E) AIRSCALE RRH 4T4R B5 160W AHCA (1) (E) B66A RRH4X45-4R (1) (E) RRH4X25-WCS-4R	(3) (E) FC12-PC6-10E		
	#4	(E) KATHREIN-80010992	59'-9"	115°	0°	4°/4°/4°/4°	(1) (E) AIRSCALE DUAL RRH 4T4R B12/14 320W AHLBA	(3) (E) DC2-48-60-0-9E		
BETA	#1	(E) COMMSCOPE – SBNHH-1D65C	60'-2"	235°	0°	2°/2°/2°/2°	(1) (E) B25 RRH4X30-4R	–	(4) 1-5/8" COAX	340'-0"
	#2	(E) KATHREIN-80010892-V01	60'-10"	235°	0°	6°/6°/5°/5°	(1) (E) AIRSCALE RRH 4T4R B5 160W AHCA (1) (E) B66A RRH4X45-4R (1) (E) RRH4X25-WCS-4R	–		
	#3	(E) KATHREIN-742-265	59'-9"	235°	0°	4°/4°/2.5°/2.5°/2.5°/2.5°/2.5°/2.5°/2.5°/2.5°	–	(2) (E) LGP21401		
	#4	(E) KATHREIN-80010992	59'-9"	235°	0°	8°/8°/8°/8°	(1) (E) AIRSCALE DUAL RRH 4T4R B12/14 320W AHLBA	(3) (E) DC2-48-60-0-9E		
GAMMA	#1	(E) COMMSCOPE – SBNHH-1D65C	60'-2"	355°	0°	0°/0°/0°/0°	(1) (E) B25 RRH4X30-4R	–	(4) 1-5/8" COAX	280'-0"
	#2	(E) KATHREIN-80010892-V01	60'-10"	355°	0°	6°/6°/3°/3°	(1) (E) AIRSCALE RRH 4T4R B5 160W AHCA (1) (E) B66A RRH4X45-4R (1) (E) RRH4X25-WCS-4R	–		
	#3	(E) KATHREIN-742-265	59'-9"	355°	0°	1.5°/1.5°/2.5°/2.5°/2.5°/2.5°/2.5°/2.5°/2.5°/2.5°	–	(2) (E) LGP21401		
	#4	(E) KATHREIN-80010992	59'-9"	355°	0°	1°/1°/1°/1°	(1) (E) AIRSCALE DUAL RRH 4T4R B12/14 320W AHLBA	(3) (E) DC2-48-60-0-9E		

City of Puyallup
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EXISTING ANTENNA SCHEDULE

N.T.S.

1

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Network Solutions
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KENT, WA 98032

Trylon
1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	05/13/2022	90% CD	PSK
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D	10/18/2022	90% CD	ROS
0	11/16/2022	100% CD	MVF

CLIFF ABERNATHY
STATE OF WASHINGTON
11.22.22
52593
REGISTERED
PROFESSIONAL ENGINEER

PROJECT TITLE

SITE ID: TA48
FA#: 10102328

DOWNTOWN PUYALLUP

110 9TH AVENUE SOUTHWEST
PUYALLUP, WA 98371

EXISTING 65'-6"
STADIUM BUILDING

SHEET DESCRIPTION

ANTENNA SCHEDULE

SHEET NO.

C-5

PRCTI20230195

PROPOSED ANTENNA SCHEDULE

SECTOR	ANTENNA POSITION	ANTENNA MAKE/MODEL	RAD CENTER	AZIMUTH	M-TILT	E-TILT	RRH & TMA MAKE/MODEL	BOX/SQUID/TMAs	FEEDLINE	FEEDLINE LENGTH
ALPHA	#1	(N) CELLMAX – CMA-UBTULBULBHH-6517-17-21-21	60'-1"	115°	0°	4°/4°/4°/4°/ 2°/2°/2°/2°	(1) (E) AIRSCALE DUAL RRH 4T4R B12/14 320W AHLBA (1) (E) B25 RRH4X30-4R	(3) (E) DC2-48-60-0-9E	(E) (6) 8/6 POWER TRUNKS (E) (3) FIBER TRUNKS (E) (4) 1-5/8" COAX	400'-0"
	#2	–	–	–	–	–	–	–		
	#3	–	–	–	–	–	–	–		
	#4	(E) KATHREIN – 80010992	59'-9"	115°	0°	2°/2°/2°/2°/ 4°/4°/4°/4°/ 3°/3°/3°/3°/	(1) (E) AIRSCALE RRH 4T4R B5 160W AHCA (1) (E) B66A RRH4X45-4R (1) RRH4X25-WCS-4R	(3) (E) FC12-PC6-10E		
	#5	(N) NOKIA – AEQK+AEQU STACKED	AEQK 62'-11" AEQU 59'-6"	115°	0°	0°/0°/0°/0°	INTEGRATED	–		
BETA	#1	(N) CELLMAX – CMA-UBTULBULBHH-6517-17-21-21	60'-1"	235°	0°	8°/8°/8°/8°/ 2°/2°/2°/2°	(1) (E) AIRSCALE DUAL RRH 4T4R B12/14 320W AHLBA (1) (E) B25 RRH4X30-4R	(3) (E) DC2-48-60-0-9E	(E) (4) 1-5/8" COAX (N) (1) 6/6 DC TRUNK (1) 24 PAIR FIBER TRUNK	340'-0"
	#2	–	–	–	–	–	–	–		
	#3	–	–	–	–	–	–	–		
	#4	(E) KATHREIN – 80010992	59'-9"	235°	0°	4°/4°/4°/4°/ 2.5°/2.5°/2.5°/2.5° /8°/8°/8°/8°	(1) (E) AIRSCALE RRH 4T4R B5 160W AHCA (1) (E) B66A RRH4X45-4R (1) RRH4X25-WCS-4R	–		
	#5	(N) NOKIA – AEQK+AEQU STACKED	AEQK 62'-11" AEQU 59'-6"	235°	0°	0°/0°/0°/0°	INTEGRATED	(1) (N) DC6-48-60-0-1B-01		
GAMMA	#1	(N) NOKIA – AEQK+AEQU STACKED	AEQK 62'-11" AEQU 59'-6"	355°	0°	0°/0°/0°/0°	INTEGRATED	–	(E) (4) 1-5/8" COAX	280'-0"
	#2	–	–	–	–	–	–	–		
	#3	(N) CELLMAX – CMA-UBTULBULBHH-6517-17-21-21	60'-1"	355°	0°	2°/2°/2°/2°/ 1°/1°/1°/1°	(1) (E) AIRSCALE DUAL RRH 4T4R B12/14 320W AHLBA (1) (E) B25 RRH4X30-4R	(3) (E) DC2-48-60-0-9E		
	#4	(E) KATHREIN – 80010992	59'-9"	355°	0°	2°/2°/2°/2°/ 2.5°/2.5°/2.5°/2.5°/ 2.5°/2.5°/2.5°/2.5°	(1) (E) AIRSCALE RRH 4T4R B5 160W AHCA (1) (E) B66A RRH4X45-4R (1) RRH4X25-WCS-4R	–		
	#5	–	–	–	–	–	–	–		

