

Approval of submitted plans is not an approval of omissions or oversights by this office or noncompliance 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.

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building

Planning

Engineering

Public Works

Fire

Traffic



Received
Development Services
June 16, 2021
CITY OF PUYALLUP

VERIZON SITE NUMBER: 221424
VERIZON SITE NAME: BRADLEY PARK - A
SITE TYPE: MONOPOLE
TOWER HEIGHT: 120'-0"

BUSINESS UNIT #: 880329
SITE ADDRESS: 3150 S MERIDIAN
PUYALLUP, WA 98373
COUNTY: PIERCE
JURISDICTION: CITY OF PUYALLUP, WA

VERIZON SUB 6-GHZ

SITE INFORMATION

CROWN CASTLE USA INC.
SITE NAME:
SITE ADDRESS:

COUNTY:
MAP/PARCEL #:
AREA OF CONSTRUCTION:
LATITUDE:
LONGITUDE:
LAT/LONG TYPE:
GROUND ELEVATION:
CURRENT ZONING:
JURISDICTION:
OCCUPANCY CLASSIFICATION:
TYPE OF CONSTRUCTION:
A.D.A. COMPLIANCE:

SOUTH HILL MALL

3150 S MERIDIAN
PUYALLUP, WA 98373
PIERCE
04190640086
EXISTING
47°09'43.5"N
-122°11'40.0"W
NAD83
442.91 FT
TBD
CITY OF PUYALLUP, WA
U
FACILITY IS UNMANNED AND NOT FOR
HUMAN HABITATION
WASHINGTON STATE DOT

CROWN CASTLE USA, INC.
2000 CORPORATE DRIVE
CANONSBURG, PA 15317

VERIZON WIRELESS
3245 158TH AVENUE MS 231
BELLÉVUE, WA 98008

TBD

TBD

PROJECT TEAM

A&E FIRM:

GROWN CASTLE
USA INC. DISTRICT
CONTACTS:

1100 E WOODFIELD ROAD, SUITE 500
SCHAMBERG, ILLINOIS 60173
MILEN DIMITROV
TEL: 847-908-8439
EMAIL: mdimitrov@fullertonengineering.com

1505 WESTLAKE AVENUE NORTH, SUITE 800
SEATTLE, WA 98109

JESSICA DORRIS - PROJECT MANAGER
JESSICA.DORRIS@CROWNCastle.COM
CODY CRANK - CONSTRUCTION MANAGER
CODY.CRANK@CROWNCastle.COM

DRAWING INDEX

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ATTACHED	MOUNT MODIFICATION DESIGN

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11X17. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE WIRELESS FACILITY.

TOWER SCOPE OF WORK:

- REMOVE (9) ANTENNAS
- REMOVE (6) RRHs
- REMOVE (2) HYBRID
- REMOVE (2) OVP
- INSTALL (9) ANTENNAS
- INSTALL (3) RRHs
- INSTALL (2) OVP
- INSTALL (2) HYBRID CABLE

GROUND SCOPE OF WORK:

- REMOVE (2) OVP
- INSTALL (2) OVP

INSTALL MOUNT MODIFICATION PER MOUNT MODIFICATION DESIGNED BY TOWER ENGINEERING SOLUTIONS DATED 02/25/2021

NOTE:
PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER

APPROVALS

VERIZON SIGNATURE BLOCK

APPROVAL	SIGNATURE	DATE
SITE ACQUISITION		
CONSTRUCTION		
RADIO		
MICROWAVE		
TELCO		
EQUIPMENT		
PROJECT ADMINISTRATOR		
WO ADMINISTRATOR		

CROWN CASTLE USA INC. SIGNATURE BLOCK

APPROVAL	SIGNATURE	DATE
SITE ACQUISITION		
PLANNER		
CONSTRUCTION		
PROJECT MANAGER		
UTILITY MANAGER		
LANDLORD		

CONTRACTOR PMI REQUIREMENTS

PMI ACCESSED AT
SMART TOOL VENDOR
PROJECT NUMBER
V&W LOCATION CODE (PSLC)

https://pmi.vswsmart.com

10049216
279393

*** PMI AND REQUIRÈMENTS ALSO EMBÈDDED IN MOUNT ANALYSIS REPORT

MOUNT MODIFICATION REQUIRED

Y

V&W APPROVED SMART KIT VENDORS

RÉFÈR TO MOUNT MODIFICATION DRAWINGS PAGE FOR V&W SMART KIT APPROVED VENDORS

LOCATION MAP

DRIVING DIRECTIONS FROM PIERCE COUNTY AIRPORT - THUN FIELD (16915 103RD AVE CT E, PUYALLUP, WA 98374, UNITED STATES):
HEAD WEST ON 168TH ST E TOWARD MERIDIAN AVE E, TURN RIGHT AT THE 1ST CROSS STREET ONTO WA-161 N/MERIDIAN AVE E, TURN RIGHT ONTO S MERIDIAN, TURN LEFT ONTO 30TH AVE SW, TURN LEFT

APPLICABLE CODES/REFERENCE DOCUMENTS

ALL WORK SHALL BE PERFORMED AND MATERIALS 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:

CODE TYPE	CODE
BUILDING	2018 IBC W/ W.A.C. AMENDMENTS
MECHANICAL	2018 IMC W/ W.A.C. AMENDMENTS
ELECTRICAL	2020 NEC W/ W.A.C. AMENDMENTS

RÉFÈRÈNCE DOCUMENTS:

STRUCTURAL ANALYSIS:	BY OTHERS
DATED:	03/31/2021
MOUNT ANALYSIS:	TOWER ENGINEERING SOLUTIONS
DATED:	12/01/2020
RFDs REVISION:	1
DATED:	12/01/2020
ORDER ID:	540457
REVISION:	0

CALL WASHINGTON ONE CALL
(800) 424-5555
CALL 3 WORKING DAYS
BEFORE YOU DIG

JURISDICTIONAL APPROVAL:

Reviewed for Building
Code Compliance

By David Leahy

Building Permit No.

B-21-0444

Date of Approval

6/24/2021

verizon

3245 158TH AVENUE MS 231
BELLÉVUE, WA 98008

CROWN CASTLE

1505 WESTLAKE AVENUE NORTH, SUITE 800
SEATTLE, WA 98109

FULLERTON

ENGINEERING - DESIGN

1100 E WOODFIELD RD, STE 500, SCHAMBERG, IL 60173
CORA 4143

VERIZON SITE NUMBER: 221424

BU #: 880329
SOUTH HILL MALL
3150 S MERIDIAN
PUYALLUP, WA 98373
EXISTING 120'-0" MONOPOLE
2021.0060.0074

ISSUED FOR:

REV	DATE	DESIGN	DESCRIPTION	DESIGN
A	03/25/2021	MEC	PRELIMINARY	CJ
B	06/25/2021	MEAN	CONSTRUCTION	CJ

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER:

T-1

REVISION:

A

THE APPROVED CONSTRUCTION PLANS AND ALL DOCUMENTS MUST BE POSTED ON THE JOB AT ALL INSPECTIONS IN A VISIBLE AND READILY ACCESSIBLE LOCATION.

B-21-0444

CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:

- NOTICE TO PROCEED-- NO WORK SHALL COMMENCE PRIOR TO CROWN CASTLE USA INC. WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER, PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN CASTLE USA INC. NOC AT 800-788-7011 & THE CROWN CASTLE USA INC. CONSTRUCTION MANAGER.
- LOOK UP -- CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENT: THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE USE OF THE WIRE ROPE, BEARING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
- 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 ON-SITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
- 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 CROWN CASTLE USA INC. STANDARD CED-ST-10293, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORT STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA-322 (LATEST EDITION).
- ALL SITE WORK TO COMPLY WITH OAS-STD-10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE," CED-ST-10294 "STANDARD FOR INSTALLATION OF MOUNTS AND APPURTENANCES," AND LATEST VERSION OF ANSI/TIA-1019-A-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS." IF THE SPECIFIED EQUIPMENT CANNOT BE NOT INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- 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, 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, COUNTY, STATE, AND FEDERAL LAWS, ORDINANCES, AND APPLICABLE REGULATIONS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION, ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE REMOVED FOR THE PROPER DEPTH FOR THE PROPER DEPTH OF THE WORK. SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERIS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING AND SIGNAGE TO ALL WORKERS INVOLVED IN THE WORK. NOT LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ERECTION SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
- ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
- CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT ALL TIMES. COMPLETION OF THE WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. RUBBER STAMPS AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- THE 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 THE CONTRACTOR, TOWER OWNERS, CROWN CASTLE USA INC., AND/OR LOCAL UTILITIES.
- 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 AREAS.
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
- THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- 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 GRADE AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
- 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.
- 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.
- 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.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION, TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
- 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.

GREENFIELD GROUNDING NOTES:

- ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GESS'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER GROUNDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
- THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL 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.
- THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SPECIFYING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE EARTH RESISTANCE TESTING RESULTS.
- METAL CONDUIT AND TRAY SHALL BE GROUNDING AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDED FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
- ALL 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 ITS EQUIPMENT.
- 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.
- 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.
- ALL EXTERIOR GROUNDING CONNECTIONS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
- ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
- EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
- COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
- ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
- APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
- MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES, ETC. SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- BOND ALL METALLIC OBJECTS WITHIN 6 FT. OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
- GROUND CONDUIT USED FOR THE FACILITY GROUNDING PROTECTION SYSTEM SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RACEWAY ABOVE 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.
- GROUND CONDUITS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN A 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).
- 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).

GENERAL NOTES:

- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION
CARRIER: VERIZON
TOWER OWNER: CROWN CASTLE USA INC.
- 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.
- 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.
- 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.
- 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.
- 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 CROWN CASTLE.
- 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, COUNTY, STATE, AND FEDERAL LAWS, ORDINANCES, AND APPLICABLE REGULATIONS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CANNOT BE NOT INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND CROWN CASTLE PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- CONTRACTOR IS TO PERFORM A SITE INVESTIGATION AND IS TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELLER AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELLER, AND GROUNDING PLAN DRAWINGS.
- 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 CROWN CASTLE USA INC.
- 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.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION, TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND ALL APPLICABLE LOCAL, STATE, AND FEDERAL 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, COUNTY, STATE, AND FEDERAL LAWS, ORDINANCES, AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90° AT TIME OF PLACEMENT.
- CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADJUTANTS. AMOUNT OF AIR ENTRAINMENT SHALL BE DETERMINED BY THE ENGINEER OF RECORD (VERY HEAVY). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.
- ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615, ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A184. ALL SPICES SHALL BE CLASS "B" TENSION SPICES, UNLESS NOTED OTHERWISE, ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
3 BARS AND SMALLER..... 40 ksi
4 BARS AND LARGER..... 60 ksi
6. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL, UNLESS SHOWN OTHERWISE ON DRAWINGS:
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH..... 3"
CONCRETE EXPOSED TO EARTH OR WEATHER:
6 BARS AND LARGER..... 1-1/2"
5 BARS AND SMALLER..... 1-1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
6 BARS AND LARGER..... 3/4"
SLAB AND WALLS..... 1-1/2"
BEAMS AND COLUMNS..... 1-1/2"
- A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
- CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
- WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
- ALL EQUIPMENT SHALL BEAR THE UL LISTED UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE.
- ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT AVAILABLE TO WHICH THEY ARE SUBJECTED, 22,000 AC MINIMUM, VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTEE CODE PRE THE GOVERNING JURISDICTION.
- 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.
- 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).
- PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
- ALL THE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- ALL POWER AND EQUIPMENT GROUND WIRING IN TURNING 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.
- 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.
- POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING FOR IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE C CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- ALL POWER AND CONTROL WIRING SHALL BE CRAMP-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).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
- ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- ALL POWER AND CONTROL WIRING SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
- WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECIMATE WIREWAY).
- SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
- 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 WALLS 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 OR INSIDE AND GALVANIZED MALLEABLE IRON LOCKS AND GALVANIZED MALLEABLE IRON 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.
- 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.
- 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.
- THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC. BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC. BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC. BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "VERIZON".
- ALL EMPT/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

