



SITE NUMBER: 7CMB072A
SITE NAME: KEYSER WATER TANK

A STREET
KEYSER, WV 26726

NSB DESIGN 67D5A998E 6160



SITE INFORMATION

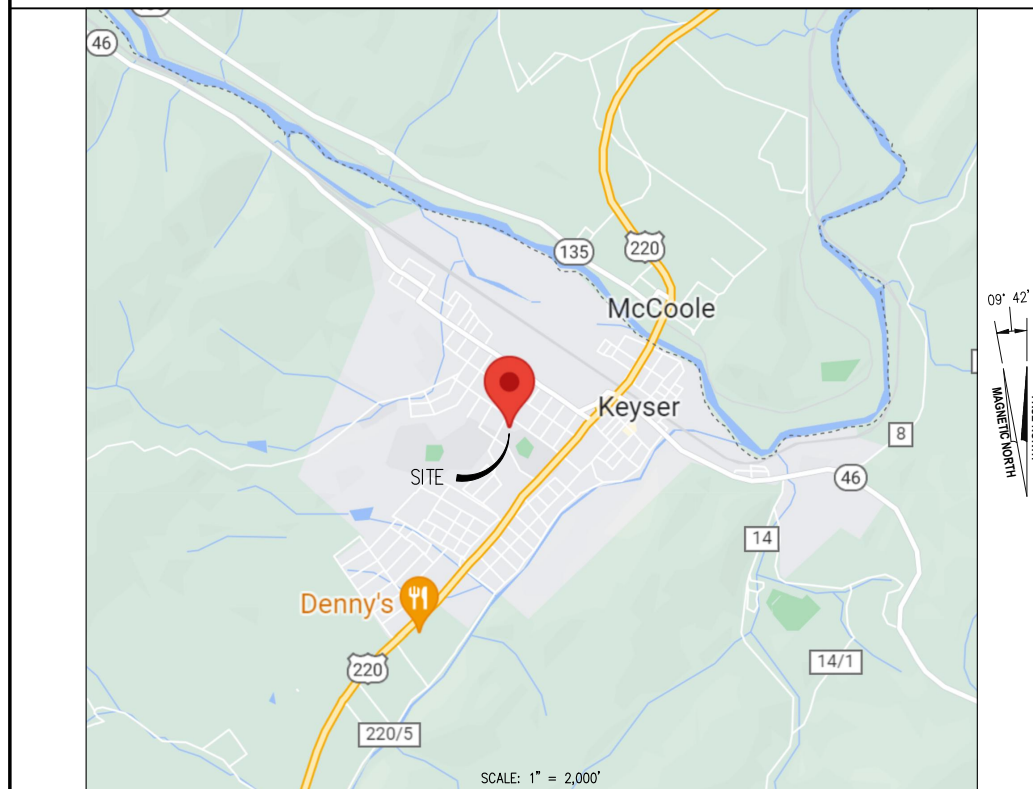
SCOPE OF WORK:

1. INSTALL (10) NEW ANTENNA SUPPORT PIPES ON EXISTING WATER TANK
2. INSTALL (3) NEW RFS APXVAALL24 ANTENNAS ON NEW SUPPORT PIPES AT ELEVATION 84'-0" (1 PER SECTOR)
3. INSTALL (3) NEW ERICSSON AIR6419 ANTENNAS ON NEW SUPPORT PIPES AT ELEVATION 86'-6" (1 PER SECTOR)
4. INSTALL (3) NEW COMSCOPE VV-65A-R1 ANTENNAS ON NEW SUPPORT PIPES AT ELEVATION 85'-9" (1 PER SECTOR)
5. INSTALL (3) NEW RADIO 4460 B71+B85 ON NEW SUPPORT PIPES (1 PER SECTOR)
6. INSTALL (3) NEW RADIO 4460 B25+B66 ON NEW SUPPORT PIPES (1 PER SECTOR)
7. INSTALL (1) NEW MICROWAVE ANTENNA ON NEW SUPPORT PIPE
8. INSTALL (1) NEW ERICSSON 6160 CABINET, (1) B160 CABINET & (1) NEW GENERATOR ON NEW 20' X 10' CONCRETE PAD
9. INSTALL (1) NEW ATS, (1) NEW PPC CABINET & (1) NEW EMERSON CUBE TELCO CABINET NEW UTILITY BACKBOARD
10. INSTALL NEW ICEBRIDGE BETWEEN NEW 20' X 10' CONCRETE PAD AND EXSITING WATER TANK
11. INSTALL (3) NEW HYBRID CABLES FROM EQUIPMENT TO NEW ANTENNAS
12. INSTALL NEW GROUND RING, GROUND BARS, GROUND RODS AND ALL ASSOCIATED ACCESSORIES

JURISDICTION: CITY OF KEYSER, MINERAL COUNTY, WV
 PARCEL ID: 29-07-0006-0196-0000
 PARCEL AREA: 0.56544 ACRES
 PARCEL OWNER: CITY OF KEYSER
 OWNER ADDRESS: 111 N DAVIS ST, KEYSER, WV 26726
 GROUND ELEVATION: 944.2 FT (A.M.S.L.)
 LATITUDE: N 39.4398819°
 LONGITUDE: W 78.9836408°

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 ENGINEER IN WRITING. AT NO TIME WILL ANY ADDITIONAL ANTENNAS BE INSTALLED WITHOUT WRITTEN CONSENT FROM TOWER ENGINEER.

VICINITY MAP



SHEET INDEX

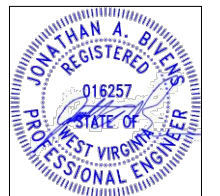
- T-1 TITLE SHEET
- N-1 GENERAL NOTES
- C-1 SITE PLAN
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- S-2 ANTENNA & RRU DETAILS
- S-3 ANTENNA LAYOUT PLAN AND SECTIONS
- S-4 EQUIPMENT LAYOUT PLANS AND DETAILS
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- E-1 ELECTRICAL PLAN & PANEL SCHEDULE
- E-2 POWER DIAGRAMS AND DETAIL
- E-3 GROUNDING DIAGRAMS AND DETAILS

DIRECTIONS TO SITE

1. HEAD SOUTHEAST TOWARD US-1 N, TURN LEFT ONTO US-1 N, USE THE LEFT 2 LANES TO TURN LEFT ONTO THE MD-200 W RAMP TO I-95/I-270
2. CONTINUE ONTO MD-200 W, CONTINUE ONTO I-370 W, TAKE THE EXIT ONTO I-270 N TOWARD FREDERICK
3. TAKE THE EXIT ON THE LEFT TO STAY ON I-270 N TOWARD FREDERICK, USE THE RIGHT 2 LANES TO TAKE EXIT 32 TO MERGE ONTO I-70 W TOWARD HAGERSTOWN
4. TAKE EXIT 1A ON THE LEFT FOR I-68 W/US-40 W TOWARD CUMBERLAND, CONTINUE ONTO I-68 W/US-40 W
5. TAKE EXIT 42 FOR US-220 S/GREENE STREET TOWARD MC COOLE/KEYSER WV, KEEP LEFT, FOLLOW SIGNS FOR US-220 S
6. TURN LEFT ONTO US-220 S/GREENE ST, KEEP LEFT TO CONTINUE ON HESKIET ST/MEMORIAL ST/N MINERAL ST
7. TURN RIGHT ONTO FORT AVE, TURN LEFT ONTO STATE ST, TURN RIGHT

7CMB072A
KEYSER WATER TANK
A STREET
KEYSER, WV 26726

SEAL:



SUBMITTALS

DATE	DESCRIPTION	REV.
05-31-2022	CONSTRUCTION REVIEW	A
06-10-2022	CONSTRUCTION	0
12-01-2022	REVISE CABLE LENGTH	1

PROJECT TEAM

APPLICANT: T-MOBILE
 12050 BALTIMORE AVE.
 BELTSVILLE, MD 20705
 PHONE: (301) 264-8600

ARCHITECT/ENGINEER: ENTREX COMMUNICATION SERVICES, INC.
 6100 EXECUTIVE BLVD, SUITE 430
 ROCKVILLE, MD 20852
 CAMILLE SHABSHAB (202) 408-0960

PROJECT MANAGEMENT: SMARTLINK LLC
 1362 MELLON RD, SUITE 140
 HANOVER, MD 21076
 PHONE: (410) 582-8043

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.