City of Puyallup
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IRVING, TEXAS 75038

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CLIFF ABERNATHY
STATE OF WASHINGTON
52593
REGISTERED
PROFESSIONAL ENGINEER
11.22.22

PROJECT TITLE

SITE ID: TA48
FA#: 10102328

DOWNTOWN PUYALLUP

110 9TH AVENUE SOUTHWEST
PUYALLUP, WA 98371

EXISTING 65'-6"
STADIUM BUILDING

SHEET DESCRIPTION

ANTENNA SCHEDULE

SHEET NO.

C-5.1

PRCTI20230195

AEQK AirScale MAA 64T64R 192AE n77 200W

Preliminary Technical datasheet

Specification[1]	Details
Standard	3GPP n77 & FCC NR compliant
Band / Frequency range	3700~3980MHz
Max. supported modulation	256QAM
Number of TX/RX paths	64T / 64R
MIMO streams	16 per carrier (with eCPRI)
Instantaneous bandwidth IBW	200MHz; (280MHz in split mode)
Occupied bandwidth OBW	100MHz; (100MHz + 100MHz in split mode)
Total average EIRP	77.5 dBm
Max. output power per TRX	3.125 W / TRX (200 W total)
Effective Isotropic Sensitivity	-122 dBm
Dimensions	750 x 450 x 242 mm (H x W x D) 29.53 x 17.72 x 9.53 in
Weight	45kg w/o bracket 99.21 lbs
Supply voltage / Connector type	DC -40.5 V... -57V / 2 pole connector
Power consumption	750W typical (75% DL duty cycle, 30% RF load) 1050W max (75% DL duty cycle, 100% RF load)
Optical ports	2xSFP28, 9.8G CPRI or 10/25GE eCPRI
Other interfaces / Connector type	LMI / HDMI, RF monitor port / SMA, Control AISG, External Alarms / MDR26, status LEDs
Operational temperature range	-40C to +55C (without solar load)
Cooling	Natural convection cooling
Installation options	Pole, wall, with vertical adjustment of ±15°
Ingress / Surge protection	IP65/Class II 20KA
Supported RAT	NR

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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

AEQK

NOKIA

NOKIA AEQK ANTENNA DETAIL | N.T.S. | 1

AEQU AirScale MAA 64T64R 192AE n78 200W

Technical data (Preliminary) Redmond Lab – January 2022

Product Specifications	
Standard	3GPP/FCC, TDD
Supported RAT by HW	5G
Band / Frequency range	3450 - 3550 MHz
Max. supported modulation	256 QAM
Number of TX/RX paths	64T / 64R
MIMO streams	16
Instantaneous bandwidth IBW	100 MHz
Occupied bandwidth OBW	100 MHz
Total average EIRP	77.5dBm
Max. output power per TRX	3.125 W / TRX (200W total)
Dimensions / Volume	750 x 450 x 240 mm (H x W x D) / 71.7 l 29.53 x 17.72 x 9.45 in
Weight	45kg w/o bracket 99.21 lbs
Supply voltage / Connector type	DC -40.5 V... -57V / 2 pole connector
Power consumption	730 W (75% DL duty cycle, ETSI 24h average load)
Optical ports	2 x SFP28, 10/25GE eCPRI
Other interfaces / Connector type	AISG / RS-485, EAC (6 alarms + 1 control) / MDR26, RF Monitor Port/SMA, 4 status LEDs
Operational temperature range	-40 °C ... +55 °C
Cooling	Natural convection cooling
Installation options	Pole / Wall, ± 15° mechanical vertical tilt
Ingress / Surge protection	IP65 / Class II 20 kA

9

AirScale High Power Wide Band MAA benefits

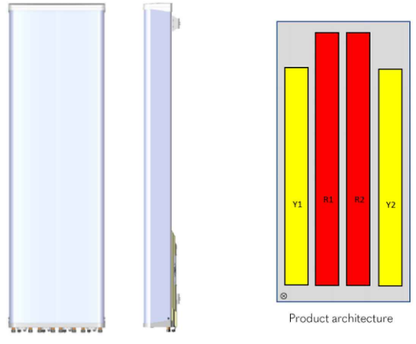
- 5G Adaptive Antenna System for optimized capacity and coverage
- Beamforming capable 64T64R with total 200W output power

AEQU 476085A

NOKIA

NOKIA AEQU ANTENNA DETAIL | N.T.S. | 2

NOT USED | N.T.S. | 3



Product architecture

Mechanical specification:	
Connectors	8 x 4.3 -10 female
Connector position	Bottom
Lightning protection	DC grounded
Height mm (inch)	2450 (96.5)
Width mm (inch)	690 (27.2)
Depth mm (inch)	196 (7.7)
Antenna weight kg (lb)	47 (104)

