

RESOLUTION NO. 2021- 189

A RESOLUTION AUTHORIZING THE EXECUTION OF AMENDMENT NUMBER TWO TO THE CELLULAR COMMUNICATIONS LEASE AGREEMENT BY AND BETWEEN THE CITY OF VINELAND AND SPRINT SPECTRUM, L.P. FOR COMMUNICATIONS ANTENNA ARRAY LOCATED AT THE BUTLER AVENUE WATER TOWER.

WHEREAS, the City Council of the City of Vineland (hereinafter "City") has previously adopted an Ordinance authorizing the execution of a Lease Agreement dated June 6, 2001, with Sprint Spectrum, L.P. (hereinafter "Sprint") for lease of a portion of City owned property located at 382 W. Butler Avenue, Vineland, NJ, Block 7002, Lot 42, and Sprint Spectrum has since merged with T-Mobile (hereinafter "T-Mobile/Sprint" or "Carrier"); and

WHEREAS, the Carrier, T-Mobile/Sprint, has requested an amendment to the Agreement to permit the Carrier to add, modify and/or replace equipment in order to be in compliance with any present federal, state or local mandated application, including but not limited to emergency 911 communication services; and

WHEREAS, in consideration of the aforementioned modification, the Carrier shall pay a monthly rental increase of Two Hundred (\$200.00) Dollars; and

WHEREAS, the Superintendent of the Water Utility has recommended the execution of this Amendment; and

WHEREAS, the City Council finds it to be in the best interests of the City to authorize the amendment.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Vineland that the Mayor and City Clerk are authorized to execute Amendment Number Two to Lease Agreement with the Carrier, T-Mobile/Sprint, for Communication Antenna located at 382 Butler Avenue Water Tower in the form and substance attached hereto (see Exhibit A) and made a part hereof.

Adopted:

President of Council

ATTEST:

City Clerk

NOTE TO GENERAL CONTRACTOR:
NO WORK IS TO BE PERFORMED ON THIS SITE WITHOUT REVIEW OF THE APPROVED STRUCTURAL ANALYSIS. IF ANY DISCREPANCIES ARE FOUND, THE GENERAL CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING. AT NO TIME WILL ANY ADDITIONAL ANTENNAS BE INSTALLED WITHOUT WRITTEN CONSENT FROM TOWERBUILDING ENGINEER.



SITE NUMBER: 1PH4391A
SITE NAME: KEEP WHAT PL03XC017
SPRINT KEEP INSTALLATION, DESIGN 67D5A997DB 6160 (GSM ONLY)

4035 CHESTNUT STREET
 PHILADELPHIA, PA 19104
 CITY OF PHILADELPHIA
 PHILADELPHIA COUNTY



NB+C ENGINEERING SERVICES, LLC.
 1777 SENTRY PARKWAY WEST
 VEVA 17, SUITE 400
 BLUE BELL, PA 19422
 (267) 460-0122



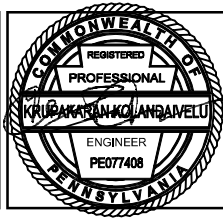
NOW PART OF T-Mobile
 TOWERBUILDING ENGINEER

475 VIRGINIA DRIVE
 FORT WASHINGTON, PA 19034

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KRUPAKARAN KOLANDAIVELU, P.E.
 COMMONWEALTH OF PENNSYLVANIA
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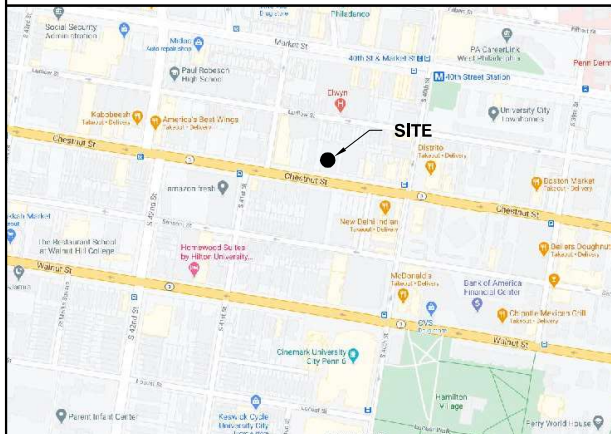
TITLE SHEET

T-1

SITE INFORMATION

LATITUDE (NAD 83): 39.95624997°
 LONGITUDE (NAD 83): -75.20368068°
 GROUND ELEVATION: 98.0 FEET (AMSL)
 CONSTRUCTION TYPE: IIB
 USE GROUP: U
 TAX ACCOUNT NUMBER: 77-3081005
 PARCEL AREA: 0.31± ACRES
 PARCEL OWNER: AMERICAN LAW INSTITUTE
 4023-4027 CHESTNUT ST
 PHILADELPHIA, PA 19104
 STRUCTURE TYPE: ROOFTOP
 PROPOSED RAD CENTER: 84'-0"
 STRUCTURE HEIGHT: 93'-3"

VICINITY MAP



SCOPE OF WORK

PROJECT CONSISTS OF INSTALLING (1) PROPOSED EQUIPMENT CABINET, (1) PROPOSED BATTERY CABINET, (1) PROPOSED PPC, (9) PROPOSED ANTENNAS, (1) PROPOSED IXRE, (1) PROPOSED SAR M ROUTER, AND (3) PROPOSED 1-5/8"Ø (6X24) HYBRID CABLES TO AN EXISTING WIRELESS TELECOMMUNICATIONS FACILITY.

PROJECT CONSISTS OF REMOVING (1) TELCO CABINET/PPC, (1) EXISTING EQUIPMENT CABINET, (1) EXISTING BATTERY CABINET WITH TOP HAT, (2) EXISTING FIBER JUNCTION BOXES, (6) EXISTING ANTENNAS, (3) EXISTING COAX CABLES, (6) EXISTING HYBRID CABLES AND (6) EXISTING RRUS FROM AN EXISTING WIRELESS TELECOMMUNICATIONS FACILITY.

CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING CODES.

- PA UCC/2015 IBC
- 2014 NATIONAL ELECTRICAL CODE
- NFPA 780, LIGHTING PROTECTION CODE
- 2009 NFPA 101, LIFE SAFETY CODE
- 2015 IFC
- AMERICAN CONCRETE INSTITUTE
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION
- MANUAL OF STEEL CONSTRUCTION 13TH EDITION
- ANS/TIA-222-G OR LATEST EDITION
- TIA 607
- INSTITUTE FOR ELECTRICAL & ELECTRONICS ENGINEER 81
- IEEE C2 NATIONAL ELECTRIC SAFETY CODE LATEST EDITION
- TELECORDIA GR-1275
- ANS/T 311
- PENNDOT PUB 213 (TEMPORARY TRAFFIC CONTROL GUIDELINES)

DRAWING INDEX

T-1	TITLE SHEET
GN-1	GENERAL NOTES
C-1	ROOFTOP PLAN
C-2	EQUIPMENT PLANS
C-3	ELEVATION
A-1	ANTENNA SCHEDULE
A-2	ANTENNA ORIENTATION PLANS
A-3	ANTENNA SPECIFICATIONS & DETAILS
A-4	EQUIPMENT SPECIFICATIONS & DETAILS
A-5	CABLING DETAIL & RF PLUMBING DIAGRAM
E-1	ELECTRICAL DETAILS
G-1	GROUNDING DETAILS

DO NOT SCALE DRAWINGS

THESE DRAWINGS ARE FORMATTED TO BE SCALED AT FULL SIZE (22"x34") AND MAY NOT SCALE WHEN PRINTED AT OTHER SIZES. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE DESIGNER/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME. CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICE TO PREVENT STORM WATER POLLUTION DURING CONSTRUCTION.