- 2018 INTERNATIONAL BUILDING CODE
- 2018 INTERNATIONAL EXISTING BUILDING CODE
- 2014 NATIONAL ELECTRICAL CODE
- 2015 NFPA 101, LIFE SAFETY CODE
- 2014 AMERICAN CONCRETE INSTITUTE ACI318
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION AISC360
- MANUAL OF STEEL CONSTRUCTION 13TH EDITION
- ASCE 7
- DESIGN GROUND SNOW LOAD = 30 PSF
- ANSI/TIA-222-H
- PROPOSED CONSTRUCTION TYPE: 2C
- PROPOSED USE GROUP: U



APPROVAL BLOCK

	DATE	APPROVED	APPROVED AS NOTED	REVISE & RESUBMIT
OWNER REPRESENTATIVE	_____	<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"/>

PROJECT NO: 1160.226
 DESIGNER: T.K.
 ENGINEER: C.S.

THESE DRAWINGS ARE FORMATTED TO BE FULL-SIZE AT 22"x34"
 0 1/2 1
 GRAPHIC SCALE IN INCHES

TITLE: **TITLE SHEET**

SHEET NUMBER: **T-1**

STRUCTURAL NOTES

1. THE STRUCTURAL STEEL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ANCHOR BOLT LOCATIONS, ELEVATIONS OF TOP OF CONCRETE AND BEARING PLATES, ALIGNMENT ETC. PRIOR OF STEEL ERECTION.

2. 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".

3. 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, F = 36KSI
STRUCTURAL HSS RECT & SQUARE TUBING	A500, GRADE C, FY = 50 KSI
STRUCTURAL HSS ROUND TUBING	A500, GRADE C, FY = 46 KSI

HIGH STRENGTH BOLTS	A325
THREADED RODS	A354, GRADE BC
ANCHOR BOLTS	A325 OR A354 BC

4. 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.

5. 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.

6. ALL STEEL TO BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123.

7. EPOXY ANCHORS TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

8. ALL BOLTS SHALL BE TIGHTENED USING TURN-OF-THE-NUT METHOD PER AISC SPECIFICATIONS USING STANDARD HOLES.

9. THE INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED BY FIELD MEASUREMENT. THE GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH CONSTRUCTION.

10. THE GENERAL CONTRACTOR AND HIS SUB CONSULTANTS SHALL BE RESPONSIBLE FOR OBTAINING ALL BUILDING AND OR TRADE PERMITS AND INSPECTIONS THAT MAY BE REQUIRED FOR THE WORK.

11. STRUCTURAL THREADED FASTENERS FOR STEEL ANTENNA MOUNTING ASSEMBLIES SHALL CONFORM TO ASTM A307 OR ASTM A36. STRUCTURAL FASTENERS FOR STRUCTURAL STEEL FRAMING SHALL CONFORM TO ASTM A325. STRUCTURAL FASTENERS SHALL BE 5/8" DIAMETER BEARING TYPE CONNECTIONS WITH THE THREADS EXCLUDED FROM THE SHEAR PLANE FOR ANGLES. STRUCTURAL FASTENERS SHALL BE 3/4" DIAMETER BEARING TYPE CONNECTIONS WITH THE THREADS EXCLUDED FROM THE SHEAR PLANE FOR ALL OTHER STRUCTURAL SHAPES. ALL EXPOSED STRUCTURAL FASTENERS, NUTS AND WASHERS SHALL BE HOT DIP GALVANIZED UNLESS OTHERWISE NOTED.

12. EXPANSION ANCHORS INSTALLED IN CONCRETE SHALL BE HILTI STAINLESS STEEL ANCHORS AS SPECIFIED ON THE PLANS. THE EXPANSIONS ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS DIRECTIONS.

13. NORTH ARROW SHOWN ON PLANS REFERS TO TRUE NORTH. CONTRACTOR SHALL SHALL VERIFY NORTH AND INFORM ARCHITECT/ENGINEER OF ANY DISCREPANCY BEFORE STARTING CONSTRUCTION.

14. ROOF PROTECTION PADS UNDER THE CABLE BRIDGE SLEEPERS AND ROOF PAVERS SHALL BE 0.30" THICK RUBBER FIRESTONE PROTECTION PADS. THE ROOF PROTECTION PADS SHALL EXTEND A MINIMUM OF 2" BEYOND THE PERIMETER OF THE OF THE SLEEPERS. PROVIDE A 28 LB FELT SEPARATOR SHEET 2" LARGER THAN THE ROOF PROTECTION PAD DIRECTLY ON THE ROOF. REMOVE ALL LOOSE STONES PRIOR TO PLACING THE SEPARATOR SHEET. ROOF PROTECTION PADS SHALL NOT BE PLACED WITH IN 6" OF AN ADJACENT PAD OR OTHER ROOF OBSTRUCTION TO FACILITATE DRAINAGE.

15. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE BUILDING OWNER'S ROOF CONTRACTOR WHO WILL COMPLETE ALL WORK ASSOCIATED WITH THE ROOF. THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE BUILDING OWNER'S ROOF CONTRACTOR BEFORE INSTALLATION OF ANY ROOF MOUNTED EQUIPMENT.

16. ALL CAST IN PLACE CONCRETE SHALL BE MIXED AND PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318 AND ACI 301, AND SHALL HAVE A 28 DAY MINIMUM COMPRESSIVE STRENGTH OF 4,500 psi (U.O.N). CONCRETE SHALL BE PLACED AGAINST UNDISTURBED SOIL, UNLESS OTHERWISE NOTED. MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE 3 INCHES UNLESS OTHERWISE NOTED.

17. CONCRETE SHALL BE 6% AIR ENTRAINED.

18. ALL REINFORCING STEEL SHALL CONFORM TO ASTM 615 GRADE 60. DEFORMED BILLET STEEL BARS. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.

19. FENCED AREA SHALL BE CLEARED AND GRUBBED. REMOVE UNSUITABLE LOOSE OR SOFT SOIL, ORGANIC MATERIAL OR RUBBLE, TO FIRM SUBGRADE. FILL UNDER CUT AND COMPACT UP TO 6" BELOW FINISH GRADE. PLACE A MIRAFI 500X SOIL STABILIZATION FABRIC ON SUBGRADE. FILL WITH 6" OF AASHTO 57 STONE TO FINISH GRADE.