CONDUCTOR COLOR CODE

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

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 LUGS
BLUE	POTABLE WATER
PURPLE	RECLAIMED WATER, IRRIGATION, AND SLURRY LINES
GREEN	SEWERS AND DRAIN LINES

ABBREVIATIONS:

ANT	ANTENNA
EXT	EXISTING
FI	FACILITY INTERFACE FRAME
GEN	GENERATOR
GSM	GLOBAL POSITIONING SYSTEM
GSN	GLOBAL SYSTEM FOR MOBILE
LTE	LONG TERM EVOLUTION
MGB	MASTER GROUND
MW	MICROWAVE
NEW	NEW
NEC	NATIONAL ELECTRIC CODE
(P)	PROPOSED
PL	POWER PLANT
QTY	QUANTITY
REC	RECIPIENT
RES	RADIO BASE STATION
RET	REMOTE ELECTRIC TLT
RFD	RADIO FREQUENCY DATA SHEET
RRT	REMOTE RADIO HEAD
RRO	REMOTE RADIO UNIT
SMU	SMART INTEGRATED DEVICE
SND	TOWER MOUNTED AMPLIFIER
TYP	TYPICAL
UNIS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
WFS	WORK POINT

JURISDICTIONAL APPROVAL:

verizon

3245 158TH AVENUE MS 231
BELLEVUE, WA 98008

CROWN CASTLE

1505 WESTLAKE AVENUE NORTH, SUITE 800
SEATTLE, WA 98109

FULLERTON

ENGINEERING & DESIGN

1100 E. WOODFIELD RD, STE 500, SCHALMBURG, IL 60173
COAR 4143

VERIZON SITE NUMBER: 221424

BU #: 880329

SOUTH HILL MALL

3150 S MERIDIAN

PUYALLUP, WA 98373

EXISTING 120'-0" MONOPOLE

2021.0660.0074

ISSUED FOR:

REV	DATE	DESCN	DESCRIPTION	DISC/QTY
A	01/25/2021	DMC	PRELIMINARY	CJ
B	04/25/2021	MAN	CONSTRUCTION	CJ



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: T-2 REVISION: A

B-21-0444

SITE PLAN DISCLAIMER:
PROPERTY LINES AND STRUCTURES HAVE BEEN DIGITIZED FROM PREVIOUS PLAN SETS. CROWN CASTLE USA INC. HAS NOT COMPLETED A SITE SURVEY AND THEREFORE MAKES NO CLAIMS AS TO THE ACCURACY OF INFORMATION DEPICTED ON THIS SHEET.

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BELLEVUE, WA 98008

CROWN CASTLE
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SEATTLE, WA 98109

FULLERTON
ENGINEERING
1100 E. WOODFIELD RD, STE 500, SCHAMBURG, IL 60173
COA# 4143

VERIZON SITE NUMBER: 221424

BU #: 880329
SOUTH HILL MALL
3150 S MERIDIAN
PUYALLUP, WA 98373
EXISTING 120'-0" MONOPOLE
2021.0060.0074

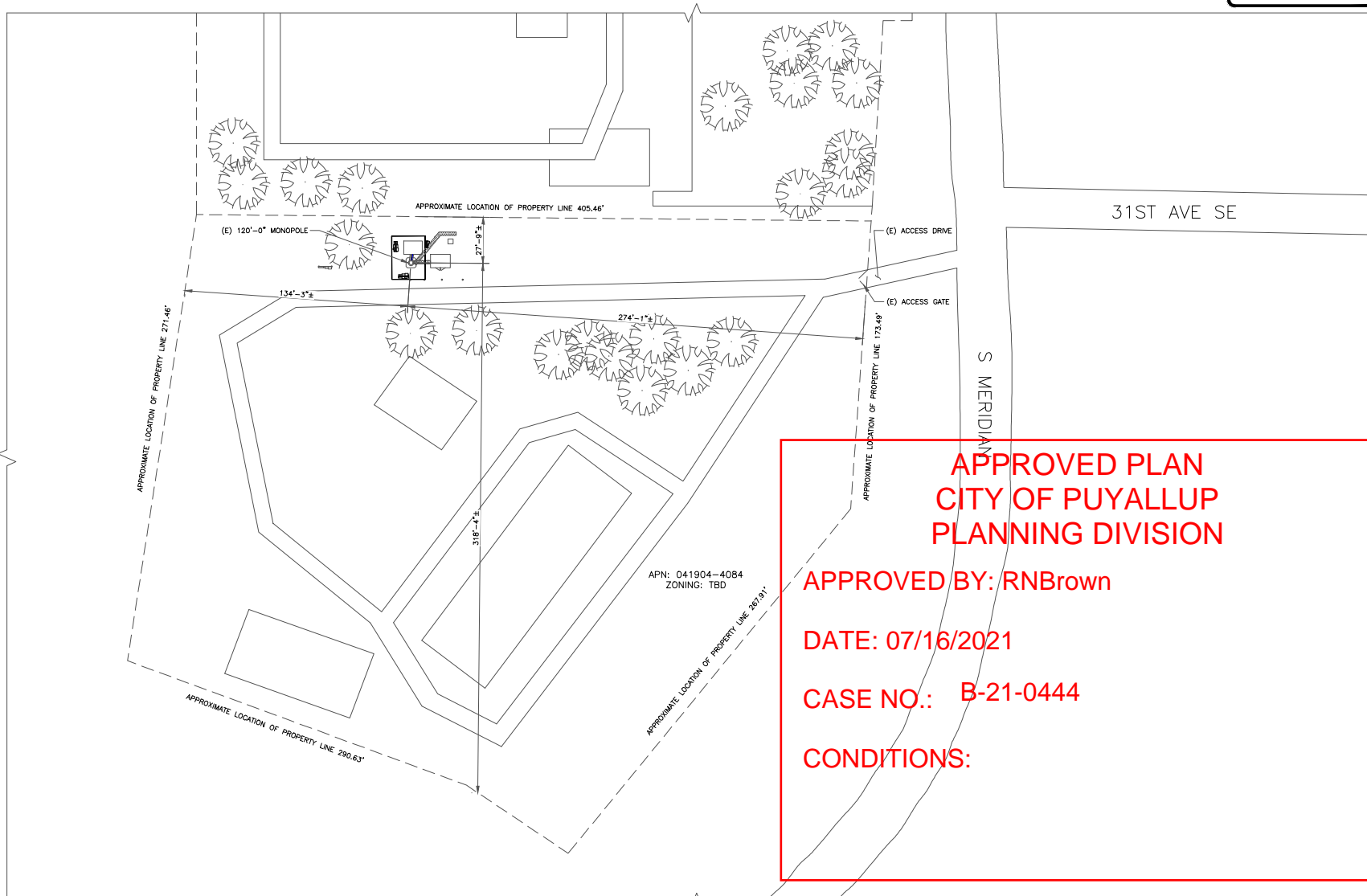
ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	DIS./Q
A	03/25/2021	MIC	PRELIMINARY	CJ
B	04/25/2021	MAN	CONSTRUCTION	CJ



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SHEET NUMBER: **C-1.1** REVISION: **A**

B-21-0444



**APPROVED PLAN
CITY OF PUYALLUP
PLANNING DIVISION**

APPROVED BY: RNBrown

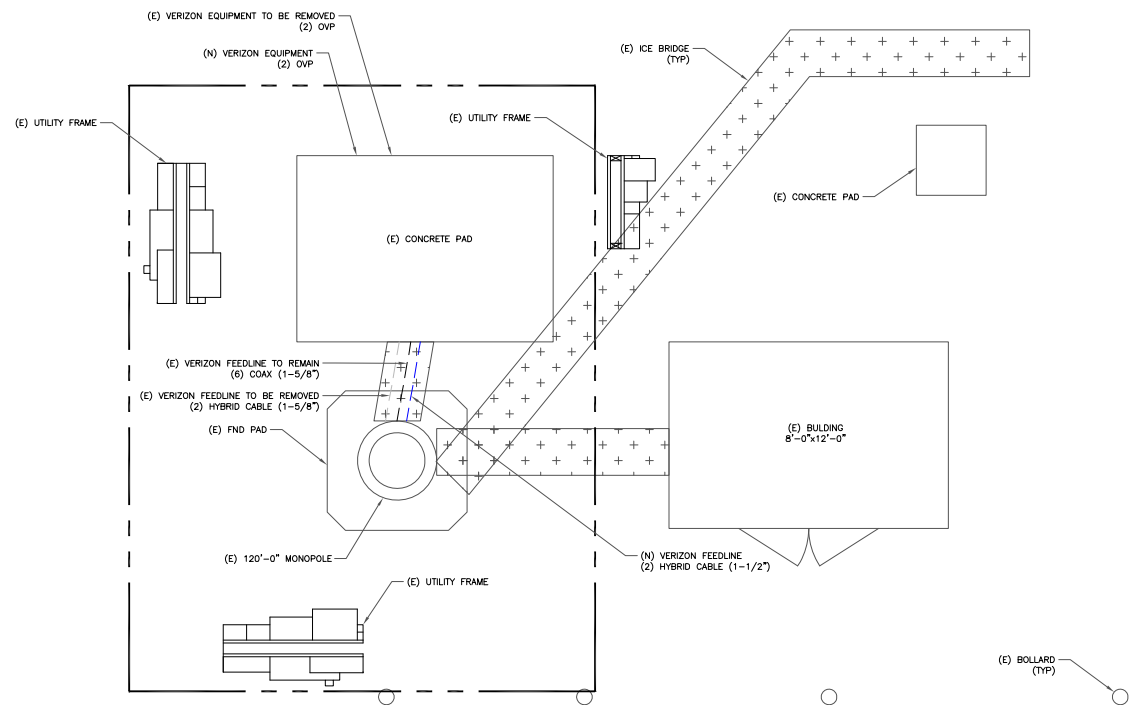
DATE: 07/16/2021

CASE NO.: B-21-0444

CONDITIONS:

1 OVERALL SITE PLAN
SCALE: 1"=30'-0" (FULL SIZE)
1"=60'-0" (11x17)





1 SITE PLAN
SCALE: 3/4"=1'-0" (FULL SIZE)
3/8"=1'-0" (1x17)



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SEATTLE, WA 98109

FULLERTON
ENGINEERING & DESIGN
1100 E. WOODFIELD RD, STE 500, SCHAMBURG, IL 60173
COAH 4 H3

VERIZON SITE NUMBER: 221424

BU #: 880329
SOUTH HILL MALL
3150 S MERIDIAN
PUYALLUP, WA 98373
EXISTING 120'-0" MONOPOLE
2021.0060.0074

ISSUED FOR:

REV.	DATE	DRAWN	DESCRIPTION	DESIGN
A	03/25/2021	AKC	PRELIMINARY	CJ
B	06/25/2021	AKC	CONSTRUCTION	CJ



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SHEET NUMBER: **C-1.2** REVISION: **A**

B-21-0444

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BELLEVUE, WA 98008

CROWN CASTLE
1505 WESTLAKE AVENUE NORTH, SUITE 800
SEATTLE, WA 98109

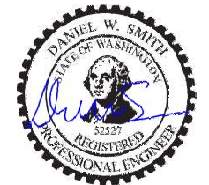
FULLERTON
ENGINEERING DESIGN
1100 E. WOODFIELD RD, STE 500, SCHAMBURG, IL 60173
COAH 4 H3