APPROVAL BLOCK

	DATE	APPROVED	APPROVED AS NOTED	DISAPPROVED/REVISE
PROPERTY OWNER	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SITE ACQUISITION	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONSTRUCTION MANAGER	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ZONING	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RF ENGINEER	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ELECTRICAL & GROUNDING NOTES

- ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
- ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
- THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
- GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
- ELECTRICAL AND TELCO WIRING AT EXPOSED INDOOR LOCATIONS SHALL BE IN ELECTRICAL METALLIC TUBING OR RIGID NONMETALLIC TUBING (RIGID SCHEDULE 40 PVC OR RIGID SCHEDULE 80 PVC FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) (AS PERMITTED BY CODE).
- ELECTRICAL AND TELCO WIRING AT CONCEALED INDOOR LOCATIONS SHALL BE IN ELECTRICAL METALLIC TUBING, ELECTRICAL NONMETALLIC TUBING, OR RIGID NONMETALLIC TUBING (RIGID SCHEDULE 40 PVC AS PERMITTED BY CODE).
- ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING, ABOVE GRADE AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS (RGS) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
- BURIED CONDUIT SHALL BE RIGID NONMETALLIC CONDUIT (RIGID SCHEDULE 40 PVC); DIRECT BURIED IN AREAS OF OCCASIONAL LIGHT TRAFFIC, ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY TRAFFIC.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT SHALL BE USED INDOORS AND OUTDOORS IN AREAS WHERE VIBRATION OCCURS AND FLEXIBILITY IS NEEDED.
- ELECTRICAL WIRING SHALL BE COPPER WITH TYPE THHN, THWN-2, OR THIN INSULATION.
- RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE PPC AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
- RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
- ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
- GROUNDING SHALL COMPLY WITH NEC ART. 250. ADDITIONALLY, GROUNDING, BONDING AND LIGHTING PROTECTION SHALL BE DONE IN ACCORDANCE WITH T-MOBILE CELL SITE GROUNDING STANDARDS.
- GROUND CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
- INSTALL #2 AWG GREEN-INSULATED STRANDED WIRE FOR ABOVE GRADE GROUNDING AND #2 BARE TINNED COPPER WIRE FOR BELOW GRADE GROUNDING UNLESS OTHERWISE NOTED.
- ALL POWER AND GROUND CONNECTIONS TO BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY HARGER (OR APPROVED EQUAL) RATED FOR OPERATION AT NO LESS THAN 75°C OR GADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
- ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF PROJECT OWNER EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDING RING.
- CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
- APPLY OXIDE INHIBITING COMPOUND TO ALL MECHANICAL GROUND CONNECTIONS.
- CONTRACTOR SHALL PROVIDE AND INSTALL OMNI DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALLS OVER EACH GROUND ROD AND BONDING POINT BETWEEN EXISTING TOWER/ MONOPOLE GROUNDING RING AND EQUIPMENT GROUNDING RING.
- CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMS MINIMUM RESISTANCE REQUIRED.
- CONTRACTOR SHALL CONDUCT ANTENNA, CABLE, AND LNA RETURN-LOSS AND DISTANCE-TO-FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE OUT.
- THE T-MOBILE ELECTRICAL EQUIPMENT INCLUDING PANEL, SWITCH GEAR AND DISCONNECT ARE TO BE LABELED WITH ENGRAVED BAKELITE LABELS.

GENERAL NOTES

- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITIES COMPANY OR OTHER PUBLIC AUTHORITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.
- THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER, IN WRITING, OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK. MINOR OMISSIONS OR ERRORS IN THE BID DOCUMENTS SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR THE OVERALL INTENT OF THESE DRAWINGS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED AS A RESULT OF CONSTRUCTION OF THIS FACILITY.
- THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING A BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- CONTRACTOR SHALL VERIFY ANTENNA ELEVATION AND AZIMUTH WITH RF ENGINEERING PRIOR TO INSTALLATION.
- ALL STRUCTURAL ELEMENTS SHALL BE HOT DIPPED GALVANIZED STEEL.
- CONTRACTOR SHALL MAKE A UTILITY "ONE CALL" TO LOCATE ALL UTILITIES PRIOR TO EXCAVATING.
- IF ANY UNDERGROUND UTILITIES OR STRUCTURES EXIST BENEATH THE PROJECT AREA, CONTRACTOR MUST LOCATE IT AND CONTACT THE APPLICANT & THE OWNER'S REPRESENTATIVE.
- OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION BY TECHNICIANS APPROXIMATELY 2 TIMES PER MONTH.
- PROPERTY LINE INFORMATION WAS PREPARED USING DEEDS, TAX MAPS, AND PLANS OF RECORD AND SHOULD NOT BE CONSTRUED AS AN ACCURATE BOUNDARY SURVEY.
- THIS PLAN IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD.
- THE PROPOSED FACILITY WILL CAUSE ONLY A "DE MINIMIS" INCREASE IN STORMWATER RUNOFF. THEREFORE, NO DRAINAGE STRUCTURES ARE PROPOSED.
- NO SIGNIFICANT NOISE, SMOKE, DUST, OR ODOR WILL RESULT FROM THIS FACILITY.
- THE FACILITY IS UNMANNED AND NOT INTENDED FOR HUMAN HABITATION (NO HANDICAP ACCESS REQUIRED).
- THE FACILITY IS UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SANITARY SERVICE.
- POWER TO THE FACILITY WILL BE MONITORED BY A SEPARATE METER.

STRUCTURAL NOTES

- THE STRUCTURAL STEEL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ANCHOR BOLT LOCATIONS, ELEVATION OF TOP OF CONCRETE AND BEARING PLATES, ALIGNMENT ETC. PRIOR TO START OF STEEL ERECTION.
- THE LATEST EDITION OF THE FOLLOWING SPECIFICATIONS SHALL GOVERN:
 - A. AISC - "ALLOWABLE STRESS DESIGN SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS".
 - B. AISC - "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
 - C. AWS - "D1.1 STRUCTURAL WELDING CODE - STEEL".
- MATERIAL, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS

STRUCTURAL WIDE FLANGE & M SHAPES	A992 OR A572 FY = 50KSI
OTHER STRUCTURAL SHAPES AND PLATES	A36, FY = 36 KSI STRUCTURAL TUBING A500, GRADE B
HIGH STRENGTH BOLTS	FY = 46 KSI
THREADED BOLTS	A325
ANCHOR BOLTS	A354, GRADE BC
PIPE (HANDRAIL)	A325 OR A354 BC SCH 40 PIPE
- ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 USING E70XX ELECTRODES. UNLESS OTHERWISE NOTED PROVIDE CONTINUOUS MINIMUM SIZED FILLET WELDS PER AISC REQUIREMENTS.
- HOLES IN STEEL SHALL BE DRILLED OR PUNCHED. ALL SLOTTED HOLES SHALL BE PROVIDED WITH SMOOTH EDGES. BURNING OF HOLES AND TORCH CUTTING AT THE SITE IS NOT PERMITTED. ALL HOLES IN BEARING PLATES SHALL BE DRILLED.
- ALL STEEL TO BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123.
- EPOXY ANCHORS TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
- ALL BOLTS SHALL BE TIGHTENED USING TURN-OF-THE-NUT METHOD PER AISC SPECIFICATIONS USING STANDARD HOLES.
- CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND FIT PRIOR TO FABRICATION.



NB+C ENGINEERING SERVICES, LLC.
1772 SENTRY PARKWAY WEST
VEVA 17, SUITE 400
BLUE HILL, PA 19222
(617) 464-0122

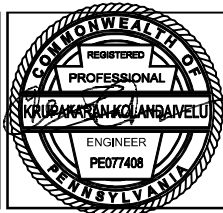


NOW PART OF **T-Mobile**
T-Mobile U.S.