20. WHERE FILL IS REQUIRED, FILL IN LAYERS WHICH DO NOT EXCEED 8" BEFORE COMPACTION. SPREAD LAYER UNIFORMLY AND EVENLY. BLADE MIX EACH LAYER TO ENSURE MATERIAL UNIFORMITY. FILL MATERIAL SHALL NOT CONTAIN MATERIAL MORE THAN 3" IN DIAMETER. COMPACT EACH LAYER NOT LESS THAN 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557 MODIFIED PROCTOR TEST OR (ASTM D698 STANDARD PROCTOR TEST). USE FILL MATERIAL WITH MOISTURE CONTENT AS REQUIRED TO ATTAIN THE SPECIFIED DEGREE OF COMPACTION. COMPACT USING MULTIPLE WHEEL PNEUMATIC TIRE ROLLED, VIBRATORY ROLLER, OR SHEEPS FOOT ROLLERS.

21. PRESUMPTIVE SOIL BEARING CAPACITY = 1,500 PSF.

GENERAL NOTES

1. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITIES COMPANY OR OTHER PUBLIC AUTHORITIES.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.

3. THE CONTRACTOR SHALL NOTIFY THE 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.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED AS A RESULT OF CONSTRUCTION OF THIS FACILITY.

5. THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

6. THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING A BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

7. CONTRACTOR SHALL VERIFY ANTENNA ELEVATION AND AZIMUTH WITH RF ENGINEERING PRIOR TO INSTALLATION.

8. TRANSMITTER EQUIPMENT AND ANTENNAS ARE DESIGNED TO MEET ANSI/EIA/TIA 222-G REQUIREMENTS.

9. ALL STRUCTURAL ELEMENTS SHALL BE HOT DIPPED GALVANIZED STEEL.

10. CONTRACTOR SHALL MAKE A UTILITY "ONE CALL" TO LOCATE ALL UTILITIES PRIOR TO EXCAVATING.

11. IF ANY UNDERGROUND UTILITIES OR STRUCTURES EXIST BENEATH THE PROJECT AREA, CONTRACTOR MUST LOCATE IT AND CONTACT THE APPLICANT & THE OWNER'S REPRESENTATIVE.

12. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION BY TECHNICIANS APPROXIMATELY 2 TIMES PER MONTH.

13. PROPERTY LINE INFORMATION WAS PREPARED USING DEEDS, TAX MAPS, AND PLANS OF RECORD AND SHOULD NOT BE CONSTRUED AS AN ACCURATE BOUNDARY SURVEY.

14. THIS PLAN IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD.

15. THE PROPOSED FACILITY WILL CAUSE ONLY A "DE MINIMIS" INCREASE IN STORMWATER RUNOFF. THEREFORE, NO DRAINAGE STRUCTURES ARE PROPOSED.

16. NO SIGNIFICANT NOISE, SMOKE, DUST OR ODOR WILL RESULT FROM THIS FACILITY.

17. THE FACILITY IS UNMANNED AND NOT INTENDED FOR HUMAN HABITATION (NO HANDICAP ACCESS REQUIRED).

18. THE FACILITY IS UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SANITARY SERVICE.

19. POWER TO THE FACILITY WILL BE MONITORED BY A SEPARATE METER UNLESS OTHERWISE NOTED IN THIS DRAWING SET.

GROUNDING NOTES

1. GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.

2. ALL GROUNDING DEVICES SHALL BE U.L. APPROVED OR LISTED FOR THEIR INTENDED USE.

3. ALL WIRES SHALL BE AWG THHN/THWN COPPER UNLESS NOTED OTHERWISE.

4. GROUNDING CONNECTIONS TO GROUND RODS, GROUND RING WIRE, TOWER BASE AND FENCE POSTS SHALL BE EXOTHERMIC ("CADWELDS") UNLESS NOTES OTHERWISE. CLEAN SURFACES TO SHINY METAL. WHERE GROUND WIRES ARE CADWELDED TO GALVANIZED SURFACE, SPRAY CADWELD WITH GALVANIZING PAINT.

5. GROUNDING CONNECTIONS TO GROUND BARS ARE TO BE TWO HOLE BRASS MECHANICAL CONNECTORS WITH STAINLESS STEEL HARDWARE (INCLUDING SCREW SET) CLEAN GROUND BAR TO SHINY METAL. AFTER MECHANICAL CONNECTION, TREAT WITH PROTECTIVE ANTIOXIDANT COATING.

6. GROUND COAXIAL CABLE SHIELDS AT BOTH ENDS WITH MANUFACTURER'S GROUNDING KITS.

7. ROUTE GROUNDING CONDUCTORS THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. BEND GROUNDING LEADS WITH A MINIMUM 12" RADIUS.

8. INSTALL 2 AWG GREEN-INSULATED STRANDED WIRE FOR ABOVE GRADE GROUNDING AND 2 BARE TINNED COPPER WIRE FOR BELOW GRADE GROUNDING UNLESS OTHERWISE NOTED.

9. REFER TO GROUNDING PLAN FOR GROUND BAR LOCATIONS. GROUNDING CONNECTIONS SHALL BE EXOTHERMIC TYPE ("CADWELDS") TO ANTENNA MOUNTS AND GROUND RING. REMAINING GROUNDING CONNECTIONS SHALL BE COMPRESSION FITTINGS. CONNECTION TO GROUND BARS SHALL BE MADE WITH TWO-HOLE LUGS.

10. THE GROUND ELECTRODE SYSTEM SHALL CONSIST OF DRIVEN GROUND RODS POSITION ACCRUING TO GROUNDING PLAN. THE GROUND RODS SHALL BE 5/8"x8'-0" COPPER CLAD STEEL INTERCONNECTED WITH 2 BARE TINNED COPPER WIRE BURIED 30" BELOW GRADE. BURY GROUND RODS A MAXIMUM OF 15' APART, AND A MINIMUM OF 8' APART.

11. IF ROCK IS ENCOUNTERED GROUND RODS SHALL BE PLACED AT AN OBLIQUE ANGLE NOT TO EXCEED 45°.

12. EXOTHERMIC WELDS SHALL BE MADE IN ACCORDANCE WITH ERICO PRODUCTS BULLETIN A-AT.

13. CONSTRUCTION OF GROUND RING AND CONNECTIONS TO EXISTING GROUND RING SYSTEM SHALL BE DOCUMENTED WITH PHOTOGRAPHS PRIOR TO BACKFILLING SITE. PROVIDE PHOTOS TO THE T-MOBILE CONSTRUCTION MANAGER.

14. GROUND RING & CONNECTIONS TO IT SHALL BE 2 AWG SOLID BARE TINNED COPPER WIRE. EQUIPMENT GROUND CONNECTIONS TO MGB SHALL BE 2 AWG STRANDED TO WIRE.

15. PRIOR TO INSTALLING LUGS ON GROUND WIRES, APPLY THOMAS & BETTS KOPR-SHIELD (TM OF JET LUBE INC.). PRIOR TO BOLTING GROUND WIRE LUGS TO GROUND BARS, APPLY KOPR-SHIELD OR EQUAL.

16. ENGAGE AN INDEPENDENT ELECTRICAL TESTING FIRM TO TEST AND VERIFY THAT IMPEDANCE DOES NOT EXCEED FIVE OHMS TO GROUND BY MEANS OF "FALL OF POTENTIAL TEST". TEST SHALL BE WITNESSED BY A T-MOBILE REPRESENTATIVE, AND RECORDED ON THE "GROUND RESISTANCE TEST" FORM.

17. WHERE BARE COPPER GROUND WIRES ARE ROUTED FROM ANY CONNECTION ABOVE GRADE TO GROUND RING, INSTALL WIRE IN 3/4" PVC SLEEVE, FROM 1' BELOW GRADE AND SEAL TOP WITH SILICON MATERIAL.