CMA–UBTULBULBHH–6517–17–21–21_DETAIL
SCALE: NTS

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

CMA–UBTULBULBHH–6517–17–21–21 DETAIL | N.T.S. | 4

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CLIFF ABERNATHY
STATE OF WASHINGTON
11.22.22
52593
REGISTERED
PROFESSIONAL ENGINEER

PROJECT TITLE

SITE ID: TA48
FA#: 10102328

DOWNTOWN PUYALLUP

110 9TH AVENUE SOUTHWEST
PUYALLUP, WA 98371

EXISTING 65'-6"
STADIUM BUILDING

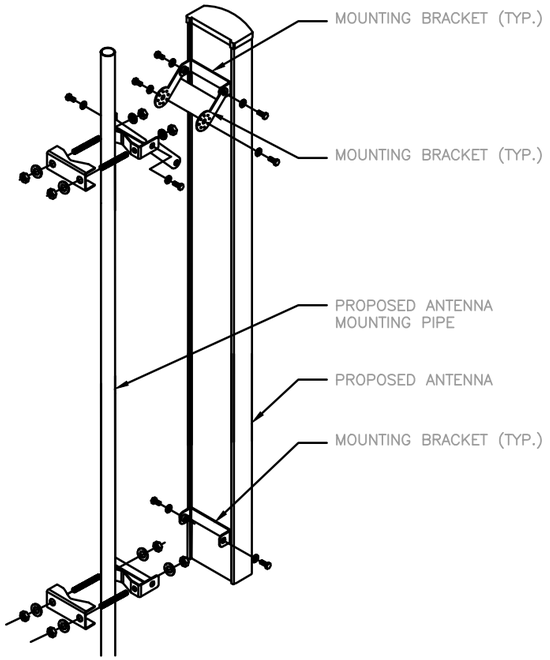
SHEET DESCRIPTION

DETAILS

SHEET NO.

C-6

PRCTI20230195



ANTENNA MOUNTING DETAIL

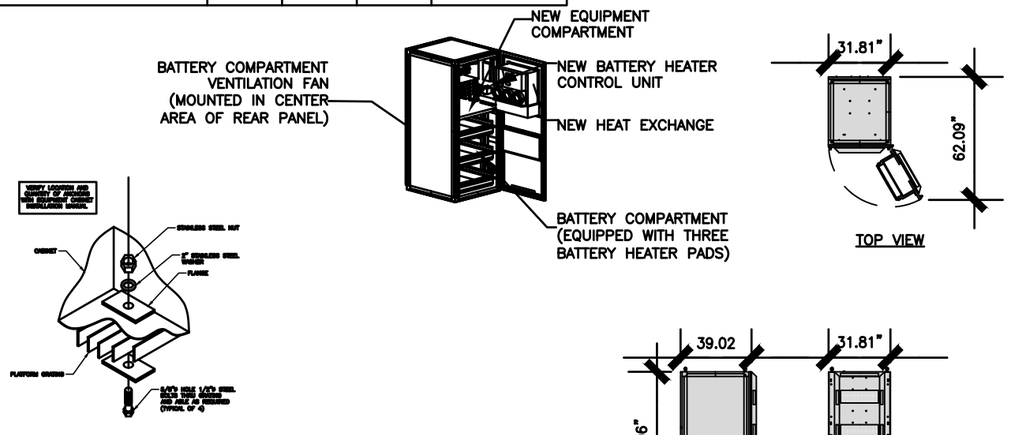
N.T.S. 1

SIZE AND WEIGHT TABLE

POWER PLANT	WIDTH	DEPTH	HEIGHT	WEIGHT
EMERSON/NETSURE 512 OUTDOOR POWER CABINET	31.81"	39.02"	72.5"	752 LBS.
EMERSON/NETSURE 512 OUTDOOR W/BATTERIES				2206 LBS.

CLEARANCE

CLEARANCE	FRONT	REAR	SIDES
EMERSON/NETSURE 512 OUTDOOR POWER CABINET	36"	6"	2"

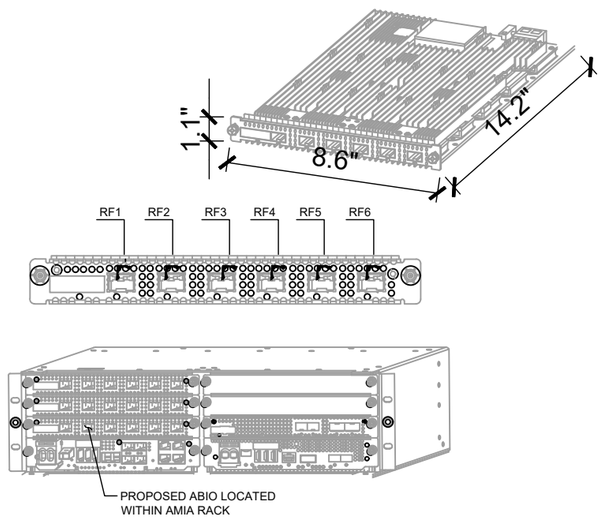


EMERSON NETSURE 512 POWER PLANT

EMERSON NETSURE 512 POWER PLANT DETAIL

N.T.S. 2

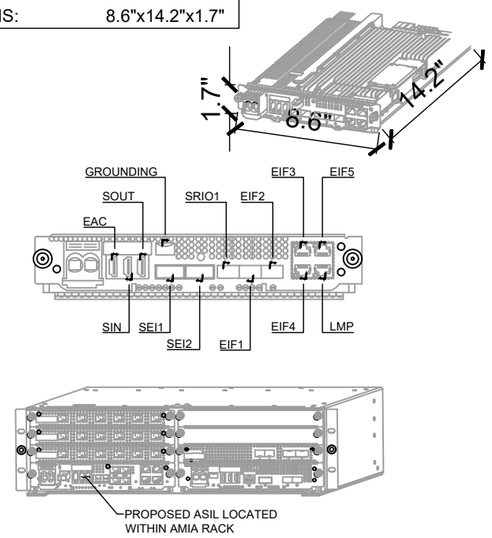
MANUFACTURER:	NOKIA
MODEL:	ABIO
WEIGHT:	4.6 LBS
DIMENSIONS:	8.6"x14.2"x1.1"