475 VIRGINIA DRIVE
FORT WASHINGTON, PA 19034

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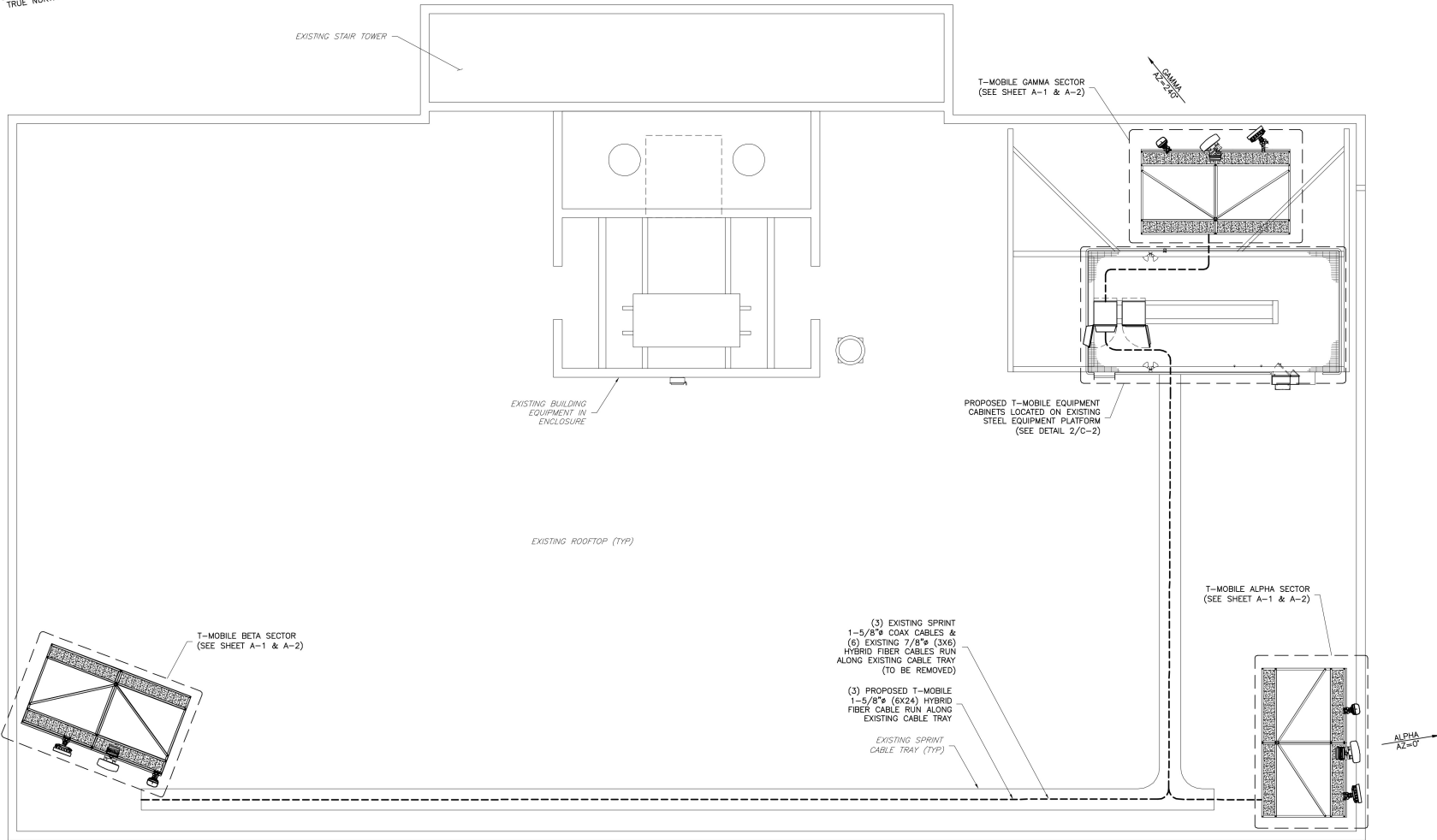
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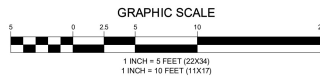
KRUPAKARAN KOLANIDAVELLU, P.E.
COMMONWEALTH OF PENNSYLVANIA
PROFESSIONAL ENGINEER
LICENSE #077408

GENERAL NOTES

GN-1



1 ROOFTOP PLAN
SCALE: 1" = 5' (22X34)
SCALE: 1" = 10' (11X17)



ENGINEERING FIRM

NB+C
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.
1777 SENTRY PARKWAY WEST
VEVA 17, SUITE 400
BLUE HILL, PA 19422
(287) 460-0122

APPLICANT

Sprint

NOW PART OF T-Mobile

475 VIRGINIA DRIVE
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PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER
KRUPAKARAN K. LANDAIVELU
ENGINEER
PE077408

ENGINEER

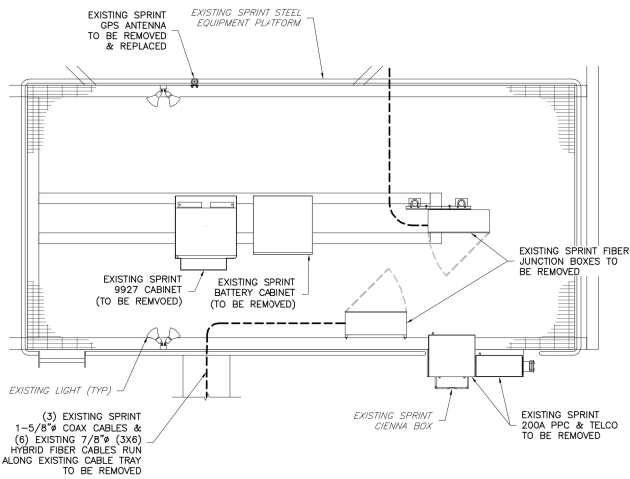
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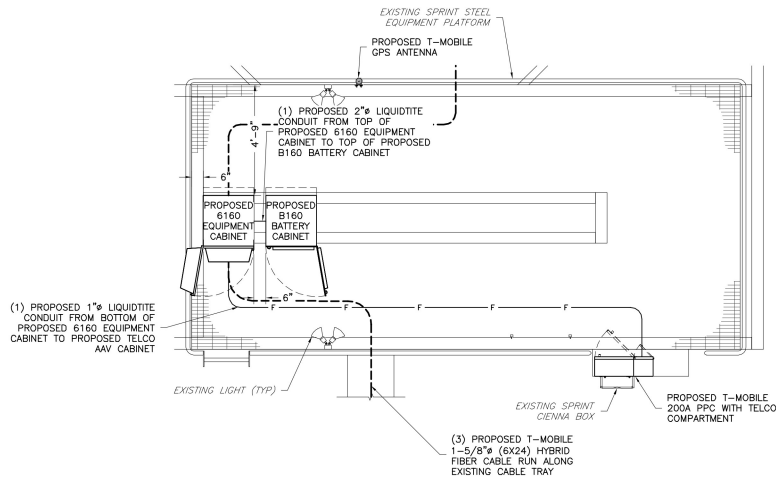
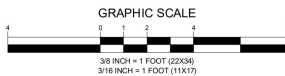
ROOFTOP PLAN

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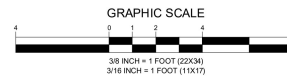
C-1



1 EXISTING EQUIPMENT PLAN
 SCALE: 3/8" = 1' (22X34)
 SCALE: 3/16" = 1' (11X17)



2 PROPOSED EQUIPMENT PLAN
 SCALE: 3/8" = 1' (22X34)
 SCALE: 3/16" = 1' (11X17)



ENGINEERING FIRM



APPLICANT



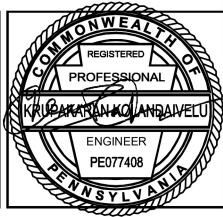
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ENGINEER