18. PREPARE ALL BONDING SURFACES FOR GROUNDING CONNECTIONS BY REMOVING ALL PAINT AND CORROSION DOWN TO SHINY METAL. FOLLOWING CONNECTIONS, APPLY APPROPRIATE ANTI-OXIDIZATION PAINT.

19. ANY SITE WHERE THE EQUIPMENT (BTS, CABLE BRIDGE, PPC, GENERATOR, ETC.) IS LOCATED WITHIN 6 FEET OF METAL FENCING, THE GROUND RING SHALL BE BONDED TO THE NEAREST FENCE POST USING (3) RUNS OF 2 BARE TINNED COPPER WIRE.

20. TOWER BASE BUSS BAR REQUIRES (2) SOLID LEADS CADWELD TO THE BUSS BAR.

21. MAIN EQUIPMENT BUSS BAR REQUIRES (2) SOLID LEADS CADWELD TO IT AND TO THE GROUND RING.

22. ALL SOLID LEADS TERMINATED TO EITHER A BUSS BAR OR EQUIPMENT SHALL BE PROTECTED WITH CARFLEX.

23. ALL SOLID GROUND LEADS NOT BEING USED SHALL BE COILED UP (PIGTAILS) FOR FUTURE USE AS NEEDED.

ELECTRICAL NOTES

1. SUBMITTAL OF BID INDICATES THAT THE CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.

2. CONTRACTOR SHALL PERFORM ALL VERIFICATIONS, OBSERVATION TESTS, AND EXAMINATION WORK PRIOR TO ORDERING OF ANY EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE PROJECT MANAGER LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.

3. VERIFY HEIGHT WITH PROJECT MANAGER PRIOR TO INSTALLATION.

4. THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE.

5. CONTRACTOR SHALL COORDINATE ALL WORK BETWEEN TRADES AND ALL OTHER SCHEDULING AND PROVISIONALLY CIRCUMSTANCES SURROUNDING THE PROJECT.

6. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT INSTALLATION CONSTRUCTION TOOLS, TRANSPORTATION ETC., FOR COMPLETE AND FUNCTIONALLY OPERATING SYSTEMS ENERGIZED AND READY FOR USE THROUGHOUT AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.

7. ALL MATERIAL AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. ELECTRICAL MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORIES AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF ALL GOVERNING BODIES HAVING JURISDICTION OVER THE CONSTRUCTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH ALL CURRENT APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NBFU. ALL MATERIALS AND EQUIPMENT SHALL BE APPROVED FOR THEIR INTENDED USE AND LOCATION.

8. ALL WORK SHALL COMPLY WITH ALL APPLICABLE GOVERNING STATE, COUNTY AND CITY CODES AND OSHA, NFPA, NEC & ASHRAE REQUIREMENTS.

9. ENTIRE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE. ALL WORK, MATERIAL AND EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.

10. PROPERLY SEAL ALL PENETRATIONS. PROVIDE UL LISTED FIRE-STOPS WHERE PENETRATIONS ARE MADE THROUGH FIRE-RATED ASSEMBLIES. WATER-TIGHT USING SILICONE SEALANT.

11. LOCATE ALL PENETRATIONS SUCH THAT ALL REINFORCEMENT CONTAINED WITHIN THE EXISTING BUILDING CONSTRUCTION REMAINS INTACT AND UNDISTURBED. SUBMIT LOCATING METHOD TO PROJECT MANAGER FOR APPROVAL PRIOR TO EXECUTION.

12. DELIVER ALL BROCHURES, OPERATING MANUALS, CATALOGS AND SHOP DRAWINGS TO THE PROJECT MANAGER AT JOB COMPLETION. PROVIDE MAINTENANCE MANUALS FOR MECHANICAL EQUIPMENT. AFFIX MAINTENANCE LABELS TO MECHANICAL EQUIPMENT.

13. ALL CONDUCTORS SHALL BE COPPER. MINIMUM CONDUCTOR SIZE SHALL BE 12 AWG., UNLESS OTHERWISE NOTED. CONDUCTORS SHALL BE TYPE THHW, RATED IN ACCORDANCE WITH NEC 110-14(C).

14. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THE MAXIMUM INTERRUPTING CURRENT TO WHICH THEY MAY BE SUBJECTED.

15. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDING IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE; ARTICLES 250 & 810 AND THE UTILITY COMPANY STANDARDS.

16. CONDUIT: ALL ABOVE GRADE CONDUITS SHALL BE RIGID & LFMC TO 6' AS STATED BELOW

A. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.

B. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.

C. LIQUID-TIGHT FLEXIBLE METAL CONDUIT SHALL BE U.L. LISTED AND SHALL BE USED AT FINAL CONNECTIONS TO MECHANICAL EQUIPMENT & RECTIFIERS AND WHERE PERMITTED BY CODE. ALL CONDUIT IN EXCESS OF SIX FEET IN LENGTH SHALL CONTAIN A FULL-SIZE GROUND CONDUCTOR.

D. CONDUIT RUNS SHALL BE SURFACE MOUNTED ON CEILINGS OR WALLS UNLESS NOTED OTHERWISE. ALL CONDUIT SHALL RUN PARALLEL OR PERPENDICULAR TO WALLS, FLOOR, CEILING, OR BEAMS. VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH THE PROJECT MANAGER PRIOR TO INSTALLING.

E. PVC CONDUIT MAY BE PROVIDED ONLY WHERE SHOWN, OR IN UNDERGROUND INSTALLATIONS. PROVIDE UV-RESISTANT CONDUIT WHERE EXPOSED TO THE ATMOSPHERE. PROVIDE GROUND CONDUCTOR IN ALL PVC RUNS; EXCEPT WHERE PERMITTED BY CODE TO OMIT.

17. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PHENOLIC PLASTIC NAMEPLATES. PPC, METER, DISCONNECT, RAC353, PBC05, AND HF JUNCTION BOX. BACKGROUND SHALL BE BLACK WITH WHITE LETTERS; EXCEPT AS REQUIRED BY CODE TO FOLLOW A DIFFERENT SCHEME.

18. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL OF POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO T-MOBILE PROJECT MANAGER. GROUNDING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE T-MOBILE PROJECT MANAGER FOR FURTHER INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE.

19. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION. LEGALLY DISPOSE OF ALL REMOVED, UNUSED AND EXCESS MATERIAL GENERATED BY THE WORK OF THIS CONTRACT. DELIVER ITEMS INDICATED ON THE DRAWINGS TO THE OWNER IN GOOD CONDITION. OBTAIN SIGNED RECEIPT UPON DELIVERY.

20. COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS SHALL BE PAID BY THE CONTRACTOR.

21. VERIFY ALL EXISTING CIRCUITRY PRIOR TO REMOVAL AND NEW WORK. MAINTAIN POWER TO ALL OTHER AREAS & CIRCUITS NOT SCHEDULED FOR REMOVAL.