VERIZON SITE NUMBER: 221424

BU #: 880329
SOUTH HILL MALL
3150 S MERIDIAN
PUYALLUP, WA 98373
EXISTING 120'-0" MONOPOLE
2021.0060.0074

ISSUED FOR:

REV.	DATE	DRAWN	DESCRIPTION	DES. QA
A	03/25/2021	ALC	PRELIMINARY	CJ
B	06/25/2021	ALAN	CONSTRUCTION	CJ



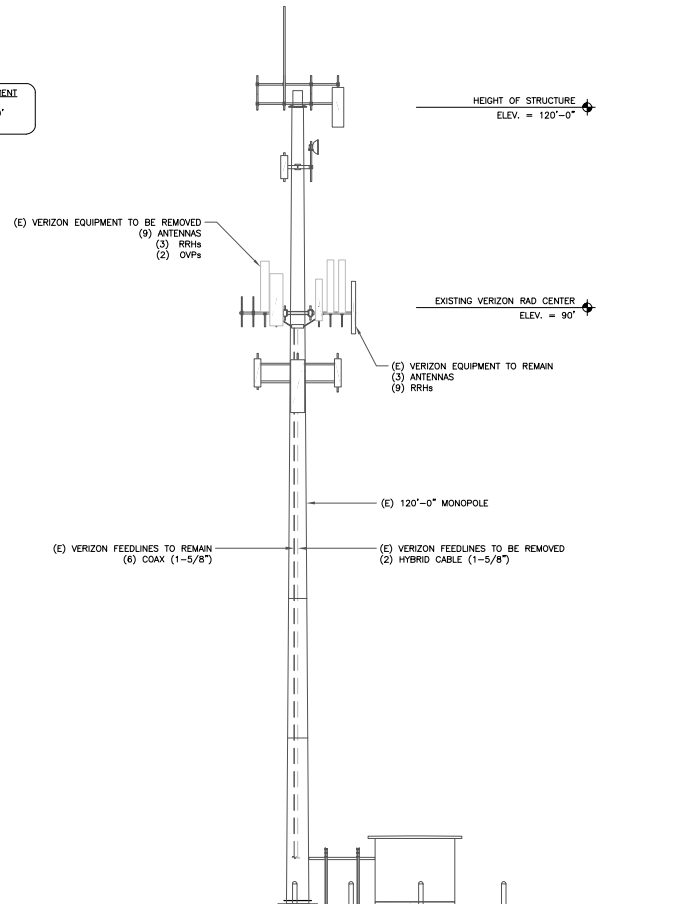
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SHEET NUMBER:
C-2

REVISION:
A

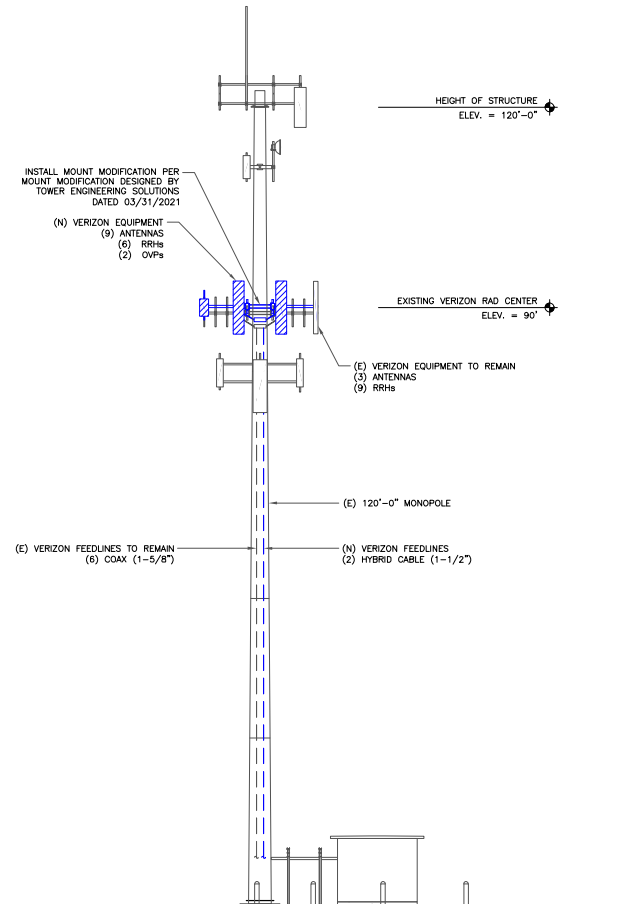
B-21-0444

VERIZON EQUIPMENT
ANTENNA CL: 90'
MOUNT CL: 89'



① EXISTING SOUTH ELEVATION
SCALE: NOT TO SCALE

VERIZON EQUIPMENT
ANTENNA CL: 90'
MOUNT CL: 89'

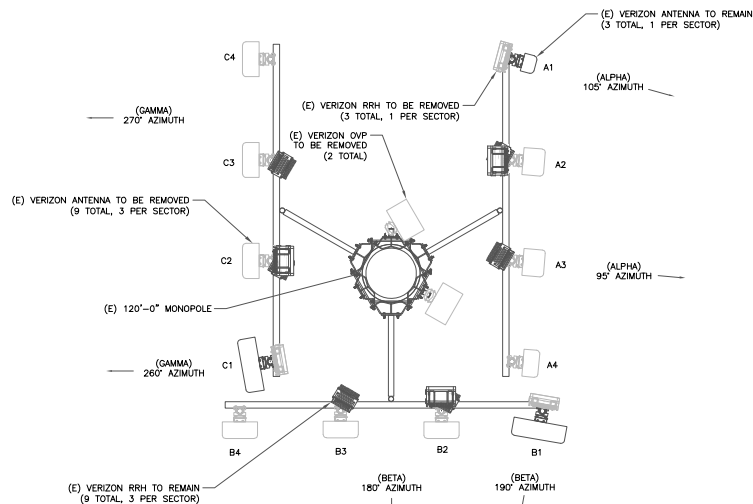


② FINAL SOUTH ELEVATION
SCALE: NOT TO SCALE

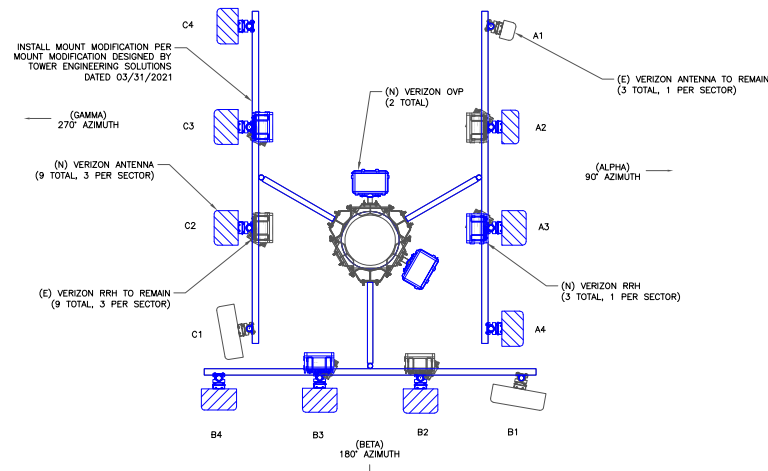
ANTENNA SCHEDULE										
SECTOR	POS.	TECHNOLOGY	RAD CENTER	AZIMUTH	ANTENNA MANUFACTURER	ANTENNA MODEL	MECH. TILT	ELECT. TILT	TOWER MOUNTED EQUIPMENT	FEEDLINE TYPE
ALPHA	A1	CMDA	90°	90°	ANTEL	BXA-70090-BCF-EDIN-X	0°	0°	-	COAX
ALPHA	A2	LTE/5G	90°	90°	JMA	MX06FROB40-02	0°	0°	(1) ERICSSON RRUS 32 B2 (1) ERICSSON 4449	COAX
ALPHA	A3	LTE/5G	90°	90°	JMA	MX10FROB40-JX	0°	0°	(1) ERICSSON RRUS 32 B66 (1) RVZDC-6627-PF-48, (1) 4408 B48	HYBRID COAX
ALPHA	A4	LTE/5G	90°	90°	V2M	SUB6 ANTENNA	0°	0°	-	COAX
BETA	B1	CMDA	90°	180°	ANTEL	BXA-70090-BCF-EDIN-X	0°	0°	-	-
BETA	B2	LTE/5G	90°	180°	JMA	MX06FROB40-02	0°	0°	(1) ERICSSON RRUS 32 B2 (1) ERICSSON 4449	HYBRID
BETA	B3	LTE/5G	90°	180°	JMA	MX10FROB40-JX	0°	0°	(1) ERICSSON RRUS 32 B66 (1) RVZDC-6627-PF-48, (1) 4408 B48	-
BETA	B4	LTE/5G	-	-	V2M	SUB6 ANTENNA	0°	0°	-	-
GAMMA	C1	CMDA	90°	270°	ANTEL	BXA-70090-BCF-EDIN-X	0°	0°	-	-
GAMMA	C2	LTE/5G	90°	270°	JMA	MX06FROB40-02	0°	0°	(1) ERICSSON RRUS 32 B2 (1) ERICSSON 4449	COAX
GAMMA	C3	LTE/5G	90°	270°	JMA	MX10FROB40-JX	0°	0°	(1) ERICSSON RRUS 32 B66 (1) 4408 B48	COAX
GAMMA	C4	LTE/5G	-	-	V2M	SUB6 ANTENNA	0°	0°	-	COAX

CABLE SCHEDULE			
STATUS	CABLE TYPE	SIZE	QUANTITY
EXISTING	COAX	1-5/8"	6
PROPOSED	HYBRID	1-1/2"	2
FINAL CABLE QUANTITY			8

1 ANTENNA AND CABLE SCHEDULE
SCALE: NOT TO SCALE



2 EXISTING ANTENNA PLAN
SCALE: NOT TO SCALE



3 FINAL ANTENNA PLAN
SCALE: NOT TO SCALE

JURISDICTIONAL APPROVAL:

verizon
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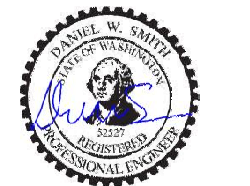
CROWN CASTLE
1505 WESTLAKE AVENUE NORTH, SUITE 800
SEATTLE, WA 98109

FULLERTON
ENGINEERING-DESIGN
1100 E. WOODFIELD RD, STE 500, SCHAMBURG, IL 60173
COAH 4 H3

VERIZON SITE NUMBER: 221424

BU #: 880329
SOUTH HILL MALL
3150 S MERIDIAN
PUYALLUP, WA 98373
EXISTING 120'-0" MONOPOLE
2021.0060.0074

ISSUED FOR:				
REV.	DATE	BY	DESCRIPTION	DES. QA
1	03/25/2021	ALC	PRELIMINARY	CJ
2	06/25/2021	ALC	CONSTRUCTION	CJ



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SHEET NUMBER: **C-3** REVISION: **A**

B-21-0444

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BELLEVUE, WA 98008

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SEATTLE, WA 98109

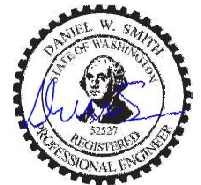
FULLERTON
ENGINEERING
1100 E. WOODFIELD RD, STE 500, SCHAUMBURG, IL 60173
COA# 4143

VERIZON SITE NUMBER: **221424**

BU #: **880329**
SOUTH HILL MALL
3150 S MERIDIAN
PUYALLUP, WA 98373
EXISTING 120'-0" MONOPOLE
2021.0060.0074

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DPS./QA
A	03/25/2021	MIC	PRELIMINARY	CJ
B	04/25/2021	MAN	CONSTRUCTION	CJ



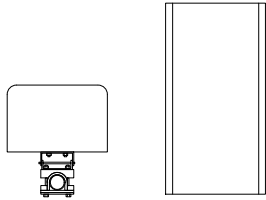
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SHEET NUMBER:

C-4

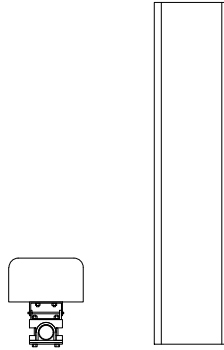
REVISION:

A



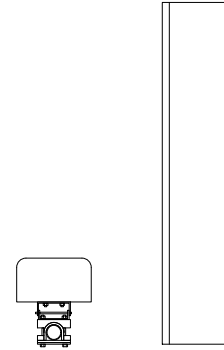
VZW - nL-SUB-6
WEIGHT: 88.0 LBS
SIZE (HxWxD): 30.8x16.1x10.8 IN.