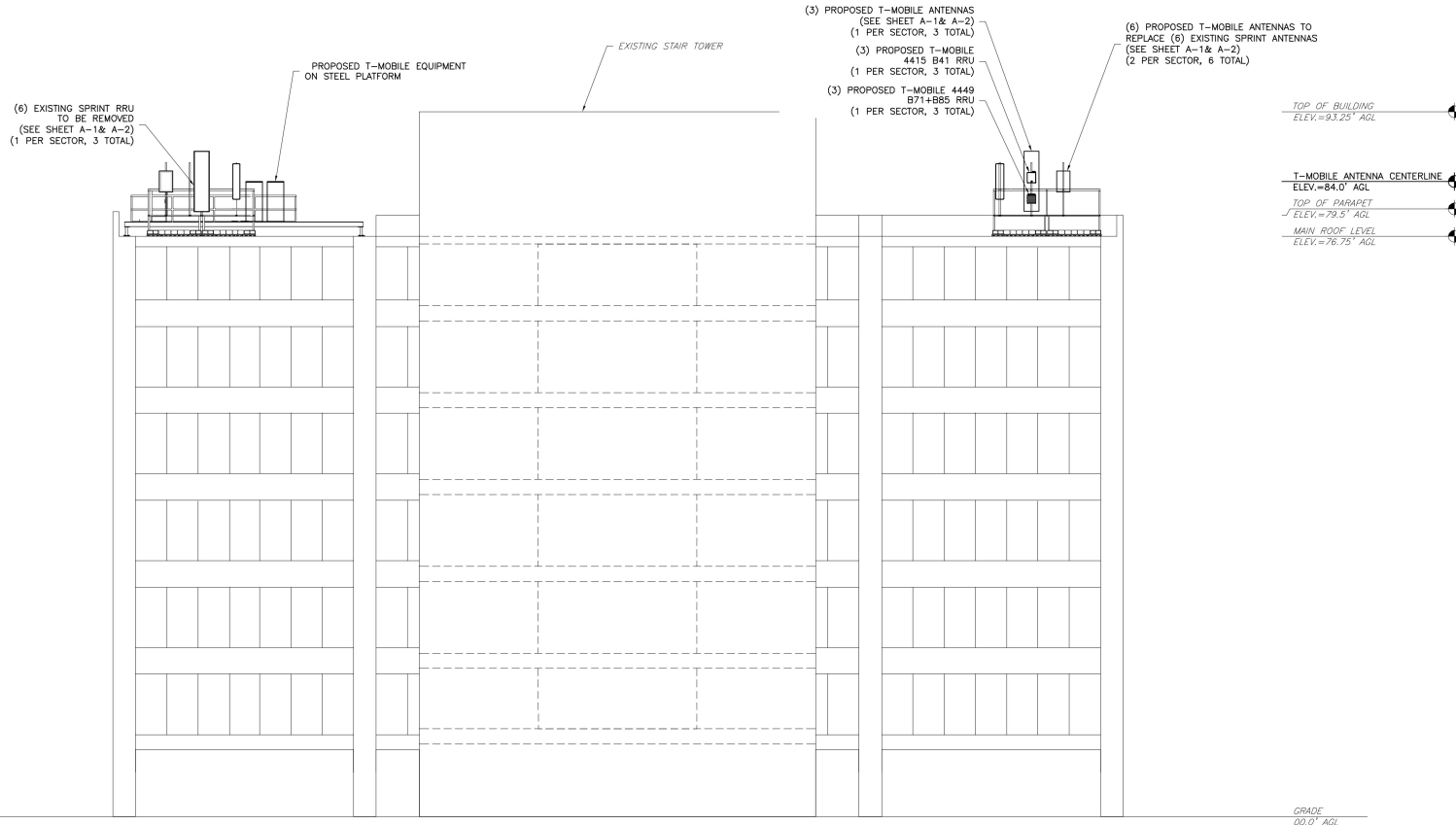
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SHEET TITLE

EQUIPMENT PLANS

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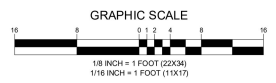
C-2



GENERAL ANTENNA NOTES

- ALL ANTENNAS TO BE FURNISHED WITH DOWNTILT BRACKETS. CONTRACTOR TO COORDINATE REQUIRED MECHANICAL DOWNTILT FOR EACH ANTENNA WITH RF ENGINEER.
- ANTENNA CENTERLINE HEIGHT IS IN REFERENCE TO ELEVATION 0.0'.
- CHECK WITH RF ENGINEER FOR LATEST ANTENNA TYPE & AZIMUTH.
- CONTRACTOR SHALL VERIFY ANTENNA TYPE AND AZIMUTH WITH CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
- ALL CABLE LENGTHS ARE ESTIMATED AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
- COLOR TAPE MARKINGS MUST BE 3/4" WIDE AND UV RESISTANT, SUCH AS SCOTCH 35 VINYL ELECTRICAL COLOR CODING TAPE.
- CONTRACTOR SHALL COORDINATE COLOR CODINGS IN THE FIELD WITH T-MOBILE REPRESENTATIVE.
- A STRUCTURAL ANALYSIS REPORT HAS BEEN ISSUED BY NB+C ENGINEERING SERVICES, LLC, DATED 12/30/2020 TO CERTIFY THAT THE EXISTING/PROPOSED COMMUNICATION STRUCTURE AND COMPONENTS ARE STRUCTURALLY ADEQUATE TO SUPPORT ALL EXISTING AND PROPOSED ANTENNAS, COAXIAL CABLES AND OTHER APPURTENANCES.
- A MOUNT ANALYSIS REPORT HAS BEEN ISSUED BY NB+C ENGINEERING SERVICES, LLC, DATED 12/30/2020 TO CERTIFY THAT THE EXISTING/PROPOSED COMMUNICATION STRUCTURE AND COMPONENTS ARE STRUCTURALLY ADEQUATE TO SUPPORT ALL EXISTING AND PROPOSED ANTENNAS, COAXIAL CABLES AND OTHER APPURTENANCES.

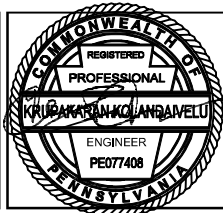
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ENGINEERING FIRM																			
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DESIGN RECORD	<table border="1"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>02/24/21</td> <td>FINAL CDs</td> <td>JF</td> </tr> <tr> <td>1</td> <td>01/28/21</td> <td>REVISED PER LATEST RFDS</td> <td>DH</td> </tr> <tr> <td>0</td> <td>11/09/20</td> <td>PRELIMINARY CDs</td> <td>TR</td> </tr> </tbody> </table>			REV	DATE	DESCRIPTION	BY	2	02/24/21	FINAL CDs	JF	1	01/28/21	REVISED PER LATEST RFDS	DH	0	11/09/20	PRELIMINARY CDs	TR
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SHEET TITLE	ELEVATION																		
SHEET NUMBER	C-3																		

LAST PLOTTED: 02/26/2021 1:13 PM

REVISIONS			
REV	DATE	DESCRIPTION	BY
2	02/24/21	FINAL CDs	JF
1	01/29/21	REVISED PER LATEST RFS	DH
0	11/09/20	PRELIMINARY CDs	TR



ENGINEER
KRUPAKARAN KOLANDAIVELU, P.E.
COMMONWEALTH OF PENNSYLVANIA
PROFESSIONAL ENGINEER
LICENSE #077408

SHEET TITLE
ANTENNA SCHEDULE

SHEET NUMBER
A-1

ANTENNA SCHEDULE

SECTOR	STATUS	TECHNOLOGY				ANTENNA MANUFACTURER	ANTENNA MODEL	ANTENNA DIMENSIONS (HxWxD)	RAD CENTER	AZIMUTH	ELEG DOWNTILT	MECH DOWNTILT	RRU QUANTITY & MODEL	TMA/DIPLER QUANTITY & MODEL	CABLE QUANTITY & TYPE	CABLE LENGTH
A1	PROPOSED	L2100	L2100	G1900 L1900	G1900 L1900	ERICSSON	AIR32 KRD901146-1_B66A_B2A	56.60"x12.90"x8.70"	84.00'	0°	Z'/Z'/Z'	0°	-	-	(1) PROPOSED 1-5/8" (6x24) HYBRID CABLE	80'±
A2	PROPOSED	L700 N600	L600	L1900	L1900	RFS	APXVALL24_43-U-NA20	95.90"x24.00"x8.50"	84.00'	0°	Z'/Z'	0°	(1) PROPOSED T-MOBILE 4415 B25 RRU (1) PROPOSED T-MOBILE 4449 B71+B85 RRU	-		
A3	PROPOSED	L2500+N2500	L2500+N2500			ERICSSON	AIR6449_B41	33.00"x20.60"x8.60"	84.00'	0°	Z'/Z'	0°	-	-		