ABIO BASEBAND DETAIL

N.T.S. 3

MANUFACTURER:	NOKIA
MODEL:	ASIL
WEIGHT:	6.4 LBS
DIMENSIONS:	8.6"x14.2"x1.7"



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

ASIL BASEBAND DETAIL

N.T.S. 4

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CLIFF ABERNATHY
STATE OF WASHINGTON
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SITE ID: TA48
FA#: 10102328

DOWNTOWN PUYALLUP

110 9TH AVENUE SOUTHWEST
PUYALLUP, WA 98371

EXISTING 65'-6"
STADIUM BUILDING

SHEET DESCRIPTION

DETAILS

SHEET NO.

C-7

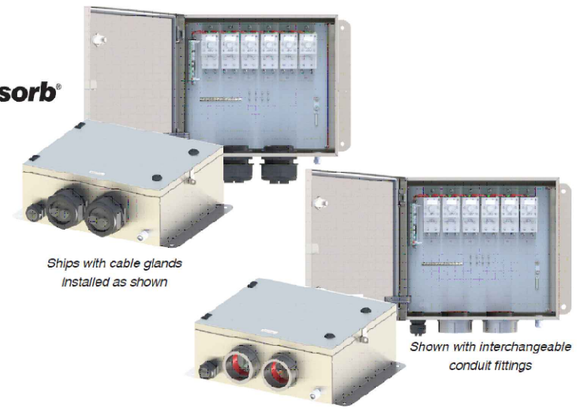
DC Surge Protection Solutions - Outdoor Rated

DC6-48-60-0-1B-01

Overvoltage Protection and Cable Management Solution

PRCTI20230195

powered by **Strikesorb®**



Ships with cable glands installed as shown

Shown with interchangeable conduit fittings

Electrical		
Model Number		DC6-48-60-0-1B-01
CEQ / ANT Number		CEQ.10279
Number of Circuits Protected		6
Surge Protective Device (SPD) Type per UL 1449 4th Edition		Type 2
Surge Protection Class as per IEC 61643-11		Class I
Nominal Operating DC Voltage [U_p]		48 V
Nominal Discharge Current [I_n] per UL 1449 3rd Edition		20 kA 8/20 µs
Maximum Surge Current [I_{max}] per IEC 61643-11		60 kA 8/20 µs
Maximum Impulse (Lightning) Current [I_{imp}] per IEC 61643-11		5 kA 10/350 µs
Maximum Continuous Operating DC Voltage [U_c] (MCOV)		75 VDC
Voltage Protection Level [U_p] per IEC 61643-11		300 V
Voltage Protection Rating (VPR)		700 V
Suppression Technology		MOV
Strikesorb Module Type 2CA (UL 1449 4th edition)		30-V1-HV
Protection Modes:	Normal Mode	-48V to Return
	Common Mode	Return to Ground
Mechanical		
Connection Terminal (Alarm) Method		Form C Hardwired, #22 to #12 AWG [0.34 to 4 mm²]
Connection Terminal (Suppression) Method		Compression lug 2 hole, #10, 5/8 pitch, 12-4 AWG [3.31-21 mm²]
Connection Terminal (Trunk Ground/Drain) Method		Compression lug 2 hole, #10, 5/8 pitch, 12-4 AWG [3.31-21 mm²]
Connection Terminal (Jumper Ground/Drain) Method		Terminal strip mechanical lug #4-14 AWG
Operating Temperature (°C)		-40° C to +100° C
Storage Temperature (°C)		-70° C to +80° C
Cold Temperature Cycling IEC 61300-2-22		-30° C to +60° C 200 hrs @5 PSI
Resistance to Aggressive Materials CEI IEC 61073-2		Including Acids and Bases
UV Protection ISO 4892-2 Method A		Xenon-Arc 2160 hrs
Enclosure Type		Outdoor - NEMA 4 Rated
Enclosure Dimensions (L x W x H)		15.22" x 17.74" x 6.37" [386.6 x 450.7 x 161.8 mm]
Weight		38.0 lbs [17.24 kg]
Combined Wind Loading	Sustained	150 mph Sustained: 135.3 lbs [601 N]
	Gust	195 mph Gust: 228.6 lbs [1016 N]
Additional Features		
Cable glands installed		2 each - M75 Cable Glands with #6 and #8 AWG inserts
Conduit fittings included in kit		2 each - 2 1/2" conduit fittings with PVC adapters
Standards Compliance & Certifications		
Strikesorb modules are compliant to the following Surge Protection Device Standards:		
Standards:		UL 1449 4th Edition: 2011, IEC 61643-11: 2011, EN 61643-11: 2012, IEEE C62.11: 2005, IEEE C62.41: 2002, IEEE C62.45: 2002, NEMA-LS-1
Certifications:		UL, VDE, CE

DC6-48-60-0-1B-01 DETAIL | N.T.S. | 1

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City of Puyallup
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Engineering	Public Works
Fire	Traffic

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STATE OF WASHINGTON
11.22.22
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PROJECT TITLE