22. RED LINED AS-BUILT PLANS SHALL BE PROVIDED TO THE T-MOBILE CONSTRUCTION MANAGER.

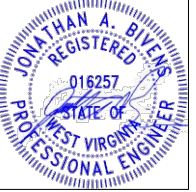

T-MOBILE NORTHEAST LLC
12050 BALTIMORE AVENUE
BELTSVILLE, MD 20705
PHONE: (240) 264-8600


6100 EXECUTIVE BLVD, SUITE 430
ROCKVILLE, MD 20852
PHONE: (202) 408-0960



1362 MELLON RD, STE 140
HANOVER, MD 21076
PHONE: (410) 582-8043
FAX: (410) 221-2962

7CMB072A
KEYSER WATER TANK

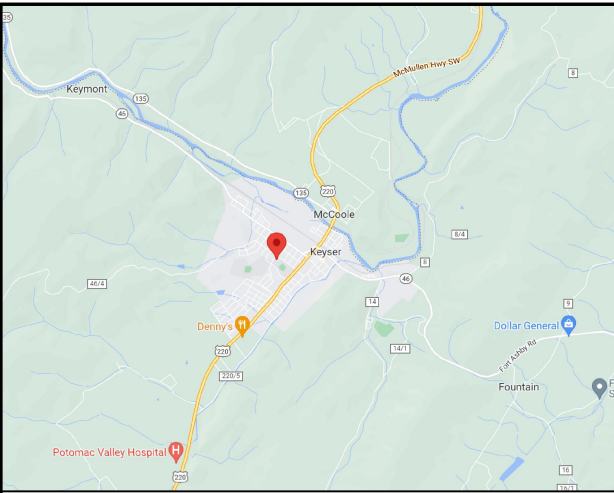
A STREET
KEYSER, WV 26726

SEAL:


SUBMITTALS		
DATE	DESCRIPTION	REV.
05-31-2022	CONSTRUCTION REVIEW	A
06-10-2022	CONSTRUCTION	0
12-01-2022	REVISE CABLE LENGTH	1

PROJECT NO: 1160.226
DESIGNER: T.K.
ENGINEER: C.S.
THESE DRAWINGS ARE FORMATTED TO BE FULL-SIZE AT 22"x34"
0 1/2 1

GRAPHIC SCALE IN INCHES
TITLE:

GENERAL NOTES
SHEET NUMBER:
N-1



VICINITY MAP
SCALE: 1" = 1 MILE

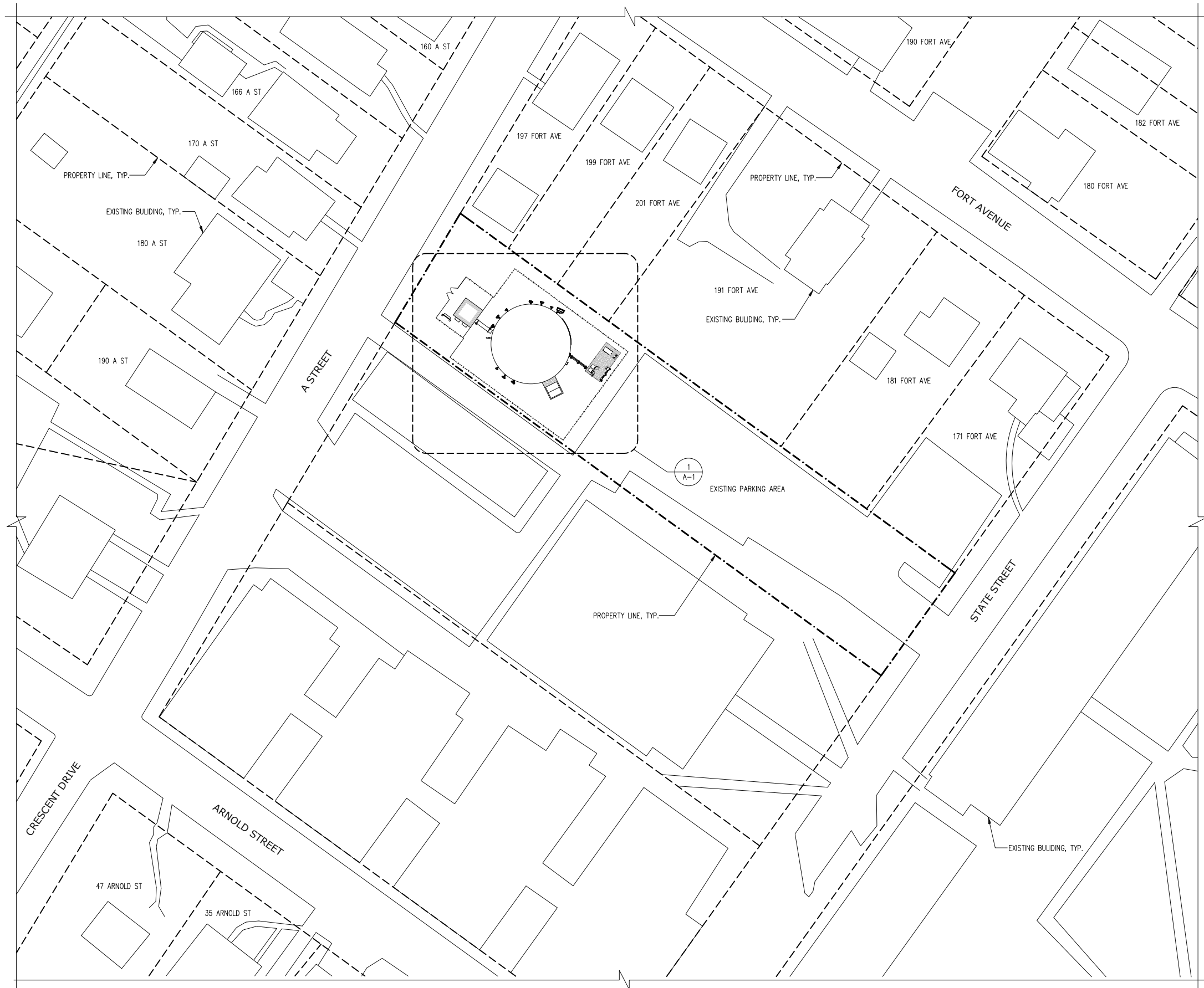


SITE INFORMATION

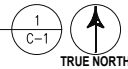
JURISDICTION: CITY OF KEYSER, MINERAL COUNTY, WV
 PARCEL ID: 29-07-0006-0196-0000
 PARCEL AREA: 0.56544 ACRES
 PARCEL OWNER: CITY OF KEYSER
 OWNER ADDRESS: 111 N DAVIS ST, KEYSER, WV 26726
 GROUND ELEVATION: 944.2 FT (A.M.S.L.)
 LATITUDE: N 39° 26' 23.575"
 LONGITUDE: W 78° 59' 01.107"

LINE TYPES

- BOUNDARY LINE - PARENT PARCEL
- UNSURVEYED LINE - BOUNDARY OF ADJOINERS
- CENTER LINE
- CONSERVATION EASEMENT
- BUILDING SET BACK
- EDGE OF ASPHALT
- OVERHEAD UTILITY LINE
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- TREE OR VEGETATION LINE
- FENCE LINE-CHAIN



SITE PLAN
SCALE: 1" = 30'



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smartlink
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 HANOVER, MD 21076
 PHONE: (410) 582-8043
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KEYSER WATER TANK
A STREET
KEYSER, WV 26726

SEAL:

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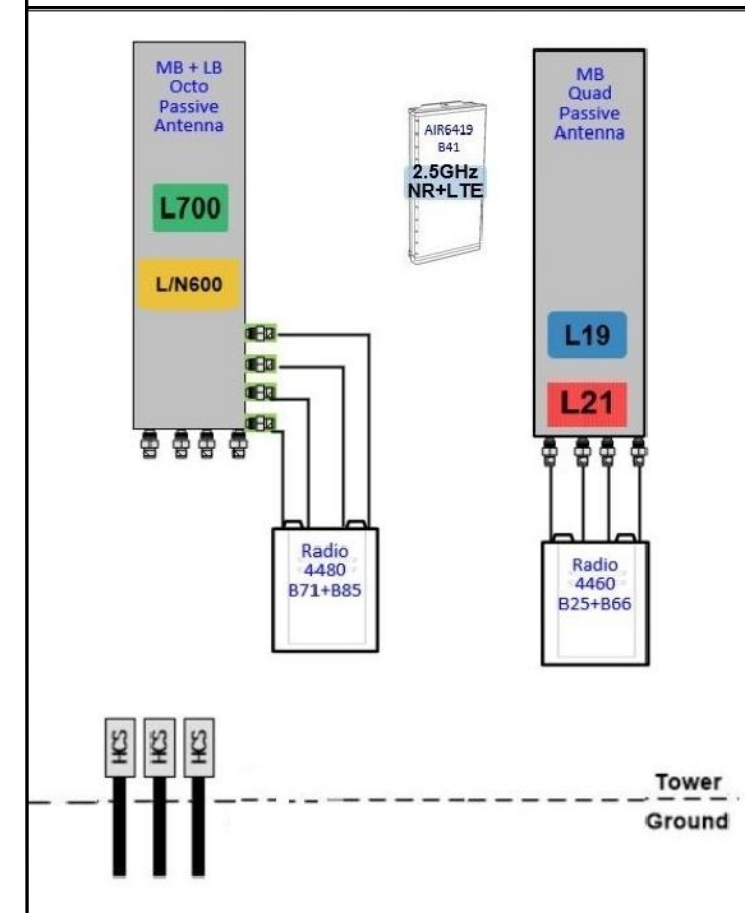
TITLE:
SITE PLAN

SHEET NUMBER:
C-1

RF SYSTEM SCHEDULE

SECTOR	ANTENNA	TECHNOLOGY	ANTENNA MODEL	VENDOR	AZIMUTH	E-TILT	ANTENNA CENTERLINE	TMA/RRU MODEL	CABLE TYPE & LENGTH
1	A-1	L700/L600/N600	APXVAALL24_43-U-NA20 (OCTO)	RFS	20°	-	84'-0"	RADIO 4480 B71+B85	(1) ±140' ERICSSON 6X24 HYBRID TRUNK 4AWG CABLE SHARED FOR ENTIRE SITE
		L700/L600/N600				-		-	
		-				-		-	
	A-2	L2500/N2500	AIR6419 B41	ERICSSON	20°	-	86'-6"	-	
		L2500/N2500				-			
	A-3	L2100/L1900	VV-65A-R1 (QUAD)	COMMSCOPE	20°	-	85'-9"	RADIO 4460 B25+B66	
		L2100/L1900				-			
	A-4	-	VHLP4-11W-3WH/A	COMMSCOPE	24.5°	-	85'-9"	ODU	
2	B-1	L700/L600/N600	APXVAALL24_43-U-NA20 (OCTO)	RFS	220°	-	84'-0"	RADIO 4480 B71+B85	(1) ±150' ERICSSON 6X24 HYBRID TRUNK 4AWG CABLE SHARED FOR ENTIRE SITE
		L700/L600/N600				-		-	
		-				-		-	
	B-2	L2500/N2500	AIR6419 B41	ERICSSON	220°	-	86'-6"	-	
		L2500/N2500				-			
	B-3	L2100/L1900	VV-65A-R1 (QUAD)	COMMSCOPE	220°	-	85'-9"	RADIO 4460 B25+B66	
L2100/L1900		-							
3	C-1	L700/L600/N600	APXVAALL24_43-U-NA20 (OCTO)	RFS	310°	-	84'-0"	RADIO 4480 B71+B85	(1) ±165' ERICSSON 6X24 HYBRID TRUNK 4AWG CABLE SHARED FOR ENTIRE SITE
		L700/L600/N600				-		-	
		-				-		-	
	C-2	L2500/N2500	AIR6419 B41	ERICSSON	310°	-	86'-6"	-	
		L2500/N2500				-			
	C-3	L2100/L1900	VV-65A-R1 (QUAD)	COMMSCOPE	310°	-	85'-9"	RADIO 4460 B25+B66	
L2100/L1900		-							

CONFIGURATION: 67D5A998E 6160

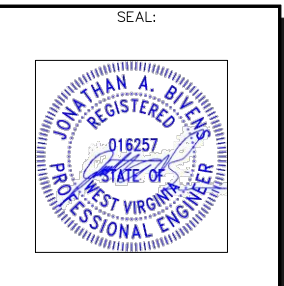


T-Mobile
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communication services, inc.
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smartlink
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HANOVER, MD 21076
PHONE: (410) 582-8043
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KEYSER WATER TANK
A STREET
KEYSER, WV 26726

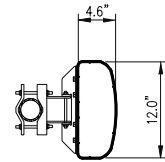


SUBMITTALS		
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12-01-2022	REVISE CABLE LENGTH	1

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0 1/2 1
GRAPHIC SCALE IN INCHES

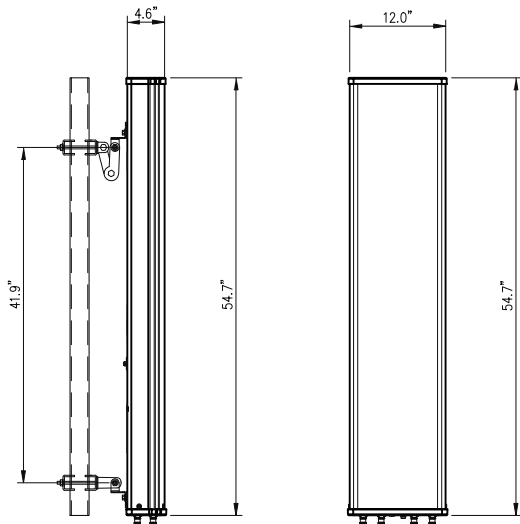
TITLE:
RF SYSTEM SCHEDULE AND CABLING DIAGRAM

SHEET NUMBER:
S-1



TOP VIEW

ANTENNA MODEL:
COMMSCOPE VV-65A-R1
SIZE: (54.7" H x 12" W x 4.6" D)
WEIGHT: 24.7 LBS.
MOUNTING BRACKET WEIGHT: 8.6 LBS.



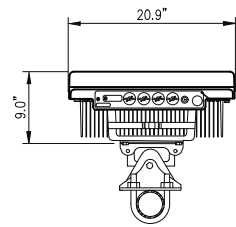
SIDE VIEW

FRONT VIEW

COMMSCOPE VV-65A-R1 ANTENNA DETAIL

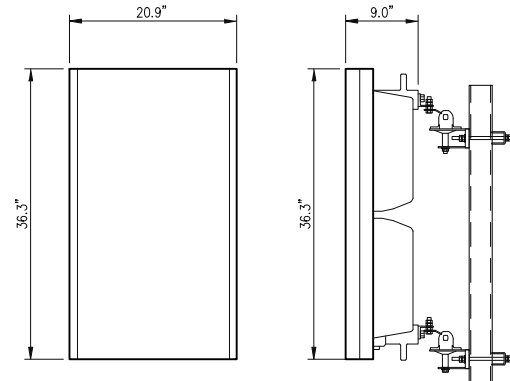
SCALE: 1"=1'-0"

1
S-2



TOP VIEW

ANTENNA MODEL:
ERICSSON AIR6419 B41
SIZE: 36.3" H x 20.9" W x 9.0" D
WEIGHT: 83.0 LBS
(W/O MOUNTING HARDWARE)