B1	PROPOSED	L2100	L2100	G1900 L1900	G1900 L1900	ERICSSON	AIR32 KRD901146-1_B66A_B2A	56.60"x12.90"x8.70"	84.00'	120°	Z'/Z'/Z'	0°	-	-	(1) PROPOSED 1-5/8" (6x24) HYBRID CABLE	200'±
B2	PROPOSED	L700 N600	L600	L1900	L1900	RFS	APXVALL24_43-U-NA20	95.90"x24.00"x8.50"	84.00'	120°	Z'/Z'	0°	(1) PROPOSED T-MOBILE 4415 B25 RRU (1) PROPOSED T-MOBILE 4449 B71+B85 RRU	-		
B3	PROPOSED	L2500+N2500	L2500+N2500			ERICSSON	AIR6449_B41	33.00"x20.60"x8.60"	84.00'	120°	Z'/Z'	0°	-	-		

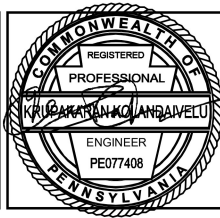
C1	PROPOSED	L2100	L2100	G1900 L1900	G1900 L1900	ERICSSON	AIR32 KRD901146-1_B66A_B2A	56.60"x12.90"x8.70"	84.00'	240°	Z'/Z'/Z'	0°	-	-	(1) PROPOSED 1-5/8" (6x24) HYBRID CABLE	60'±
C2	PROPOSED	L700 N600	L600	L1900	L1900	RFS	APXVALL24_43-U-NA20	95.90"x24.00"x8.50"	84.00'	240°	Z'/Z'	0°	(1) PROPOSED T-MOBILE 4415 B25 RRU (1) PROPOSED T-MOBILE 4449 B71+B85 RRU	-		
C3	PROPOSED	L2500+N2500	L2500+N2500			ERICSSON	AIR6449_B41	33.00"x20.60"x8.60"	84.00'	240°	Z'/Z'	0°	-	-		

NOTES:
1. PLANS PREPARED PER RF SHEET DATED 12/11/2020. CONTRACTOR TO VERIFY PROPOSED ANTENNA INFORMATION IS THE MOST CURRENT DATA AT TIME OF CONSTRUCTION.
2. CONTRACTOR TO CONFIRM CABLE LENGTHS PRIOR TO CONSTRUCTION.

1 ANTENNA CONFIGURATION SCHEDULE
A-1 NOT TO SCALE

REVISIONS

REV	DATE	DESCRIPTION	BY
2	02/24/21	FINAL CD6	JF
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PROFESSIONAL ENGINEER
LICENSE #077408

ANTENNA ORIENTATION PLANS

A-2

ENGINEERING FIRM

APPLICANT

SITE INFORMATION

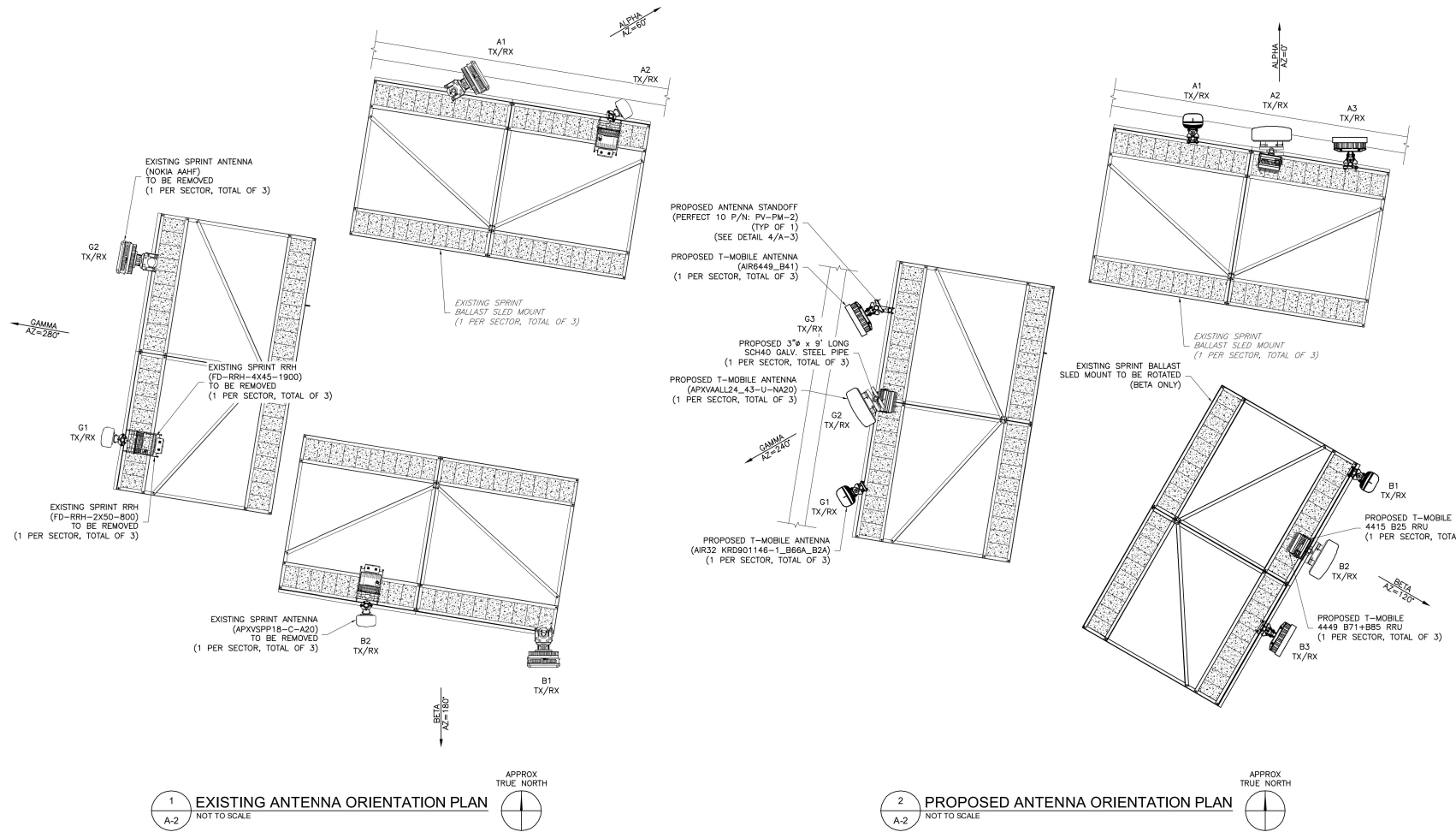
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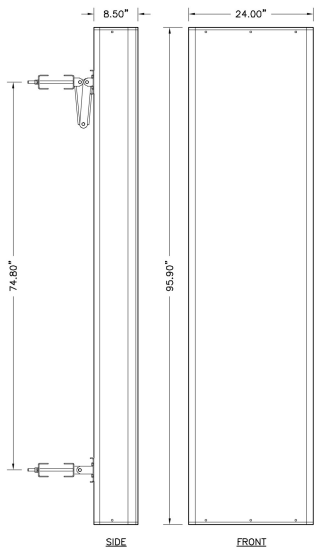
PROFESSIONAL STAMP

ENGINEER

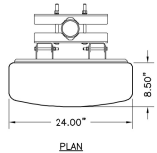
SHEET TITLE

SHEET NUMBER

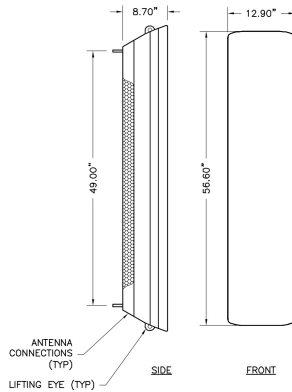




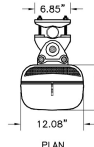
1 RFS PANEL ANTENNA
A-3 NOT TO SCALE



MECHANICAL SPECIFICATIONS
RFS: APXVAAL24_43-U-NA20
HEIGHT: 95.90 IN
WIDTH: 24.00 IN
DEPTH: 8.50 IN
WEIGHT: 122.80 LBS

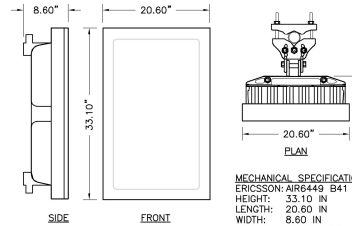


2 ERICSSON PANEL ANTENNA
A-3 NOT TO SCALE



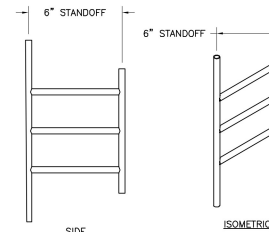
PROPOSED AIR CLAMP KIT
(KATHREIN PART# 85010070)