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DOWNTOWN PUYALLUP

110 9TH AVENUE SOUTHWEST
PUYALLUP, WA 98371

EXISTING 65'-6"
STADIUM BUILDING

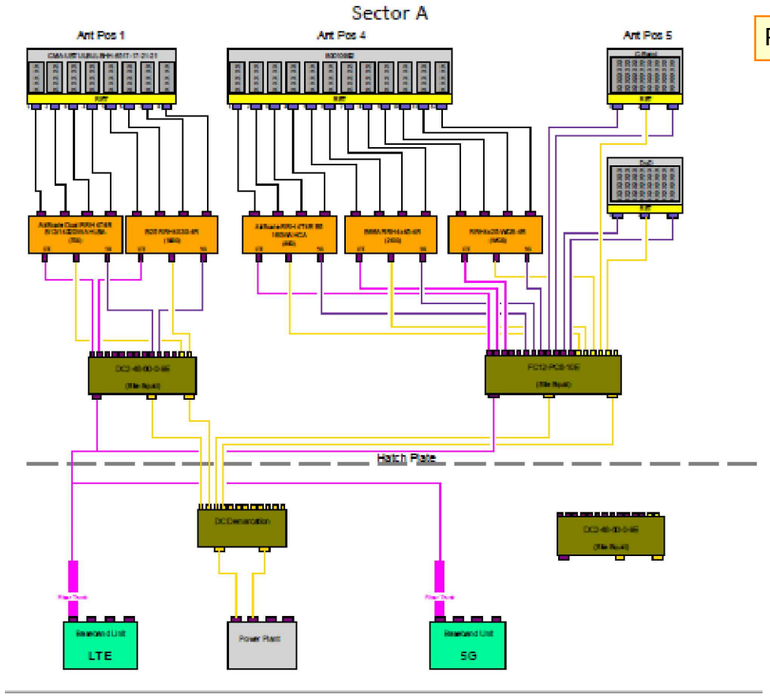
SHEET DESCRIPTION

DETAILS

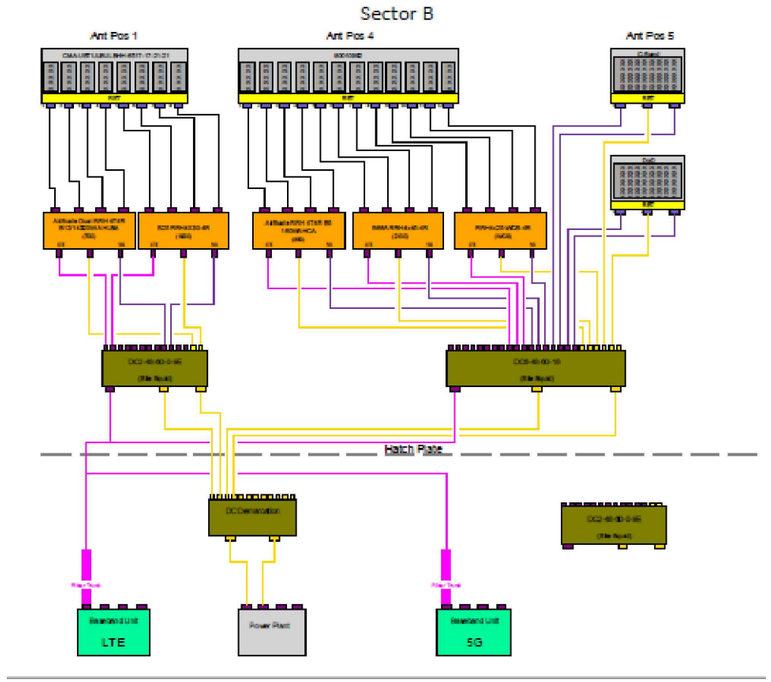
SHEET NO.

C-8

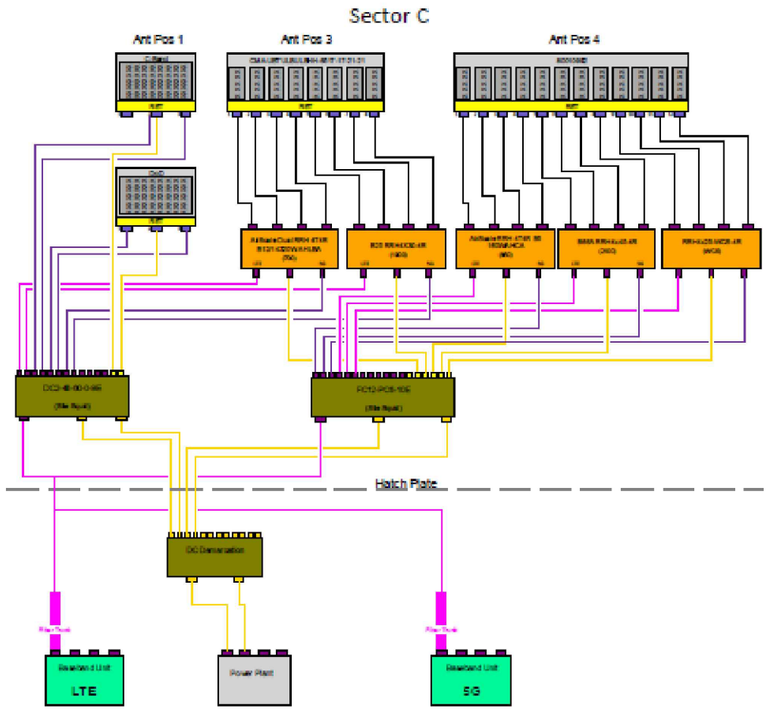
PRCTI20230195



RF PLUMBING DIAGRAM - ALPHA | N.T.S. | 1



RF PLUMBING DIAGRAM - BETA | N.T.S. | 2



RF PLUMBING DIAGRAM - GAMMA | N.T.S. | 3

City of Puyallup
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DOWNTOWN PUYALLUP

110 9TH AVENUE SOUTHWEST
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EXISTING 65'-6"
STADIUM BUILDING

SHEET DESCRIPTION

RF PLUMBING DIAGRAM

SHEET NO.