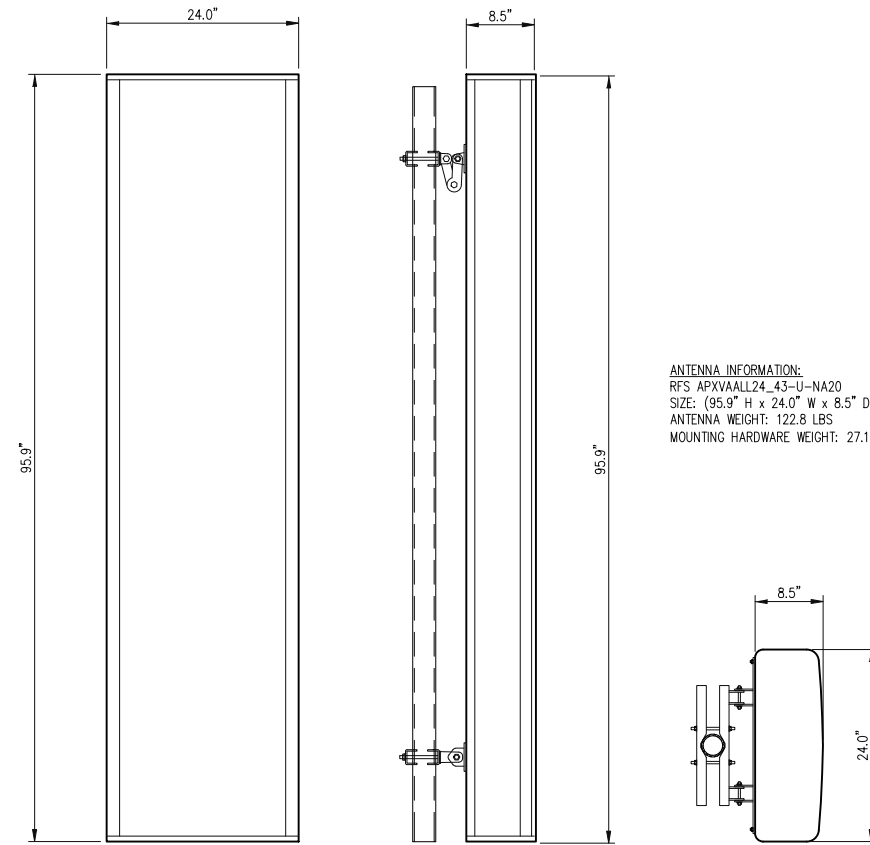
FRONT VIEW

SIDE VIEW

ERICSSON AIR6419 B41 ANTENNA

SCALE: 1"=1'-0"

2
S-2



FRONT VIEW

SIDE VIEW

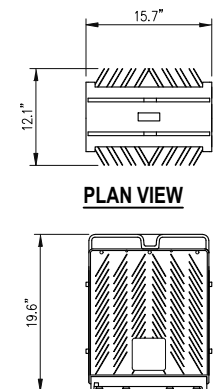
TOP VIEW

RFS APXVAALL24_43-U-NA20 ANTENNA DETAIL

SCALE: 1"=1'-0"

3
S-2

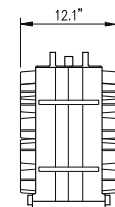
ANTENNA INFORMATION:
RFS APXVAALL24_43-U-NA20
SIZE: (95.9" H x 24.0" W x 8.5" D)
ANTENNA WEIGHT: 122.8 LBS
MOUNTING HARDWARE WEIGHT: 27.1 LBS



PLAN VIEW

FRONT VIEW

RADIO INFORMATION:
WEIGHT: 109.0 LBS
(W/O MOUNTING HARDWARE)

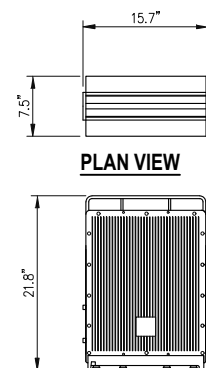


SIDE VIEW

ERICSSON 4460 B25 B66 RRU DETAIL

SCALE: 1"=1'-0"

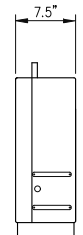
4
S-2



PLAN VIEW

FRONT VIEW

RADIO INFORMATION:
WEIGHT: 84.0 LBS
(W/O MOUNTING HARDWARE)

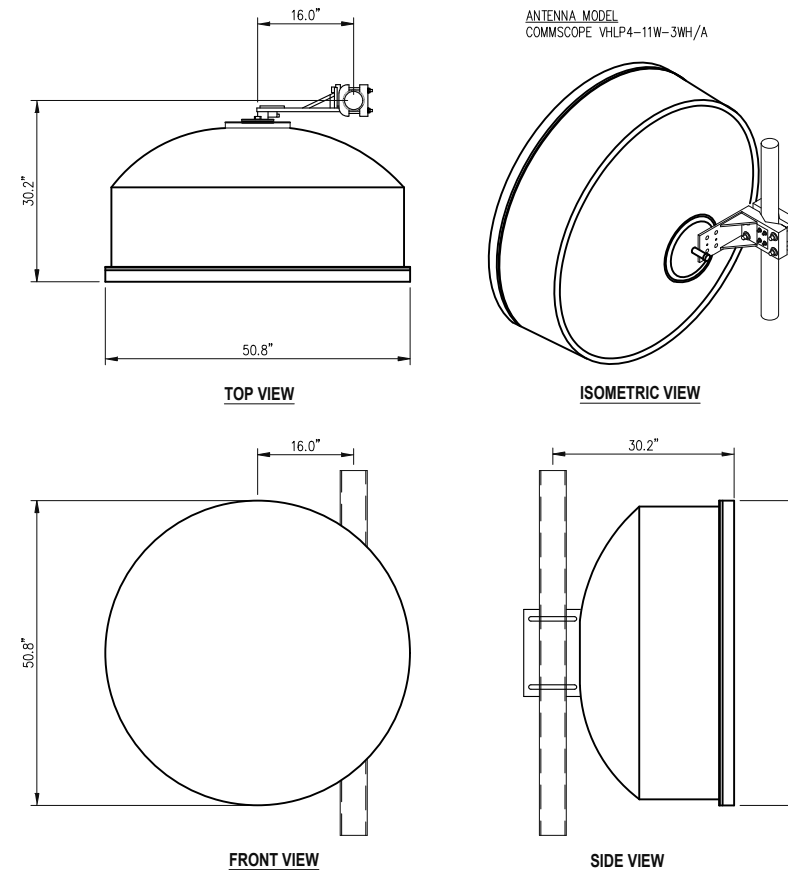


SIDE VIEW

ERICSSON 4480 B71 B85A RRU DETAIL

SCALE: 1"=1'-0"

5
S-2



TOP VIEW

ISOMETRIC VIEW

FRONT VIEW

SIDE VIEW

ANTENNA DETAIL

SCALE: 3/4"=1'-0"