MECHANICAL SPECIFICATIONS
ERICSSON: KR0901146-1
HEIGHT: 56.60 IN
WIDTH: 12.90 IN
DEPTH: 8.70 IN
WEIGHT: 132.20 LBS

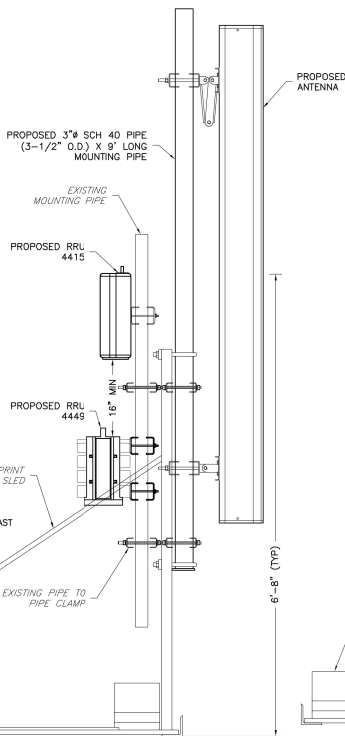


MECHANICAL SPECIFICATIONS
ERICSSON: AIR6449 B41
HEIGHT: 33.10 IN
LENGTH: 20.60 IN
WIDTH: 8.60 IN
WEIGHT: 104.00 LBS

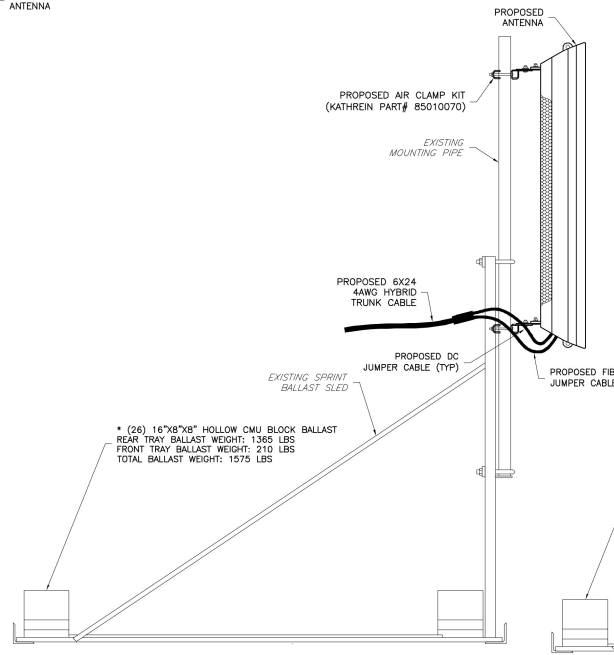
3 ERICSSON PANEL ANTENNA
A-3 NOT TO SCALE



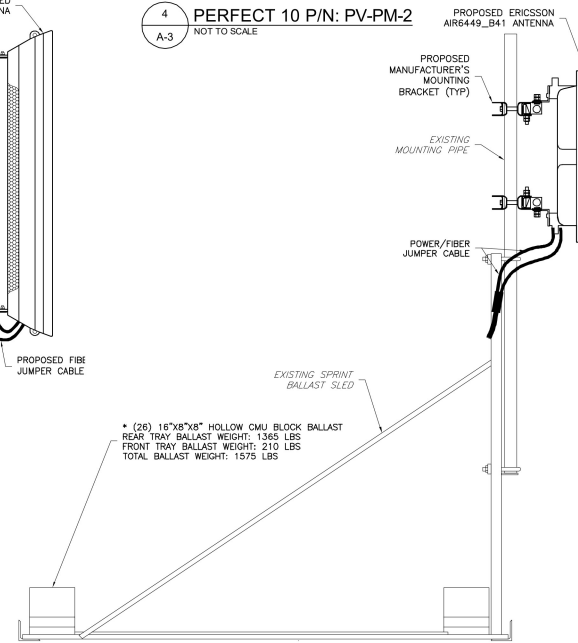
4 PERFECT 10 P/N: PV-PM-2
A-3 NOT TO SCALE



5 ANTENNA MOUNTING DETAIL
A-3 NOT TO SCALE



6 ANTENNA MOUNTING DETAIL
A-3 NOT TO SCALE



7 ANTENNA MOUNTING DETAIL
A-3 NOT TO SCALE

ENGINEERING FIRM

NB+C
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.
1777 SENTRY PARKWAY WEST
VEVA 17, SUITE 400
BLUE HILL, PA 19222
(267) 460-0122

APPLICANT

Sprint

NOW PART OF **T-Mobile**

475 VIRGINIA DRIVE
FORT WASHINGTON, PA 19034

SITE INFORMATION

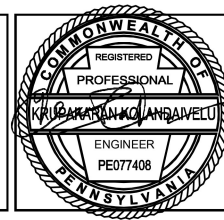
1PH4391A
KEEP WHAT_PL03XC017
4035 CHESTNUT ST
PHILADELPHIA, PA 19104
CITY OF PHILADELPHIA
PHILADELPHIA COUNTY

DESIGN RECORD

REVISIONS

REV	DATE	DESCRIPTION	BY
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PROFESSIONAL STAMP



ENGINEER

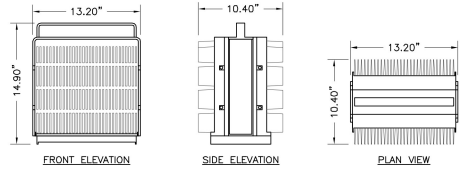
KRUPAKARAN KOLANIDAVELU, P.E.
COMMONWEALTH OF PENNSYLVANIA
PROFESSIONAL ENGINEER
LICENSE #077408

SHEET TITLE

ANTENNA SPECIFICATIONS & DETAILS

SHEET NUMBER

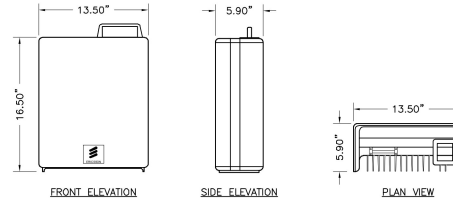
A-3



SIZE AND WEIGHT TABLE				
MANUFACTURER & MODEL NUMBER	HEIGHT	WIDTH	DEPTH	WEIGHT WITHOUT BRACKET
ERICSSON 4449 B71+B85	14.90"	13.20"	10.40"	74.00 LBS

NOTE:
DO NOT PAINT THE RRU. RRU SOLAR SHIELD CAN BE PAINTED PER MANUFACTURER'S METHOD OF PROCEDURE.