① VZW - nL-SUB-6
SCALE: NOT TO SCALE



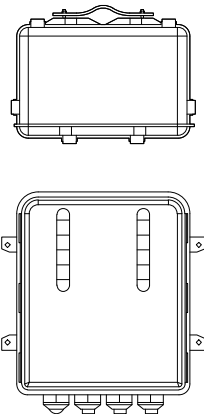
JMA WIRELESS - MX06F08405-02
WEIGHT: 93.0 LBS
SIZE (HxWxD): 95.9x19.8x10.7 IN.

② JMA WIRELESS - MX06FIT865-02_CCIV2
SCALE: NOT TO SCALE



JMA WIRELESS - MX10F08405-XX
WEIGHT: 108.40 LBS
SIZE (HxWxD): 95.9x19.8x7.4 IN.

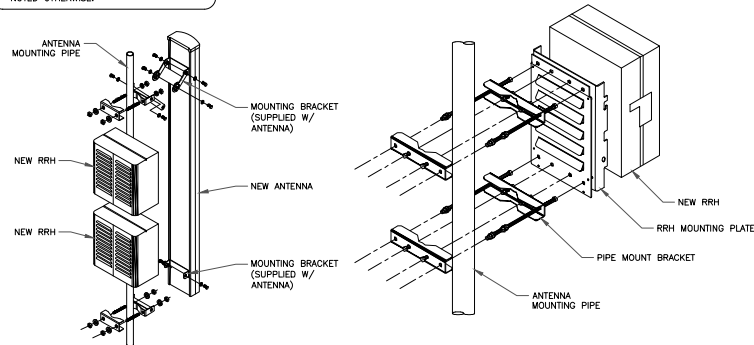
③ JMA WIRELESS - MX06FIT865-02_CCIV2
SCALE: NOT TO SCALE



RVZDC-6627-PF-48/
WEIGHT: 32.0 LBS
SIZE (HxWxD): 28.93x15.73x10.31 IN.

④ RAYCAP - OVP12
SCALE: NOT TO SCALE

INSTALLER NOTES:
1. COMPLY WITH MANUFACTURERS
INSTRUCTIONS TO ENSURE THAT ALL RRHs
RECEIVE ELECTRICAL POWER WITHIN 24
HOURS OF BEING REMOVED FROM THE
MANUFACTURER'S PACKAGING.
2. DO NOT OPEN RRH PACKAGES IN THE RAIN.
3. ALL PIPES, BRACKETS, AND MISCELLANEOUS
HARDWARE TO BE GALVANIZED UNLESS
NOTED OTHERWISE.



⑤ ANTENNA WITH RRHs MOUNTING DETAIL
SCALE: NOT TO SCALE

B-21-0444

JURISDICTIONAL APPROVAL:

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3245 158TH AVENUE MS 231
BELLEVUE, WA 98008

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1505 WESTLAKE AVENUE NORTH, SUITE 800
SEATTLE, WA 98109

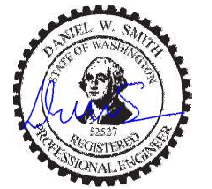
FULLERTON
ENGINEERING-DESIGN
1100 E. WOODFIELD RD, STE 500, SCHAMBURG, IL 60173
COAH 4 H3

VERIZON SITE NUMBER: 221424

BU #: 880329
SOUTH HILL MALL
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PUYALLUP, WA 98373
EXISTING 120'-0" MONOPOLE
2021.0060.0074

ISSUED FOR:

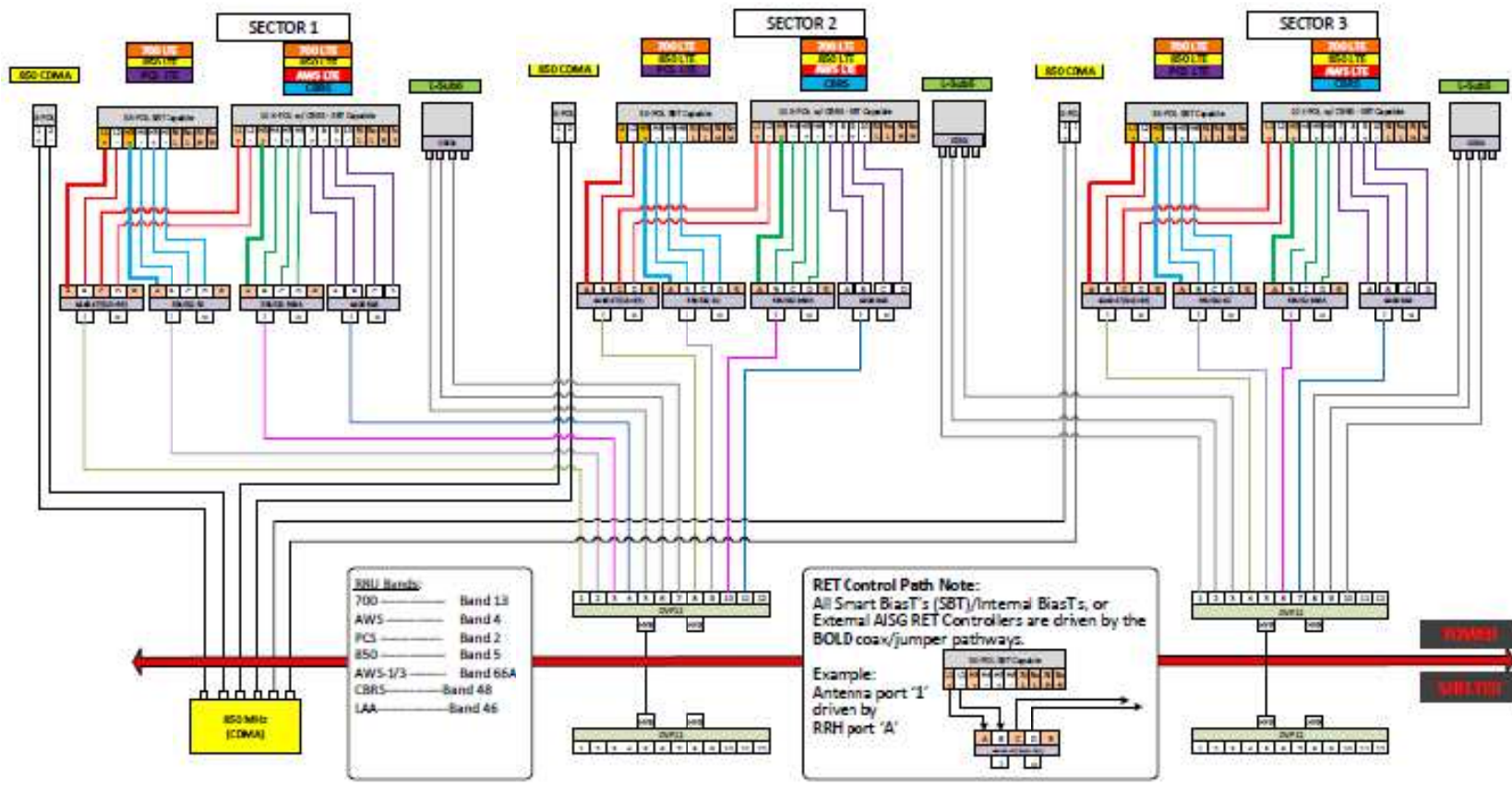
REV.	DATE	DRAWN	DESCRIPTION	DEN. QTY.
A	03/25/2021	ABC	PRELIMINARY	CJ
B	06/25/2021	ABC	CONSTRUCTION	CJ



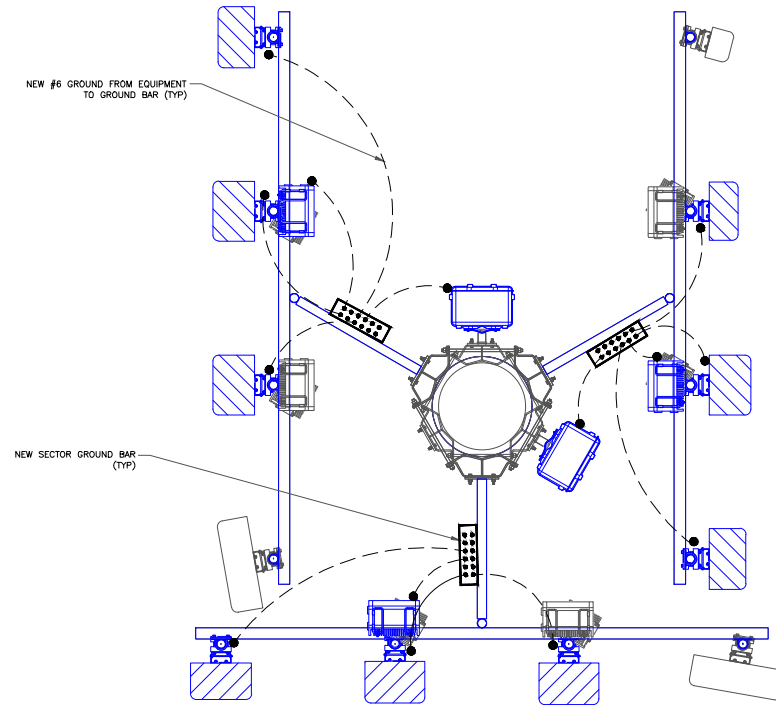
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SHEET NUMBER: **C-6** REVISION: **A**

B-21-0444



1 CONFIGURATION DIAGRAM
SCALE: NOT TO SCALE



GROUNDING LEGEND

---	#6 STRANDED & INSULATED
-----	GROUND BUS BAR
•	MECHANICAL CONNECTION

1 ANTENNA GROUNDING PLAN
SCALE: NOT TO SCALE

JURISDICTIONAL APPROVAL:

verizon
3245 158TH AVENUE MS 231
BELLEVUE, WA 98008

CROWN CASTLE
1505 WESTLAKE AVENUE NORTH, SUITE 800
SEATTLE, WA 98109

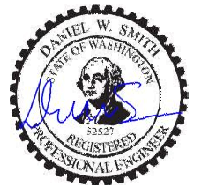
FULLERTON
ENGINEERING
1100 E. WOODFIELD RD, STE 500, SCHAMBURG, IL 60173
COAH# 4143

VERIZON SITE NUMBER: 221424

BU #: 880329
SOUTH HILL MALL
3150 S MERIDIAN
PUYALLUP, WA 98373
EXISTING 120'-0" MONOPOLE
2021.0060.0074

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REV	DATE	DRWN	DESCRIPTION	DIS./QA
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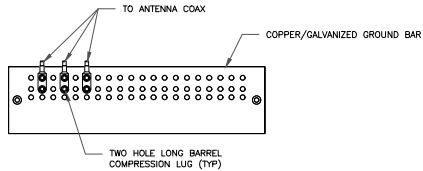


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G-1

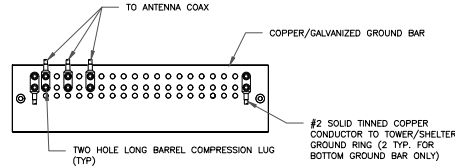
REVISION:
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B-21-0444



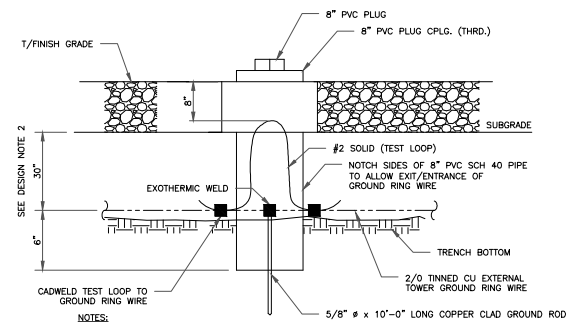
- NOTES:**
1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
 2. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
 3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO ANTENNA MOUNT STEEL.

① ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE



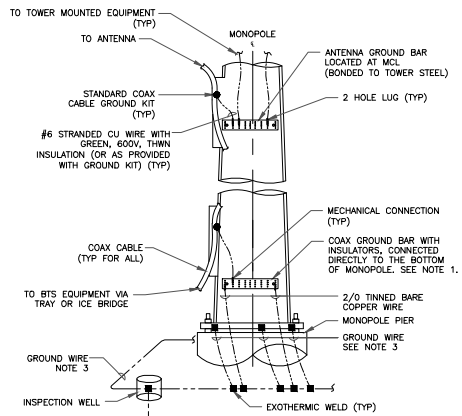
- NOTES:**
1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
 2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
 3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

② TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE



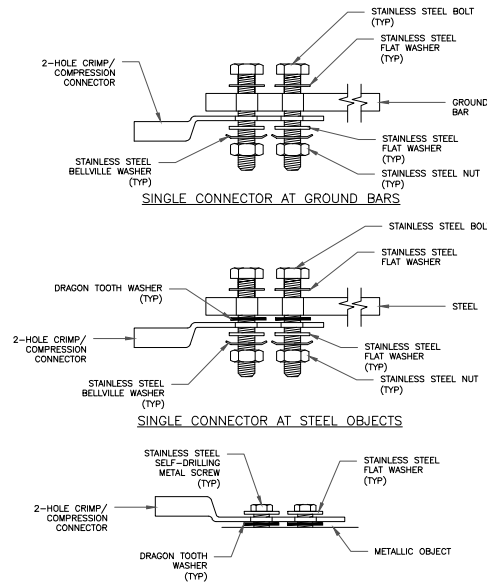
- NOTES:**
1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL.
 2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D).

③ INSPECTION WELL DETAIL
SCALE: NOT TO SCALE

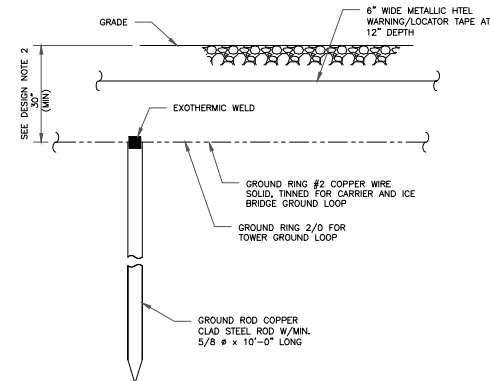


- NOTES:**
1. NUMBER OF GROUNDING BARS MAY VARY DEPENDING ON THE TYPE OF TOWER. ANTENNA LOCATIONS AND CONNECTION ORIENTATION, COAXIAL CABLES EXCEEDING 200 FEET ON THE TOWER SHALL HAVE GROUND KITS AT THE MIDPOINT. PROVIDE AS REQUIRED.
 2. ONLY MECHANICAL CONNECTIONS ARE ALLOWED TO BE MADE TO CROWN CASTLE USA INC. TOWERS. ALL MECHANICAL CONNECTIONS SHALL BE TREATED WITH AN ANTI-OXIDANT COATING.
 3. ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF THE RECOGNIZED EDITION OF ANSI/TIA 222 AND NFPA 780.

④ TYPICAL ANTENNA CABLE GROUNDING
SCALE: NOT TO SCALE



⑤ HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



- NOTES:**
1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL.
 2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D).

⑥ GROUND ROD DETAIL
SCALE: NOT TO SCALE

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BELLEVUE, WA 98008

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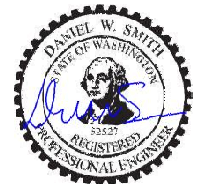
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ENGINEERING
1100 E. WOODFIELD RD, STE 500, SCHAMBURG, IL 60173
COAH 4143

VERIZON SITE NUMBER: 221424

BU #: 880329
SOUTH HILL MALL
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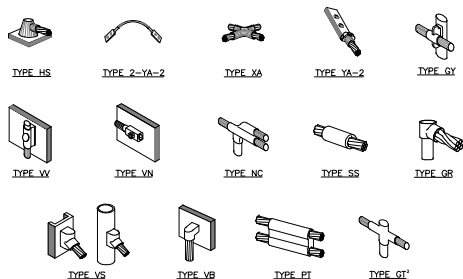
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G-2

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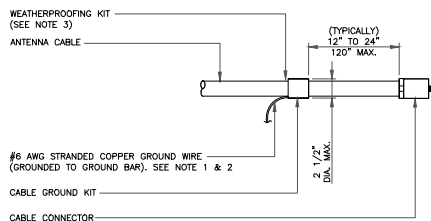
B-21-0444



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.

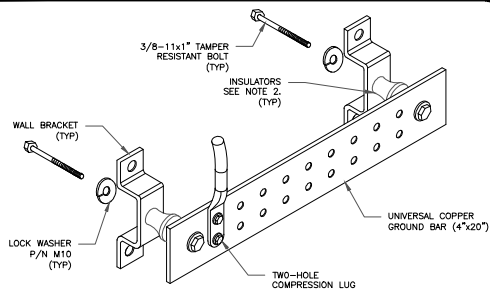
1 CADWELD GROUNDING CONNECTIONS
SCALE: NOT TO SCALE



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

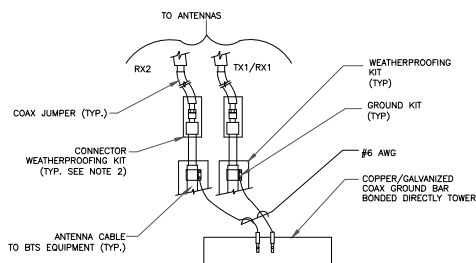
3 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



NOTES:

1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STO-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL. USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

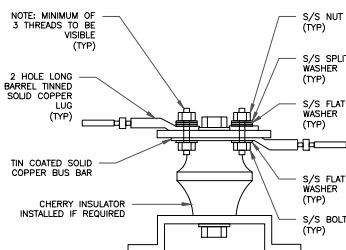
6 GROUND BAR DETAIL
SCALE: NOT TO SCALE



NOTES:

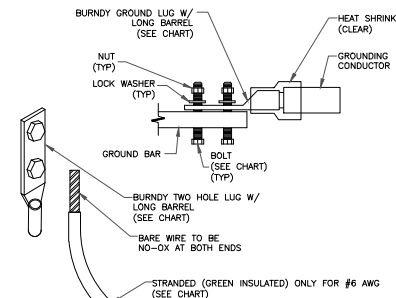
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

4 GROUND CABLE CONNECTION
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE

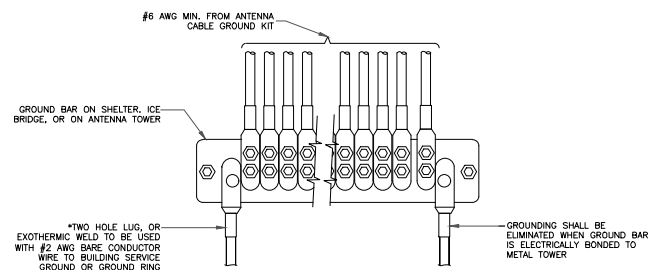
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT



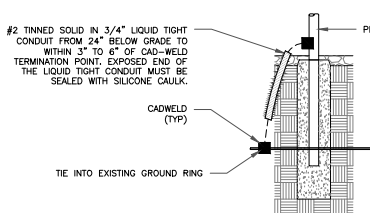
NOTES:

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.

2 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



5 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



8 TRANSITIONING GROUND DETAIL
SCALE: NOT TO SCALE

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1100 E. WOODFIELD RD, STE 500, SCHAMBURG, IL 60173
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VERIZON SITE NUMBER: 221424

BU #: 880329
SOUTH HILL MALL
3150 S MERIDIAN
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EXISTING 120'-0" MONOPOLE
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B-21-0444



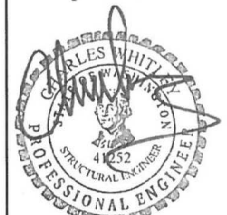
Tower Engineering Solutions
1320 GREENWAY DRIVE, SUITE 600
IRVING, TX 75038
PH: (972) 483-0807



TES JOB NO:
10049216

CUSTOMER SITE NO:
221424-VZW
CUSTOMER SITE NAME:
BRADLEY PARK - A
3150 S MERIDIAN ST.
PUYALLUP, WA 98373

Exp.08/12/2021



04/01/2021

DRAWN BY: JM CHECKED BY: BS/CHLE

REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	JM	04/01/21

SHEET TITLE:

TITLE SHEET

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SHEET NUMBER: T-1 REV #: 0

MODIFICATION AND DESIGN DRAWINGS FOR EXISTING ANTENNA MOUNTS EXISTING MONOPOLE TOWER

PROPOSED CARRIER: VERIZON

TOWER OWNER: CROWN CASTLE / TOWER OWNER SITE #: 880329

CARRIER SITE #/NAME: 221424-VZW / BRADLEY PARK - A

COORDINATES (LATITUDE: 47.162078°, LONGITUDE: -122.294456°)

FUZE ID # 16225818

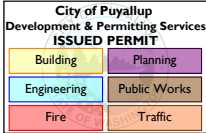
NOTE:

1. THE MODIFICATION DRAWINGS ARE BASED ON THE TES PROJECT NO. 10037121, DATED 02/25/2021.

Contractor PMI Requirements	SHEET	SHEET TITLE	REV
PMI Accessed At https://pmi.vzwsmart.com	T-1	TITLE SHEET	0
Smart Tool Vendor Project Number 10049216	BOM	BILL OF MATERIALS	0
VzW Location Code (PSLC) 221424	GN-1	GENERAL NOTES	0
*** PMI and Requirements also embedded in Mount Analysis Report	A-1	ANTENNA MOUNT MODIFICATION DETAILS	0
	A-2	ANTENNA MOUNT PHOTOS	0
	D-1	STANDARD DETAILS	0
	SAF-1	SAFETY CABLE GUIDE DETAILS	0
	VZWSMART-MSK2	CROSSOVER PLATE	
	VZWSMART-PLK7	MONOPOLE COLLAR MOUNT ASSEMBLY	
	VZWSMART-SFK4	T-ARM KIT	
VzW APPROVED SMART KIT VENDORS			
Refer to Mount Modification Drawings Page for VzW SMART KIT Approved Vendors			

B-21-0444

The manufacturers listed are the only approved vendors for the VzW Mount Kits. Each manufacturer will be aware of which kits have been through the VzW approval process and they are in turn approved to sell. Please note that the material utilized on the mount modifications will be reviewed as a part of the Desktop PMI completed by the SMART tool vendor. It will be required that the VzW kits specified are utilized in the modification.



GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH THE ANSI/TIA-222-H, ANSI/ASSP A10.48, AND ANY OTHER GOVERNING BUILDING CODES AND OSHA SAFETY REGULATIONS.
2. ALL WORK INDICATED ON THE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN TELECOMMUNICATIONS TOWER, POLE AND FOUNDATION CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND FABRICATION OF ALL MISCELLANEOUS PARTS (SUCH AS SHIMS), TEMPORARY SUPPORTS, AND GUYINGS, ETC., PER ANSI/ASSP A10.48, TO COMPLETE THE ASSEMBLY AS SHOWN IN THE DRAWINGS.
4. CONTRACTOR SHALL PROCEED WITH THE INSTALLATION WORK CAREFULLY SO THE WORK WILL NOT DAMAGE ANY EXISTING CABLE, EQUIPMENT OR THE STRUCTURE.
5. THE USE OF GAS TORCH OR WELDER, ARE NOT ALLOWED ON ANY TOWER STRUCTURE WITHOUT THE CONSENT OF THE TOWER OWNER.
6. GENERALLY THE CONTRACTOR IS RESPONSIBLE TO CONDUCT AN ONSITE VISIT SURVEY OF THE JOB SITE AFTER AWARD, AND REPORT ANY ISSUES WITH THE SITE TO TES BEFORE PROCEEDING CONSTRUCTION.
7. IT IS THE RESPONSIBILITY OF THE GC TO VERIFY THAT THERE IS NO INTERFERENCES (WITH SAFETY CLIMB BRACKETS, TRANSMISSION LINES, ETC.) PRIOR TO MOBILIZATION AND INSTALLATION OF THESE MODIFICATIONS.
8. PLEASE NOTIFY TES IMMEDIATELY IF ANY INSTALLATION ISSUES OCCUR RELATED TO THIS DRAWING @ 972-483-0607 OR EMAIL-TESORDERS@TESTOWER.US

FABRICATION

1. ALL STEEL SHALL MEET OR EXCEED THE MINIMUM STRENGTH AS SPECIFIED IN THE DRAWINGS. IF YIELD STRENGTH WAS NOT NOTED IN THE DRAWINGS, CONTRACTORS SHALL CONTACT TES FOR DIRECTION.
2. ALL FIELD CUT EDGES SHALL BE GROUND SMOOTH. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

WELDING

1. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS AND IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNO. (E70XX UNLESS NOTED OTHERWISE).
2. PRIOR TO FIELD WELDING GALVANIZED MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING APPROX. 0.5" BEYOND THE PROPOSED FIELD WELD SURFACES.
3. ALL WELDS SHALL BE INSPECTED VISUALLY. A MINIMUM OF 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. 100% OF WELDS SHALL BE INSPECTED IF DEFECTS ARE FOUND.
4. WELD INSPECTIONS SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
5. AFTER INSPECTION, ALL FIELD WELDED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

BOLTED ASSEMBLIES AND TIGHTENING OF CONNECTIONS

1. ALL HIGH STRENGTH BOLTS SHALL CONFORM TO THE PROVISIONS OF THE SPECIFICATIONS FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS AS APPROVED BY THE RCSC.
2. FLANGE BOLTS SHALL BE TIGHTENED BY THE AISC "TURN-OFF-THE-NUT" METHOD. THE FOLLOWING TABLE SHOULD BE USED FOR THE "TURN-OFF-THE-NUT" TIGHTENING.
3. SPLICE BOLTS AND ALL OTHER BOLTS IN BEARING TYPE CONNECTIONS SHALL BE TIGHTENED TO A SNUG-TIGHT CONDITION.
4. THE SNUG-TIGHT CONDITION IS DEFINED AS THE TIGHTNESS ATTAINED BY EITHER A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER WITH AN ORDINARY SPUD WRENCH TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.
5. HB HOLLO-BOLT SHALL BE INSTALLED PER ICC ESR-3330 INSTRUCTIONS.

VERIFICATION AND INSPECTION

1. IF APPLICABLE, VERIFICATION INSPECTION TO BE PERFORMED SHALL BE IN ACCORDANCE TO IBC-2018 SECTION 1705.2 FOR STEEL CONSTRUCTION AND TABLE 1705.3 FOR CONCRETE CONSTRUCTION.

TABLE 8.2 NUT ROTATION FROM SNUG-TIGHT
CONDITION FOR TURN-OF-NUT PRETENSIONING^{a,b}

BOLT LENGTH ^f	DISPOSITION OF OUTER FACE OF BOLTED PARTS		
	BOTH FACES NORMAL TO BOLT AXIS	ONE FACE NORMAL TO BOLT AXIS, OTHER SLOPED NOT MORE THAN 1:20 ^d	BOTH FACES SLOPED NOT MORE THAN 1:20 FROM NORMAL TO BOLT AXIS ^d
NOT MORE THAN 4d _b	1/3 TURN	1/2 TURN	2/3 TURN
MORE THAN 4d _b BUT NOT MORE THAN 8d _b	1/2 TURN	2/3 TURN	5/6 TURN
MORE THAN 8d _b BUT NOT MORE THAN 12d _b	2/3 TURN	5/6 TURN	1 TURN
^a NUT ROTATION IS RELATIVE TO BOLT REGARDLESS OF THE ELEMENT (NUT OR BOLT) BEING TURNED. FOR REQUIRED NUT ROTATIONS OF 1/2 TURN AND LESS, THE TOLERANCE IS PLUS OR MINUS 30 DEGREES; FOR REQUIRED NUT ROTATIONS OF 2/3 TURN AND MORE, THE TOLERANCE IS PLUS OR MINUS 45 DEGREES.			
^b APPLICABLE ONLY TO JOINTS IN WHICH ALL MATERIAL WITHIN THE GRIP IS STEEL.			
^c WHEN THE BOLT LENGTH EXCEEDS 12d _b , THE REQUIRED NUT ROTATION SHALL BE DETERMINED BY ACTUAL TESTING IN A SUITABLE TENSION CALIBRATOR THAT SIMULATES THE CONDITIONS OF SOLIDLY FITTING STEEL.			
^d BEVELED WASHER NOT USED.			

SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, JUNE 30, 2004
RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS

INSTALLATION TORQUE REQUIRED FOR HOLLO BOLTS AND AJAX BOLTS:

1. HB12 HOLLO BOLT: 59 FT-LBS
2. HB16 HOLLO BOLT: 140 FT-LBS
3. HB20 HOLLO BOLT: 221 FT-LBS
4. M20 AJAX BOLT: 280 FT-LBS.

FIELD HOT WORK PLAN NOTES:

FOLLOWING GUIDELINES SHALL BE COMPLIED WITH:

1. CONTRACTOR'S RESPONSIBILITY TO COMPLETE A HOT WORK PLAN IF AWARDED PER CUSTOMER SPECIFICATIONS GUIDELINES FOR WELDING, CUTTING & SPARK PRODUCING WORK.
2. HAVE A FIRE PLAN APPROVED BY THE CUSTOMER AND THEIR SAFETY MANAGEMENT DEPT.
3. CONTRACTOR MUST OBTAIN THE CONTACT INFO OF THE LOCAL FIRE DEPARTMENT AND THE 911 ADDRESS OF THE TOWER SITE BEFORE CONSTRUCTION.
4. CONTRACTOR SHALL MAKE SURE THAT CELL PHONE COVERAGE IS AVAILABLE IN THE TOWER SITE. IF CELL COVERAGE IS NOT AVAILABLE, AN IMMEDIATE AVAILABLE MEANS OF DIRECT COMMUNICATION WITH THE FIRE DEPARTMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION START.
5. ALL CONSTRUCTION SHALL BE PERFORMED UNDER WIND SPEED LESS THAN 10 MPH ON THE GROUND LEVEL. IF WIND SPEED INCREASE, CONTRACTOR MUST DETERMINE IF CONSTRUCTION SHALL BE DISCONTINUED.
6. FIRE SUPPRESSION EQUIPMENT MUST BE MADE AVAILABLE ON SITE AND READY TO USE.
7. CONTRACTOR SHALL ASSIGN A FIRE WATCHER TO PERFORM FIRE-FIGHTING DUTIES.
8. ALL WELDERS SHALL BE AWS OR STATE CERTIFIED. THEY MUST ALSO BE EXPERIENCED IN WELDING ON GALVANIZED MATERIALS.
9. IF IT IS POSSIBLE, ALL EXISTING COAX NEAR WELDING AREA SHALL BE TEMPORARILY MOVED AWAY FROM THE WELDING AREA BEFORE WELDING THE PLATES.
10. PLEASE REPORT ANY FIELD ISSUE TO TES @ 972-483-0607.



TES

Tower Engineering Solutions
1320 GREENWAY DRIVE, SUITE 600
IRVING, TX 75038
PH: (972) 483-0607

verizon

TES JOB NO:
10049216
CUSTOMER SITE NO:
221424-VZW
CUSTOMER SITE NAME:
BRADLEY PARK - A
3150 S MERIDIAN ST.
PUYALLUP, WA 98373

DRAWN BY:JM CHECKED BY:BS/CHLE

REV.	DESCRIPTION	BY	DATE
△	FIRST ISSUE	JM.	04/01/21
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△			
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△			

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REV #:
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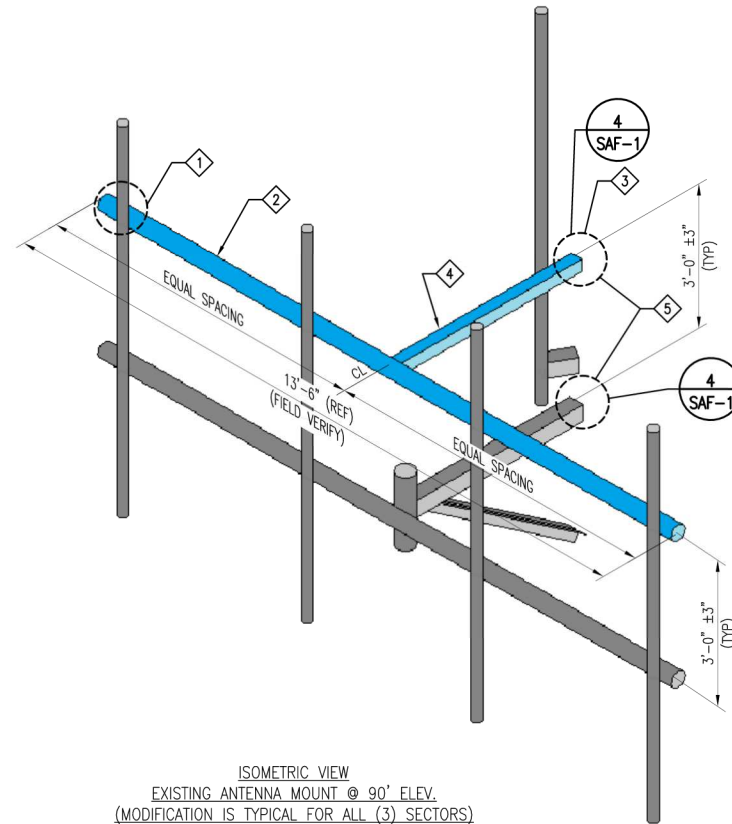
SCOPE OF WORK

1. INSTALL NEW VZWSMART CROSSOVER PLATE KIT, (4) PER SECTOR. SEE SHEET VZWSMART-MSK2 FOR DETAILS.
2. INSTALL NEW 3" PST SUPPORT RAIL PIPE, (1) PER SECTOR.
3. INSTALL NEW VZWSMART MONOPOLE COLLAR MOUNT ASSEMBLY. SEE SHEET VZWSMART-PLK7 FOR DETAILS.
4. INSTALL NEW VZWSMART T-ARM KIT, (1) PER SECTOR. SEE SHEET VZWSMART-SFK4 FOR DETAILS.
5. INSTALL NEW SAFETY CLIMB GUIDES TO PREVENT EXISTING SAFETY CLIMB FROM RUBBING AGAINST EXISTING AND NEW COLLAR MOUNTS. SEE SHEET SAF-1 FOR DETAILS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEAN-UP, REMOVAL AND DISPOSAL OF EXCESS MATERIALS USED AND REMOVED FROM THE STRUCTURE AT THE COMPLETION OF THE PROJECT.