RF-1

GROUNDING PLAN LEGEND:

- EXISTING GROUND WIRE
- NEW GROUND WIRE
- EXOTHERMIC WELD
- MECHANICAL CONNECTION
- COPPER GROUND ROD
- GROUND ROD W/ TEST WELL

GENERAL NOTES:

1. CONTRACTOR SHALL HAVE A COMPLETE UNDERSTANDING OF THE CONTENTS OF AT&T STANDARD TP-76416.
2. ALL GROUNDING CONDUCTORS SHALL PROVIDE A STRAIGHT DOWNWARD PATH TO GROUND WITH GRADUAL BEND AS REQUIRED. GROUND WIRES SHALL NOT BE LOOPED OR SHARPLY BENT.
3. KOPR-SHIELD ANTI-OXIDATION COMPOUND SHALL BE USED ON ALL COMPRESSION GROUNDING CONNECTIONS.
4. ALL EXOTHERMIC CONNECTIONS SHALL BE INSTALLED UTILIZING THE PROPER CONNECTION/MOLD AND MATERIALS FOR THE PARTICULAR APPLICATION.
5. ALL BOLTED GROUNDING CONNECTIONS SHALL BE INSTALLED WITH AN EXTERNAL TOOTHED LOCK WASHER. GROUNDING BUS BARS MAY HAVE PRE-PUNCHED HOLES OR TAPPED HOLES. ALL HARDWARE SHALL BE SECURITY TORQUE HARDWARE 3/8" STAINLESS STEEL.
6. EXTERNAL GROUNDING CONDUCTOR SHALL NOT BE INSTALLED OR ROUTED THROUGH HOLES IN ANY METAL OBJECTS, CONDUITS, OR SUPPORTS TO PRECLUDE ESTABLISHING A MAGNETIC CHOKE POINT.
7. PLASTIC CLIPS SHALL BE USED TO FASTEN AND SUPPORT GROUNDING CONDUCTORS. FERROUS METAL CLIPS WHICH COMPLETELY SURROUND THE GROUNDING CONDUCTOR SHALL NOT BE USED.
8. CONTRACTOR SHALL REPAIR/PLACE EXISTING GROUNDING SYSTEM COMPONENTS DAMAGED DURING CONSTRUCTION AT THE CONTRACTORS EXPENSE.
9. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS.
10. GROUND ALL ANTENNA BASES, FRAMES, CABLE RUNS, AND OTHER METALLIC COMPONENTS USING GROUND WIRES AND CONNECT TO SURFACE MOUNTED BUS BARS. FOLLOW ANTENNA AND BTS MANUFACTURER'S PRACTICES FOR GROUNDING REQUIREMENTS. GROUND COAX SHIELD AT BOTH ENDS AND EXIT FROM TOWER OR POLE USING MANUFACTURERS PRACTICES.
11. ALL WIRES SHALL BE COPPER THHN/THWN. ALL GROUND WIRE SHALL BE GREEN INSULATED WIRE ABOVE GROUND.
12. CONTRACTOR TO VERIFY AND TEST GROUND SOURCE, GROUNDING AND OTHER OPERATIONAL TESTING WILL BE WITNESSED BY WIRELESS REPRESENTATIVE.
13. REFER TO DIVISION 16 GENERAL ELECTRIC; GENERAL ELECTRICAL PROVISION AND COMPLY WITH ALL REQUIREMENTS OF GROUNDING STANDARDS.
14. ELECTRICAL CONTRACTOR TO PROVIDE DETAILED DESIGN OF GROUNDING SYSTEM, AND RECEIVE APPROVAL OF DESIGN BY AUTHORIZED WIRELESS REPRESENTATIVE, PRIOR TO INSTALLATION OF GROUNDING SYSTEM. PHOTO DOCUMENT ALL CADWELDS AND GROUND RINGS.
15. NOTIFY CONSTRUCTION MANAGER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.
16. USE PANI SCHEME FOR LOADING GROUNDS ON MGB AS DISCUSSED IN NSTD 119, 33 & 36.

GROUND ROD NOTES:

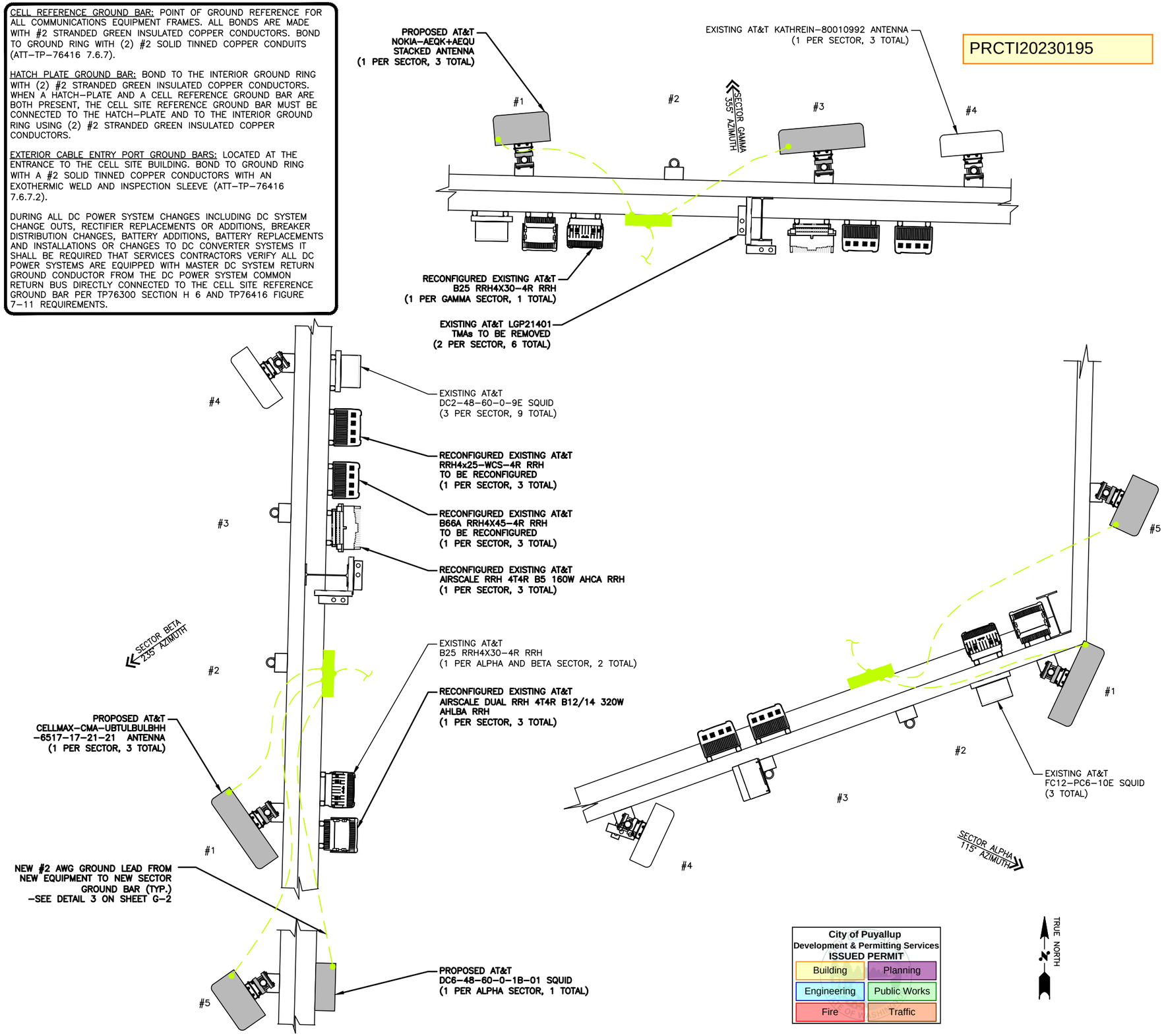
1. ELECTRICAL CONTRACTOR SHALL ORDER GROUND RESISTANCE TESTING ONCE THE GROUND SYSTEM HAS BEEN INSTALLED; A QUALIFIED INDIVIDUAL, UTILIZING THE FALL OF POTENTIAL METHOD, SHOULD PERFORM THE TEST. THE REPORT WILL SHOW THE LOCATION OF THE TEST AND CONTAIN NO LESS THAN 9 TEST POINTS ALONG THE TESTING LINE, GRAPHED OUT TO SHOW THE PLATEAU.
2. POINT GROUND TEST OR 3 POINT 62% TESTS WILL NOT BE ACCEPTED AS ALTERNATIVES TO THE AFORE MENTIONED GROUND TESTS. TEST SHALL BE PERFORMED WHILE THE COUNTERPOISE IS ISOLATED FROM THE A/C SYSTEM GRIDS AND EXISTING COMMUNICATIONS FACILITY.

CELL REFERENCE GROUND BAR: POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO GROUND RING WITH (2) #2 SOLID TINNED COPPER CONDUITS (ATT-TP-76416 7.6.7).

HATCH PLATE GROUND BAR: BOND TO THE INTERIOR GROUND RING WITH (2) #2 STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CELL SITE REFERENCE GROUND BAR MUST BE CONNECTED TO THE HATCH-PLATE AND TO THE INTERIOR GROUND RING USING (2) #2 STRANDED GREEN INSULATED COPPER CONDUCTORS.

EXTERIOR CABLE ENTRY PORT GROUND BARS: LOCATED AT THE ENTRANCE TO THE CELL SITE BUILDING. BOND TO GROUND RING WITH A #2 SOLID TINNED COPPER CONDUCTORS WITH AN EXOTHERMIC WELD AND INSPECTION SLEEVE (ATT-TP-76416 7.6.7.2).

DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICES CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR PER TP76300 SECTION H 6 AND TP76416 FIGURE 7-11 REQUIREMENTS.



City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
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Fire	Traffic

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AT&T

MasTec Network Solutions
22263 68TH AVENUE SOUTH
KENT, WA 98032

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1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038

SUBMITTALS

REV	DATE	DESCRIPTION	BY
A	05/13/2022	90% CD	PSK
B	06/28/2022	90% CD	JAC
C	09/17/2022	90% CD	GOP
D	10/18/2022	90% CD	ROS
0	11/16/2022	100% CD	MVF

CLIFF ABERNATHY
STATE OF WASHINGTON
11.22.22
52593
REGISTERED
PROFESSIONAL ENGINEER

PROJECT TITLE

SITE ID: TA48
FA#: 10102328

DOWNTOWN PUYALLUP

110 9TH AVENUE SOUTHWEST
PUYALLUP, WA 98371

EXISTING 65'-6"
STADIUM BUILDING

SHEET DESCRIPTION

GROUNDING DIAGRAM

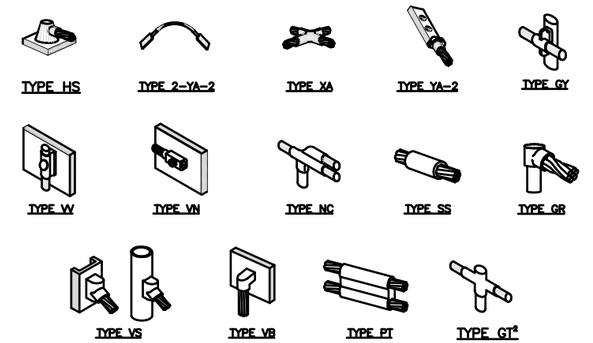
SHEET NO.

G-1

GROUNDING DIAGRAM

N.T.S.