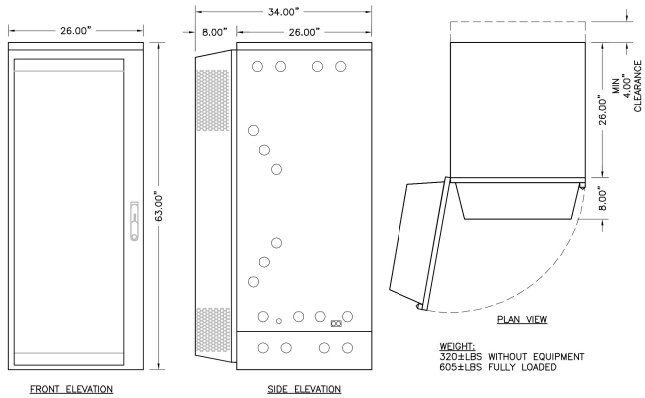
1 REMOTE RADIO UNIT (RRU)
A-4 NOT TO SCALE



SIZE AND WEIGHT TABLE				
MANUFACTURER & MODEL NUMBER	HEIGHT	WIDTH	DEPTH	WEIGHT WITHOUT BRACKET
ERICSSON 4415	16.50"	13.50"	5.90"	46.00 LBS

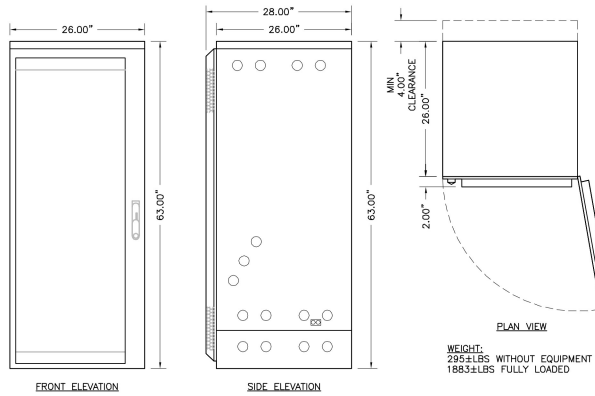
NOTE:
DO NOT PAINT THE RRU. RRU SOLAR SHIELD CAN BE PAINTED PER MANUFACTURER'S METHOD OF PROCEDURE.

2 REMOTE RADIO UNIT (RRU)
A-4 NOT TO SCALE



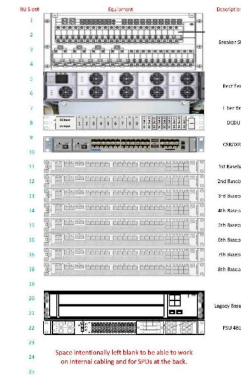
WEIGHT:
320±LBS WITHOUT EQUIPMENT
605±LBS FULLY LOADED

3 6160 ENCLOSURE CABINET
A-4 NOT TO SCALE



WEIGHT:
295±LBS WITHOUT EQUIPMENT
1863±LBS FULLY LOADED

4 B160 BATTERY CABINET
A-4 NOT TO SCALE



5 6160 CABINET INTERNAL LAYOUT
A-4 NOT TO SCALE

ENGINEERING FIRM

NB+C
TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.
1777 SENTRY PARKWAY WEST
VEVA 17, SUITE 400
BLUE HILL, PA 19022
(267) 460-0122

APPLICANT

Sprint
NOW PART OF **T-Mobile**
T-MOBILE NORTH-EAST LLC
475 VIRGINIA DRIVE
FORT WASHINGTON, PA 19034

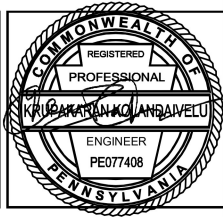
SITE INFORMATION

1PH4391A
KEEP WHAT_PL03XC017
4035 CHESTNUT ST
PHILADELPHIA, PA 19104
CITY OF PHILADELPHIA
PHILADELPHIA COUNTY

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PROFESSIONAL STAMP



ENGINEER

KRUPAKARAN KOLANDAIVELU, P.E.
COMMONWEALTH OF PENNSYLVANIA
PROFESSIONAL ENGINEER
LICENSE #077408

SHEET TITLE

EQUIPMENT SPECIFICATIONS & DETAILS

SHEET NUMBER

A-4

ENGINEERING FIRM

APPLICANT

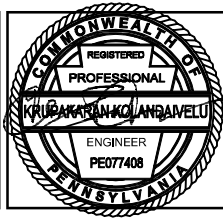
SITE INFORMATION

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PROFESSIONAL STAMP



ENGINEER

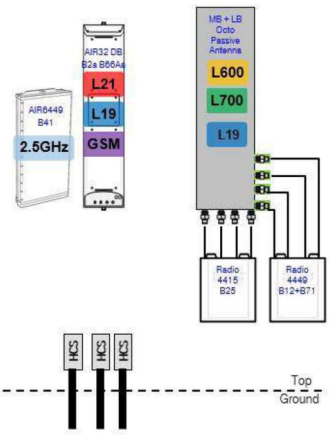
KRUPAKARAN KOLANDAIVELU, P.E.
COMMONWEALTH OF PENNSYLVANIA
PROFESSIONAL ENGINEER
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SHEET TITLE

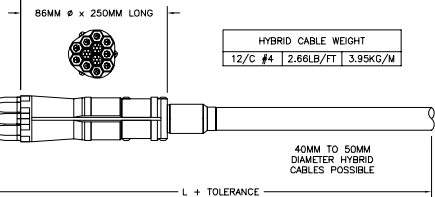
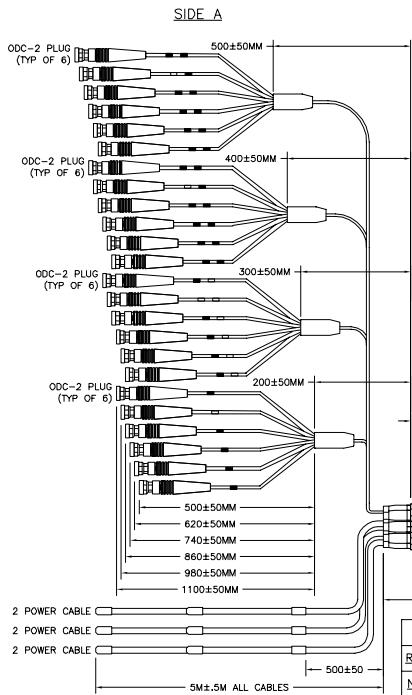
**CABLING DETAILS
& RF PLUMBING
DIAGRAM**

SHEET NUMBER

A-5



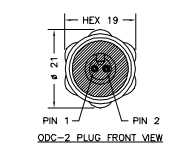
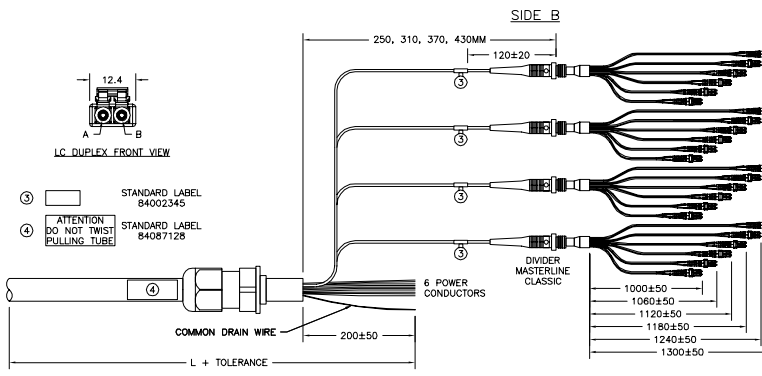
1 67D5A997DB 6160 (GSM ONLY) ANTENNA AND CABLING SCHEMATIC
A-5 NOT TO SCALE



FIBER OPTIC						
RRH NO.	SIDE A	SIDE B		LENGTH SIDE B	RUBBER GROMMETS	
1	ODC-2 RED	1	B	RED (SHORT BREAKOUT)	1000 ± 50	1
2	ODC-2 GREEN	2	A	GREEN	1060 ± 50	
3	ODC-2 BLUE	1	B	BLUE	1120 ± 50	
4	ODC-2 YELLOW	2	A	YELLOW	1180 ± 50	1
5	ODC-2 WHITE	2	A	WHITE	1240 ± 50	
6	ODC-2 BLACK	1	B	BLACK	1300 ± 50	1

POWER					
RRH NO.	REF HOOK UP	WIRE COLOR	CABLE DESIGNATOR	SIDE A	SIDE B
1	-48V	BLACK	RED	RED	RED
	0V	GREY	RED	BLACK	BLACK
2	-48V	BLACK	GREEN	GREEN	GREEN
	0V	GREY	GREEN	WHITE	WHITE
3	-48V	BLACK	BLUE	BLUE	BLUE
	0V	GREY	BLUE	ORANGE	ORANGE