EXISTING ANTENNA MOUNT
@ 90° ELEV

PHOTO 1



ISOMETRIC VIEW
EXISTING ANTENNA MOUNT @ 90° ELEV.
(MODIFICATION IS TYPICAL FOR ALL (3) SECTORS)

CONTRACTOR NOTE:

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THERE IS NO INTERFERENCES WITH (PORT HOLES, SAFETY CLIMB BRACKETS, TRANSMISSION LINES, ETC.) PRIOR TO MOBILIZATION AND INSTALLATION OF THESE MODIFICATIONS.
2. PLEASE NOTIFY TES IMMEDIATELY IF ANY INSTALLATION ISSUES OCCUR RELATED TO THIS DRAWING @ 972-483-0607 OR EMAIL-TESORDERS@TESTOWER.US

NOTES:

1. TEMPORARILY RELOCATE ANY EXISTING COAX ATTACHED TO THE LEGS AND/OR ANY OTHER MEMBERS WHERE OBSTRUCTION WITH THE PROPOSED MODIFICATION MAY OCCUR.
2. WHEN FIELD CUTTING AND DRILLING ANGLES, USE SAME GAGE LINES AND EDGE DISTANCES AS INDICATED ON SHOP CUT AND DRILLED ENDS.
3. APPLY (2) COATS OF ZINGA COLD GALVANIZING COMPOUND AS PER THE MANUFACTURER'S SPECIFICATIONS TO ALL FIELD CUT AND DRILLED AREAS.
4. MEMBERS IN BLUE COLOR ARE NEW REINFORCEMENTS.

ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	12	VZWSMART-MSK2	CROSSOVER PLATE
2	3	PST350-15	3" PST (3.50" O.D X 0.216" THK) X 15'-0" A53 GR-B 35KSI
3	1	VZWSMART-PLK7	MONOPOLE COLLAR MOUNT ASSEMBLY
4	3	VZWSMART-SFK4	T-ARM KIT



Tower Engineering Solutions
1320 GREENWAY DRIVE, SUITE 600
IRVING, TX 75038
PH: (972) 483-0607



TES JOB NO:
10049216

CUSTOMER SITE NO:
221424-VZW
CUSTOMER SITE NAME:
BRADLEY PARK - A
3150 S MERIDIAN ST.
PUYALLUP, WA 98373

DRAWN BY: JM CHECKED BY: BS/CHLE

REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	JM	04/01/21
2			
3			
4			

SHEET TITLE:

ANTENNA MOUNT
MODIFICATION DETAILS

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SHEET NUMBER: A-1 REV #: 0

B-21-0444

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



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REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	JM	04/01/21
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3			
4			

SHEET TITLE:

ANTENNA MOUNT
PHOTOS

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SHEET NUMBER: A-2 REV #: 0

B-21-0444



PHOTO 1



PHOTO 2



PHOTO 3

EXISTING EQUIPMENT MUST BE RELOCATED UP OR DOWN ALONG THE MEMBER TO ACCOMMODATE INSTALLATION OF NEW SUPPORT RAIL PIPE.



PHOTO 4

INSTALL NEW SAFETY CLIMB GUIDE TO PREVENT EXISTING SAFETY CLIMB FROM RUBBING AGAINST EXISTING AND NEW COLLAR MOUNTS. SEE SHEET SAF-1 FOR DETAILS.

NOTE:
EXISTING RRUS/EQUIPMENT MAY BE RELOCATED ALONG THE MEMBER TO ACCOMMODATE THE INSTALLATION OF NEW MOUNT MODIFICATION



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CUSTOMER SITE NO:
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CUSTOMER SITE NAME:
BRADLEY PARK - A
3150 S MERIDIAN ST.
PUYALLUP, WA 98373

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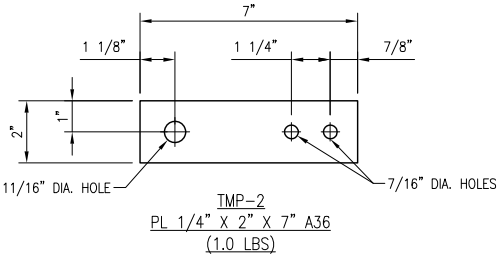
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1	FIRST ISSUE	JM	04/01/21

SHEET TITLE:

STANDARD DETAILS

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SHEET NUMBER: D-1	REV #: 0
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- NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.
 2. ALL HOLES ARE 11/16" DIA. U.N.O

B-21-0444



TES

Tower Engineering Solutions

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IRVING, TX 75038
PH: (972) 483-0607

verizon

TES JOB NO:
10049216

CUSTOMER SITE NO:
221424-VZW

CUSTOMER SITE NAME:
BRADLEY PARK - A

3150 S MERIDIAN ST.
PUYALLUP, WA 98373

Received
Development Services
June 16, 2021
CITY OF PUYALLUP

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1	FIRST ISSUE	JM	04/01/21
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4			

SHEET TITLE:

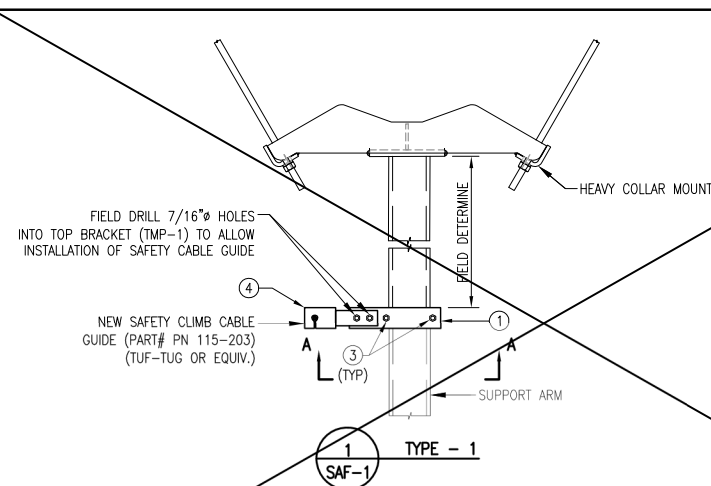
SAFETY CABLE GUIDE
DETAILS

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SHEET NUMBER:
SAF-1

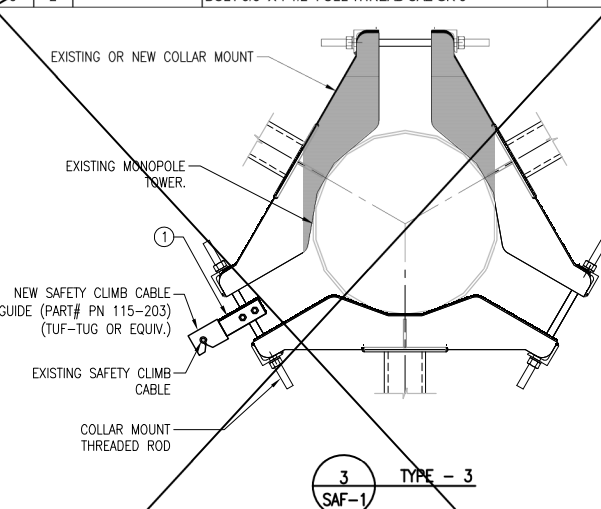
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B-21-0444

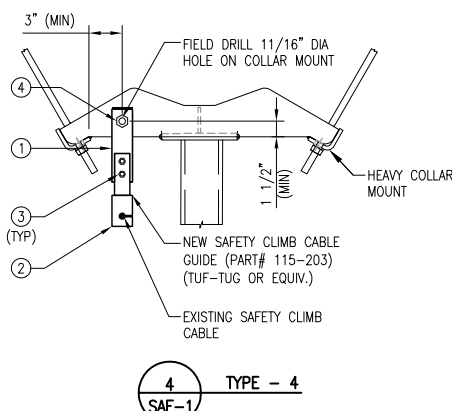


ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	1	TMP-1	PL 1/4" X 2" X 9 1/2" A36
2	1	BMP-1	PL 1/4" X 2" X 6 1/2" A36
3	2	---	THREADED ROD 3/8" X 8" A36
4	1	PN 115-203	SAFETY CABLE GUIDE (TUF-TUG OR EQUIV.)
5	2	---	BOLT 3/8" X 1 1/2" FULL THREAD SAE GR 5

NOTE:
SAFETY CLIMB GUIDE MAY BE INSTALLED ON EITHER LEFT OR RIGHT SIDE OF THE SUPPORT ARM, DEPENDING ON WHERE THE EXISTING SAFETY CLIMB IS LOCATED.

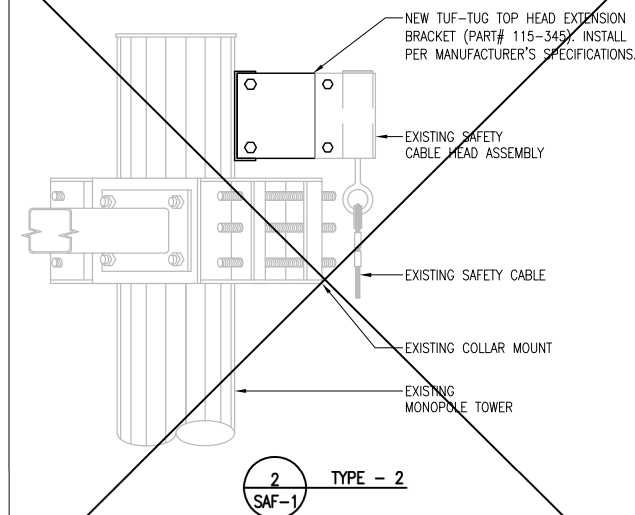


ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	1	PN 115-203	SAFETY CABLE GUIDE (TUF-TUG OR EQUIV.)

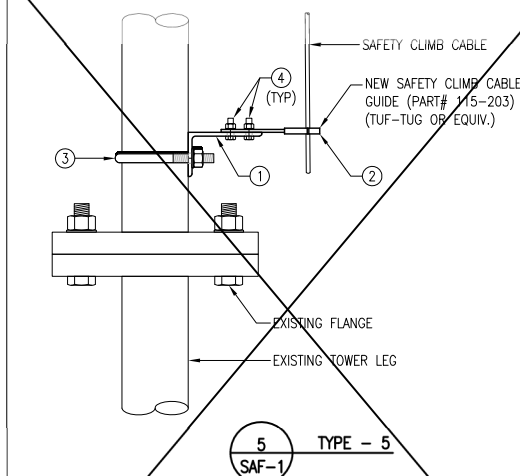


NOTE:
SAFETY CLIMB GUIDE MAY BE INSTALLED ON EITHER LEFT OR RIGHT SIDE OF THE COLLAR MOUNT, DEPENDING ON WHERE THE EXISTING SAFETY CLIMB IS LOCATED.

ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	1	TMP-2	PL 1/4" X 2" X 7" A36
2	1	PN 115-203	SAFETY CABLE GUIDE (TUF-TUG OR EQUIV.)
3	2	---	BOLT 3/8" X 1 1/2" FULL THREAD SAE GR 5
4	1	---	BOLT 5/8" X 2" A325



ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	1	115-345	TUF-TUG MONOPOLE HEAD EXTENSION ASSEMBLY



ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	1	SCGB-4	L 5" X 3" X 1/4" X 7 1/2" A36
2	1	PN 115-203	SAFETY CABLE GUIDE (TUF-TUG OR EQUIV.)
3	1	MS02-625-4625-700	RU-BOLT 5/8" X 4 5/8" I.W. X 7" I.L. A36 (OR EQUIV.)
4	2	---	BOLT 3/8" X 1 1/2" FULL THREAD SAE GR 5

THE FOLLOWING DRAWINGS ARE INCLUDED FOR REFERENCE ONLY
PLEASE REFER TO THE INSTALLATION DRAWINGS FOR ACTUAL INSTALLATION DETAILS

VzW
SMART Tool[®]
Vendor

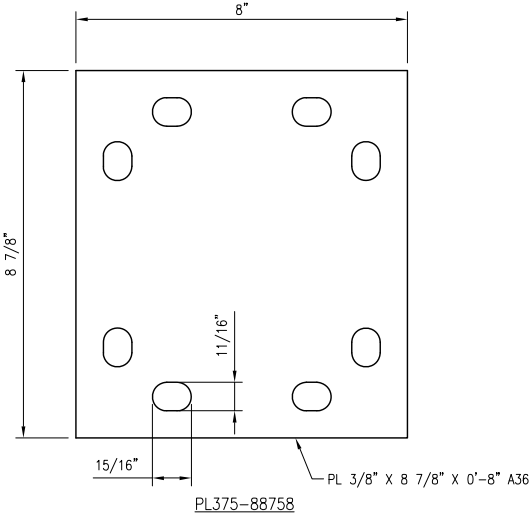
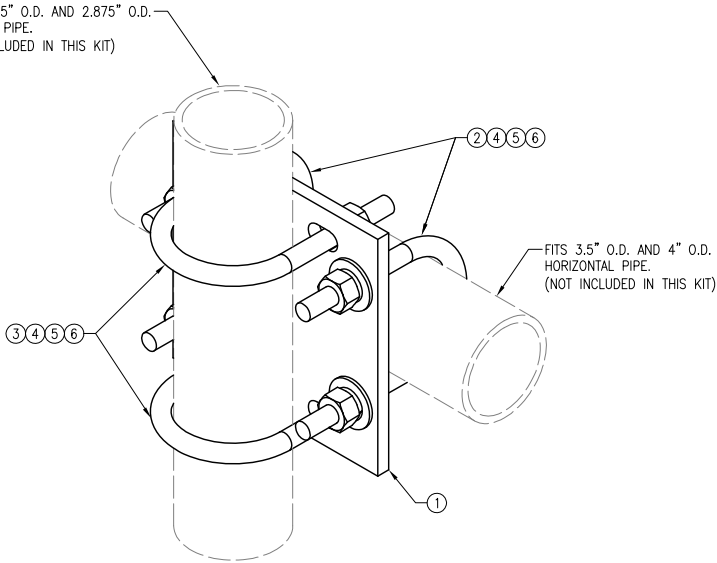


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REV.	DESCRIPTION	BY	DATE
△	FIRST ISSUE	H.R.	05/08/20
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SHEET TITLE:

VZWSMART-MSK2
CROSSOVER PLATE

SHEET NUMBER: VZWSMART-MSK2	REV #: 0
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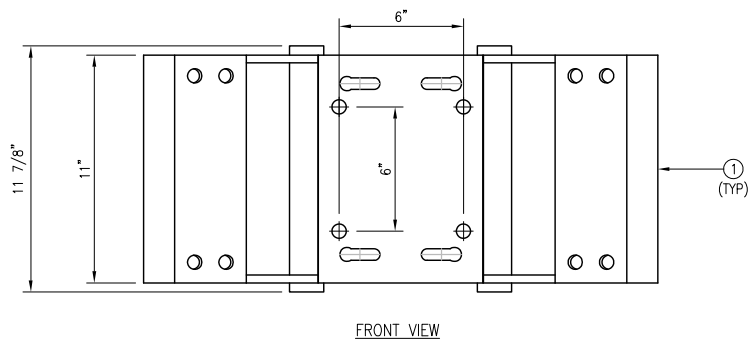
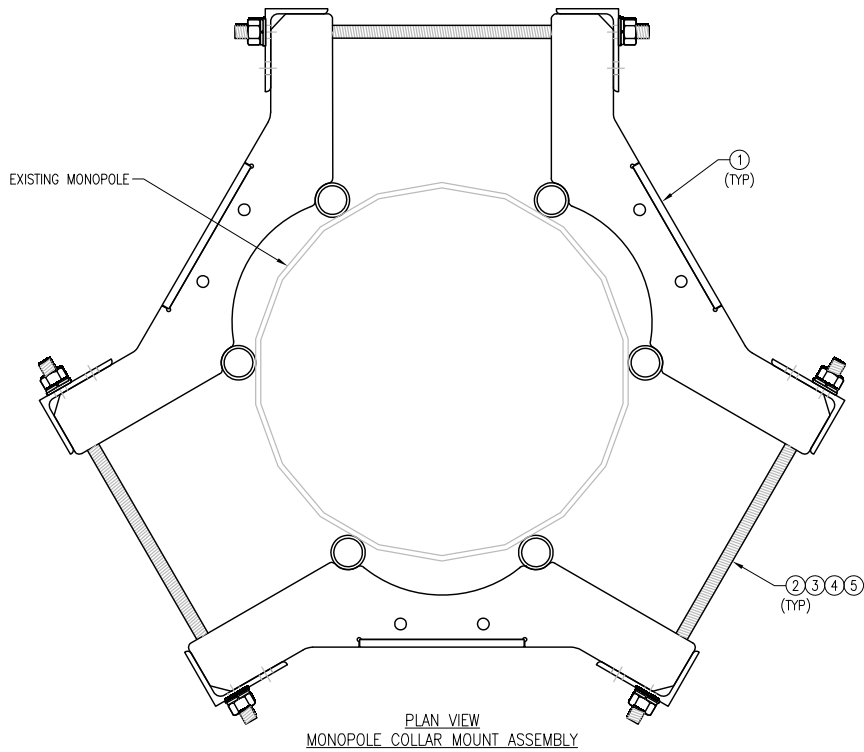
NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

VZWSMART-MSK2 (CROSSOVER PLATE)					
ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	PL375-88758	PL 3/8" X 8 7/8" X 0'-8" A36	MSK2-F1	8
2	2	MS02-625-4125-600	RU-BOLT 5/8" X 4 1/8" I.W. X 6" I.L. A36 (OR EQUIV.)	RBC-1	3
3	2	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	RBC-1	3
4	8	FW-625	5/8" HDG USS FLAT WASHER	---	1
5	8	LW-625	5/8" HDG LOCK WASHER	---	0
6	8	NUT-625	5/8" HDG HEX NUT	---	1
GALVANIZED WT					15

B-21-0444

VzW
SMART Tool®
Vendor

verizon



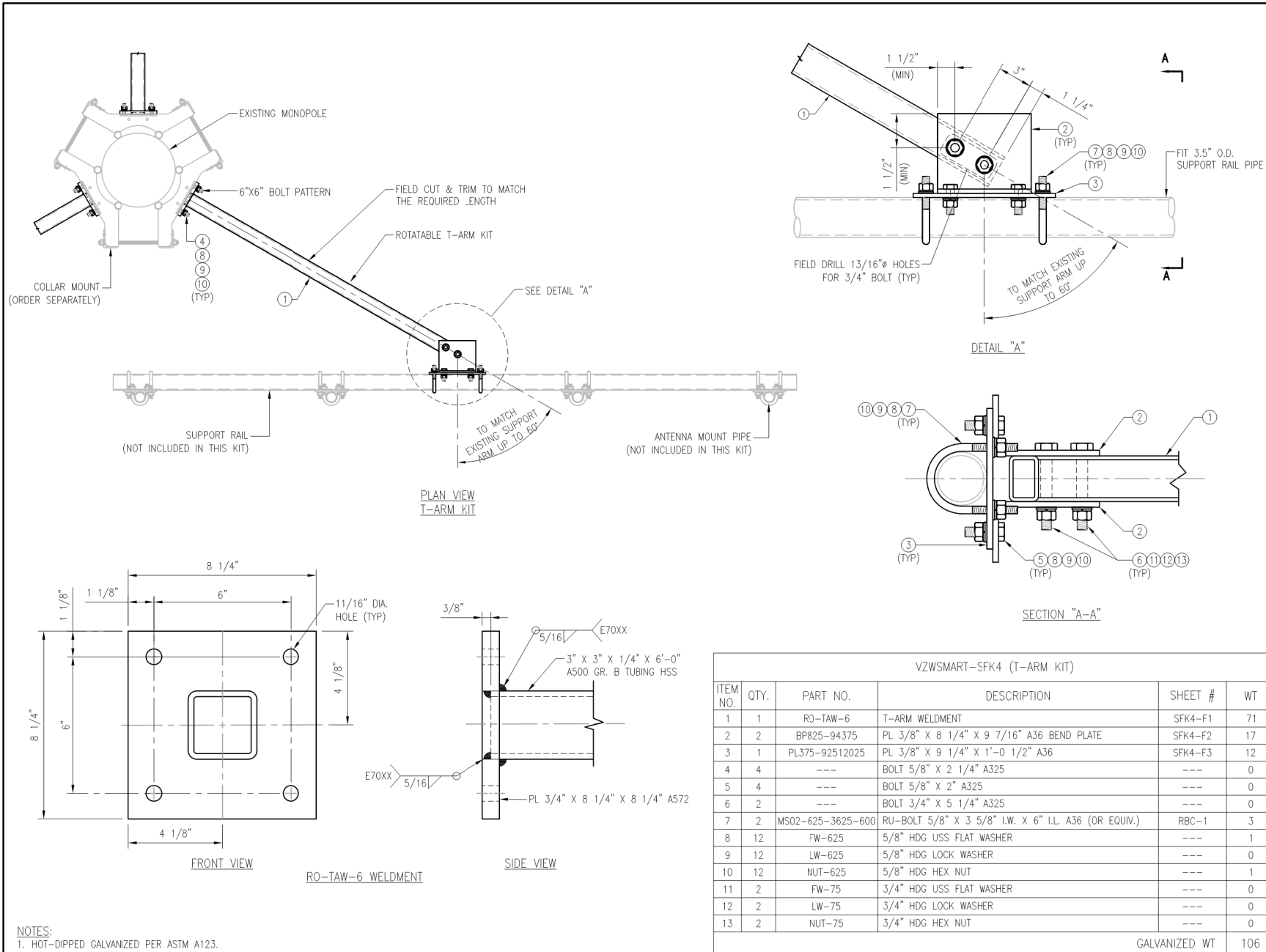
- NOTES:**
1. FIT 12" TO 45" DIA MONOPOLE.
2. HOT-DIPPED GALVANIZED PER ASTM A123.

VZWSMART-PLK7 (MONOPOLE COLLAR MOUNT ASSEMBLY)					
ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	3	CM-1245	COLLAR MOUNT ASSEMBLY	PLK7-F1	147
2	6	---	THREADED ROD 5/8" X 4'-0" A193-B7	---	---
3	12	FW-625	5/8" HDG USS FLAT WASHER	---	1
4	12	LW-625	5/8" HDG LOCK WASHER	---	0
5	12	NUT-625	5/8" HDG HEX NUT	---	1
GALVANIZED WT					150

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REV.	DESCRIPTION	BY	DATE
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SHEET TITLE:	
VZWSMART-PLK7 MONOPOLE COLLAR MOUNT ASSEMBLY	
SHEET NUMBER:	REV #:
VZWSMART-PLK7	0

B-21-0444



VzW
SMART Tool
Vendor

verizon

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4			

SHEET TITLE:
**VZW SMART-SFK4
T-ARM KIT**

SHEET NUMBER:
VZW SMART-SFK4

REV #:
0

B-21-0444