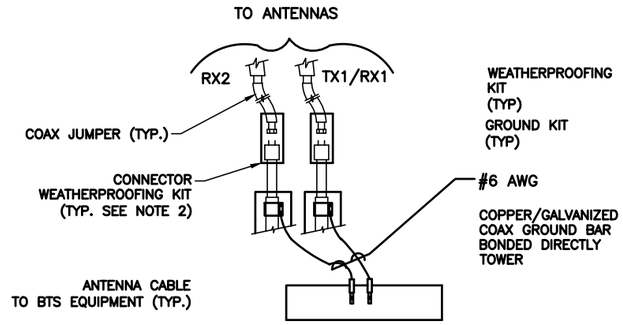
1



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.

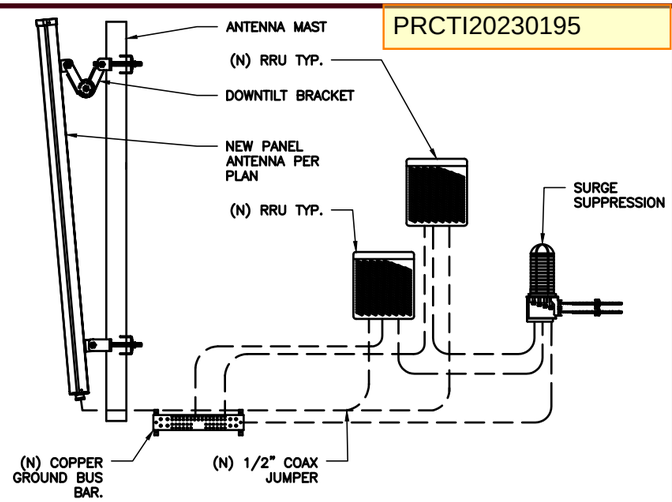
CADWELD GROUNDING CONNECTIONS | N.T.S. | 1



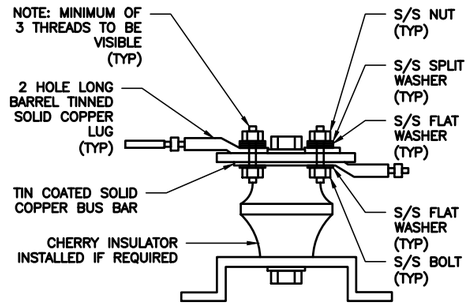
NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

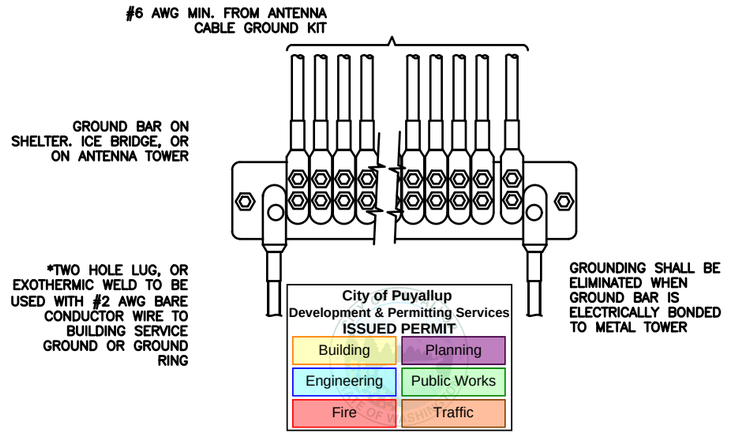
GROUND CABLE CONNECTION | N.T.S. | 2



GROUDING DETAIL | N.T.S. | 3

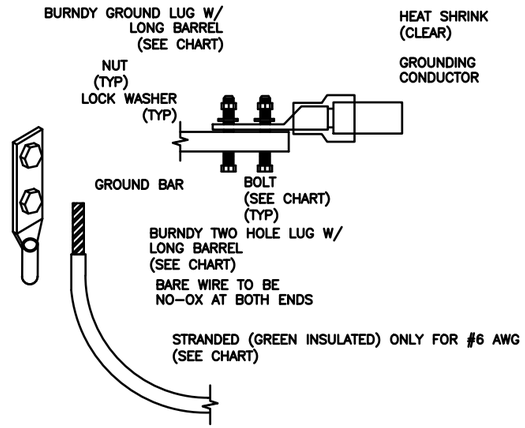


GROUNDING WIRE CONNECTION | N.T.S. | 4



GROUNDWIRE INSTALLATION | N.T.S. | 5

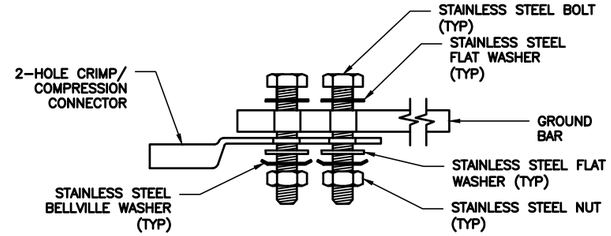
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT



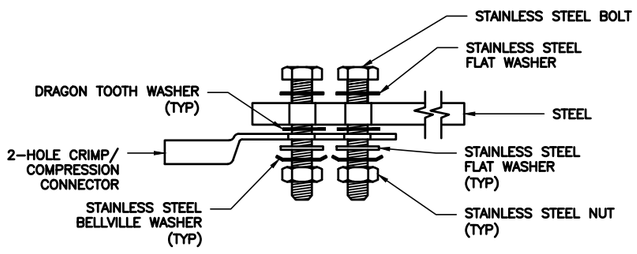
NOTES:

1. ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER,GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

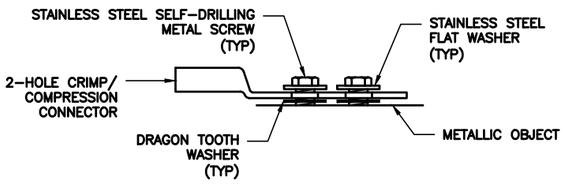
MECHANICAL LUG CONNECTION | N.T.S. | 6



SINGLE CONNECTOR AT GROUND BARS



SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

HARDWARE DETAIL FOR EXTERIOR CONNECTIONS | N.T.S. | 7

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