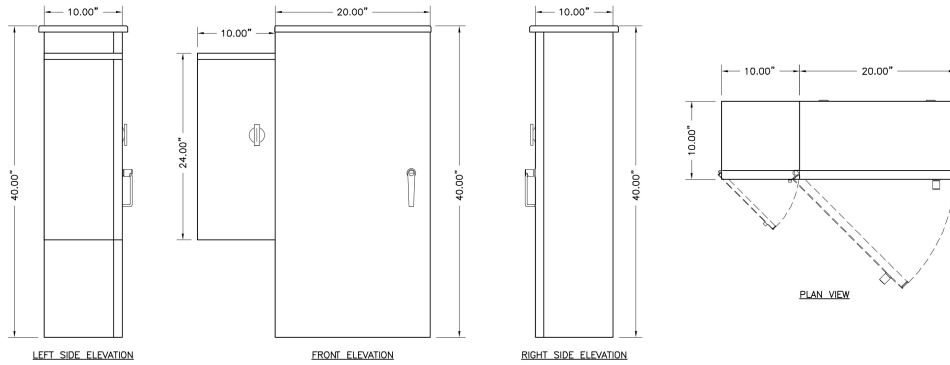
POWER					
RRH NO.	REF HOOK UP	WIRE COLOR	CABLE DESIGNATOR	SIDE A	SIDE B
4	-48V	BLACK	YELLOW	YELLOW	YELLOW
	0V	GREY	YELLOW	BLACK	BLACK
5	-48V	BLACK	WHITE	WHITE	WHITE
	0V	GREY	WHITE	COMMON DRAIN	COMMON DRAIN
6	-48V	BLACK	BLACK	BLACK	BLACK
	0V	GREY	BLACK	COMMON DRAIN	COMMON DRAIN



TOLERANCE	ASSEMBLY LENGTH
+80	L < 5M
+2%	L ≥ 5M

POWER	DIAMETER
L < 60M	6MM ² (10AWG)
L ≥ 60M	10MM ² (8AWG)

2 MLE HYBRID CABLE (6 POWER/24 FIBER)
A-5 NOT TO SCALE

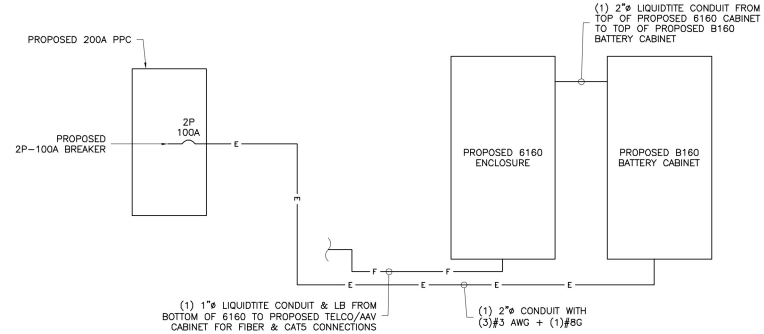


PPC SPECIFICATIONS:
 CABINET TYPE: UL TYPE NEMA 3R
 MATERIAL: 0.1" THICK ALUMINUM WITH POWDER COATING
 TOTAL WEIGHT: APPROXIMATELY 75 LBS
 UL: LISTED TO UL 891
 SERVICE: 120/240V, 1 PHASE, 3 WIRE, 200 AMP
 GENERATOR INTERFACE: PANTRUL PANLOC (LEFT MOUNT)
 LOAD CENTER: 200A, 24 POSITION SQUARE D (QO SERIES)

1 DELTA 200A PPC WITH TELCO COMPARTMENT
 E-1 NOT TO SCALE

PROPOSED PPC PANEL														
MAIN BREAKER RATING (A):			200			SYSTEM VOLTAGE (V):			240			PHASE: 1 WIRE: 3 BRANCH CB: 24		
C K T	CIRCUIT DESCRIPTION	WATTAGE		POLE	B R K	LOAD PER PHASE		B R K	POLE	WATTAGE		CIRCUIT DESCRIPTION	C K T	
		C	NC			A	B			NC	C			
1		0	0			0				0	0		2	
3		0	0			0		60	2	0	0	SURGE PROTECTOR	4	
5		0	0			180		20	1	180	0	**6160 GFCI	6	
7		0	0				360	20	1	360	0	LIGHTS	8	
9	*6160	6453	0	2	100	6633		15	1	180	0	LF1	10	
11		6453	0				6813	20	1	360	0	TELCO FAN	12	
13		0	0			0				0	0		14	
15		0	0			0				0	0		16	
17		0	0			0				0	0		18	
19		0	0			0				0	0		20	
21		0	0			0				0	0		22	
23		0	0			0				0	0		24	
						TOTAL LOADS PER PHASE								
NOTES						6813	7173							
*INSTALL (1) NEW 2P-100A BREAKER FOR PROPOSED 6160						SUBTOTAL CONTINUOUS		125% TOTAL CONTINUOUS (VA)		16133				
**INSTALL (1) NEW 1P-20A BREAKER FOR PROPOSED 6160 GFCI						12906		100% TOTAL NON-CONTINUOUS (VA)		1080				
***WATTAGE SHOWN FOR EXISTING/PROPOSED EQUIPMENT CABINET(S) ARE BASED ON THE CONNECTED EQUIPMENT PER THE LATEST RFDS						SUBTOTAL NON-CONTINUOUS		TOTAL AMPS		71.72				
						1080		TOTAL CONNECTED LOAD (KVA)		17.21				
								SPARE CAPACITY (A)		128.28				

2 PANEL SCHEDULE
 E-1 NOT TO SCALE



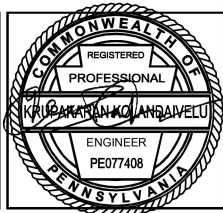
3 POWER DIAGRAM
 E-1 NOT TO SCALE

NB+C
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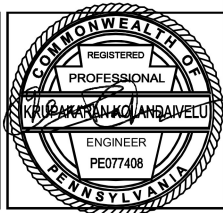
KRUPAKARAN KOLANDAIVELU, P.E.
 COMMONWEALTH OF PENNSYLVANIA
 PROFESSIONAL ENGINEER
 LICENSE #077408

ELECTRICAL DETAILS

E-1

LAST PLOTTED: 02/26/2021 1:14 PM

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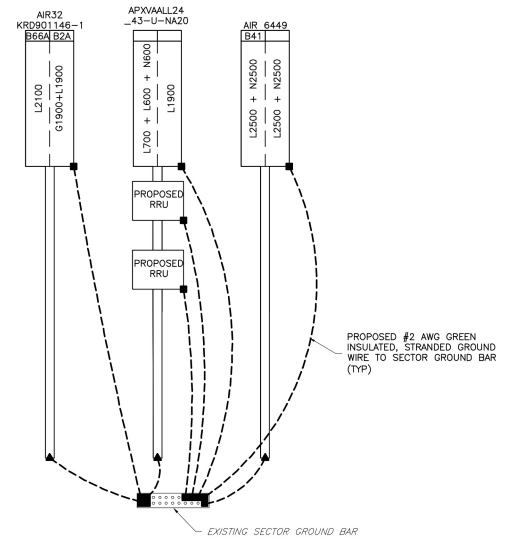


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 COMMONWEALTH OF PENNSYLVANIA
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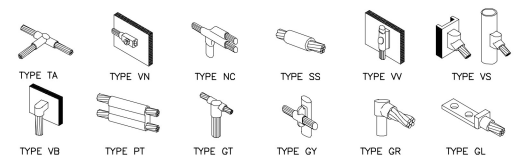
SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER
G-1

TYPICAL PER SECTOR



1 ANTENNA GROUNDING DETAIL
 NOT TO SCALE



2 GROUNDING CONNECTION DETAILS
 NOT TO SCALE

GROUNDING LEGEND	
■	MECHANICAL COMPRESSION CONNECTION
▲	CADWELD CONNECTION
●	EXOTHERMIC WELD CONNECTION
---	PROPOSED GROUND WIRING
---	EXISTING GROUND WIRING