6
S-2

ANTENNA MODEL:
COMMSCOPE VHLP4-11W-3WH/A

T-Mobile
T-MOBILE NORTHEAST LLC
12050 BALTIMORE AVENUE
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smartlink
1362 MELLON RD, STE 140
HANOVER, MD 21076
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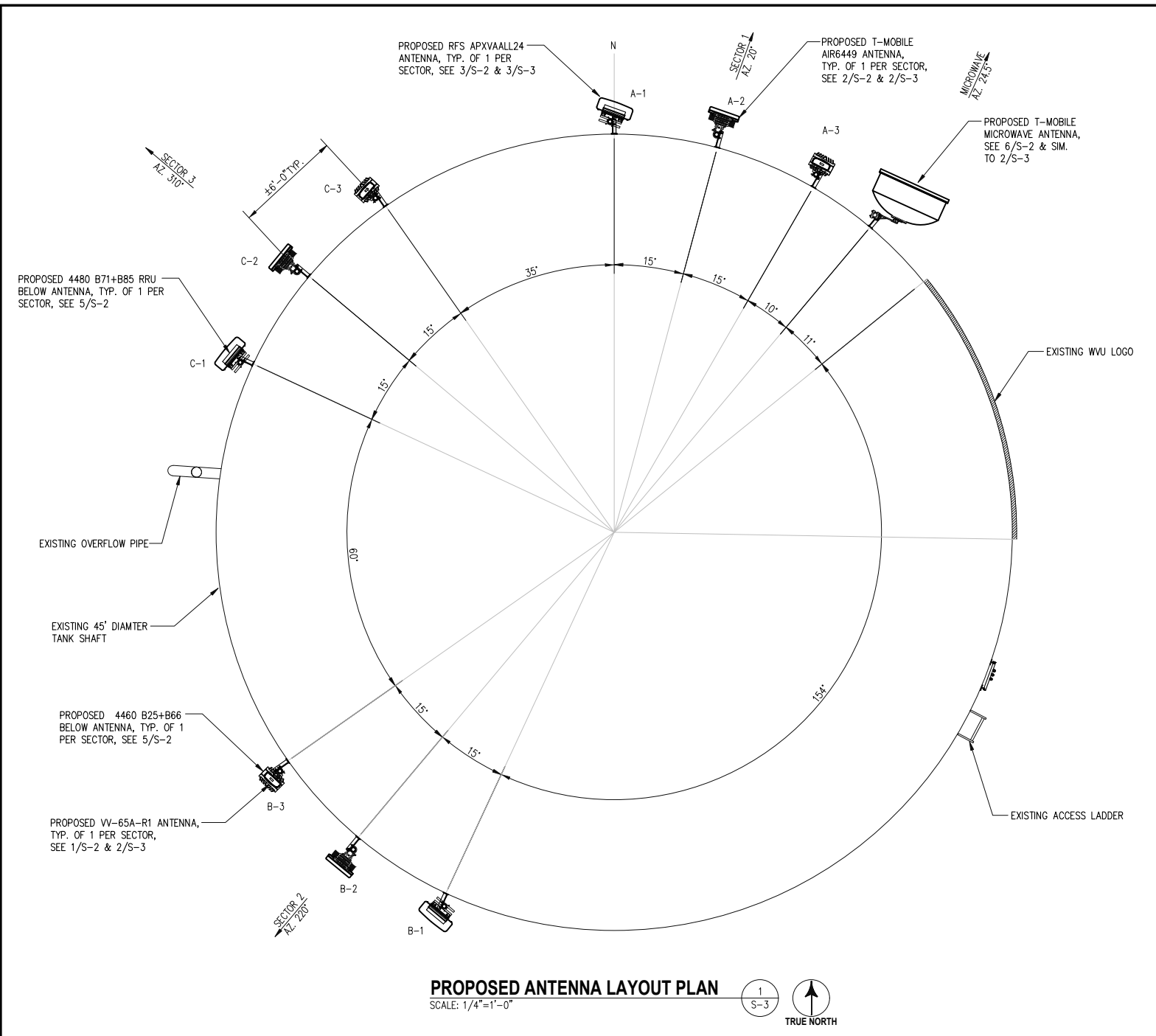
7CMB072A
KEYSER WATER TANK
A STREET
KEYSER, WV 26726

SEAL:
NATHAN A. BIVENS
REGISTERED
PROFESSIONAL ENGINEER
STATE OF VIRGINIA
016257

SUBMITTALS

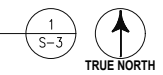
DATE	DESCRIPTION	REV.
05-31-2022	CONSTRUCTION REVIEW	A
06-10-2022	CONSTRUCTION	0
12-01-2022	REVISE CABLE LENGTH	1

PROJECT NO: 1160.226
DESIGNER: T.K
ENGINEER: C.S.
THESE DRAWINGS ARE FORMATTED
TO BE FULL-SIZE AT 22"x34"
0 1/2 1
GRAPHIC SCALE IN INCHES
TITLE:
**ANTENNA AND
RRU DETAILS**
SHEET NUMBER:
S-2

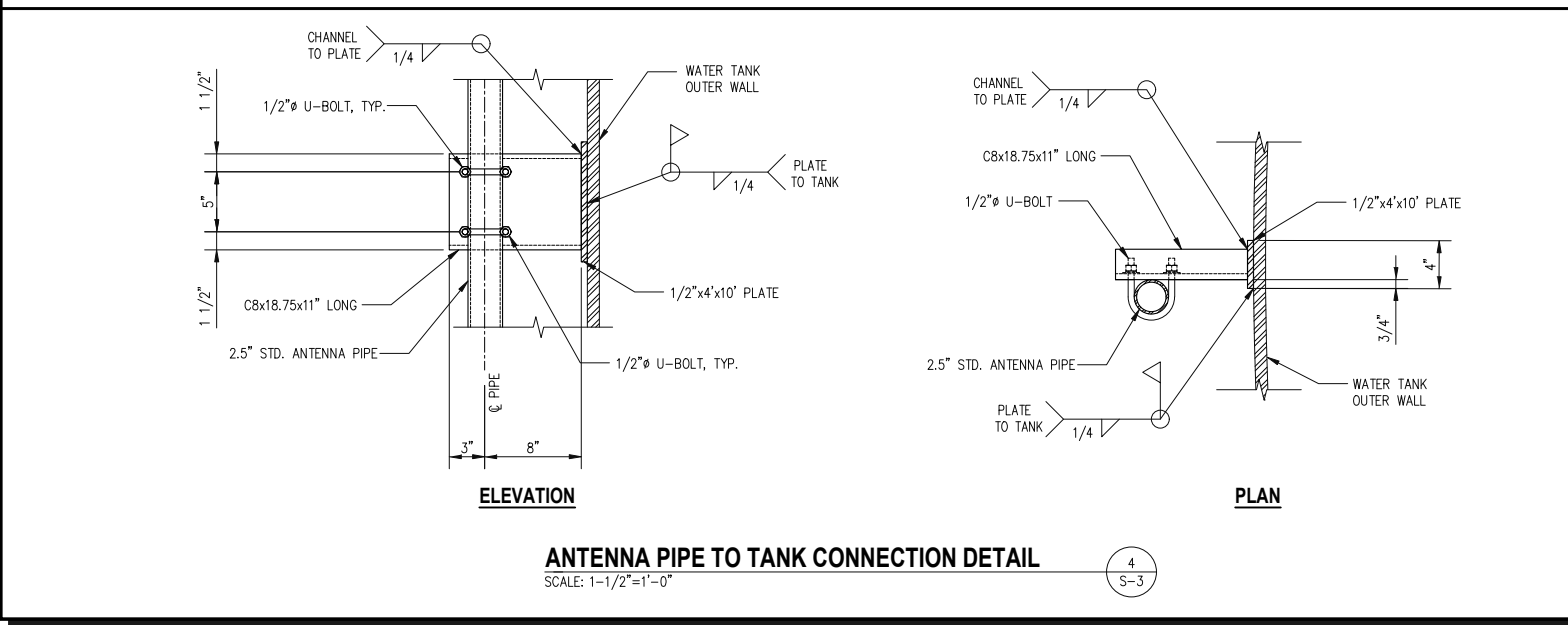


PROPOSED ANTENNA LAYOUT PLAN

SCALE: 1/4"=1'-0"



TRUE NORTH

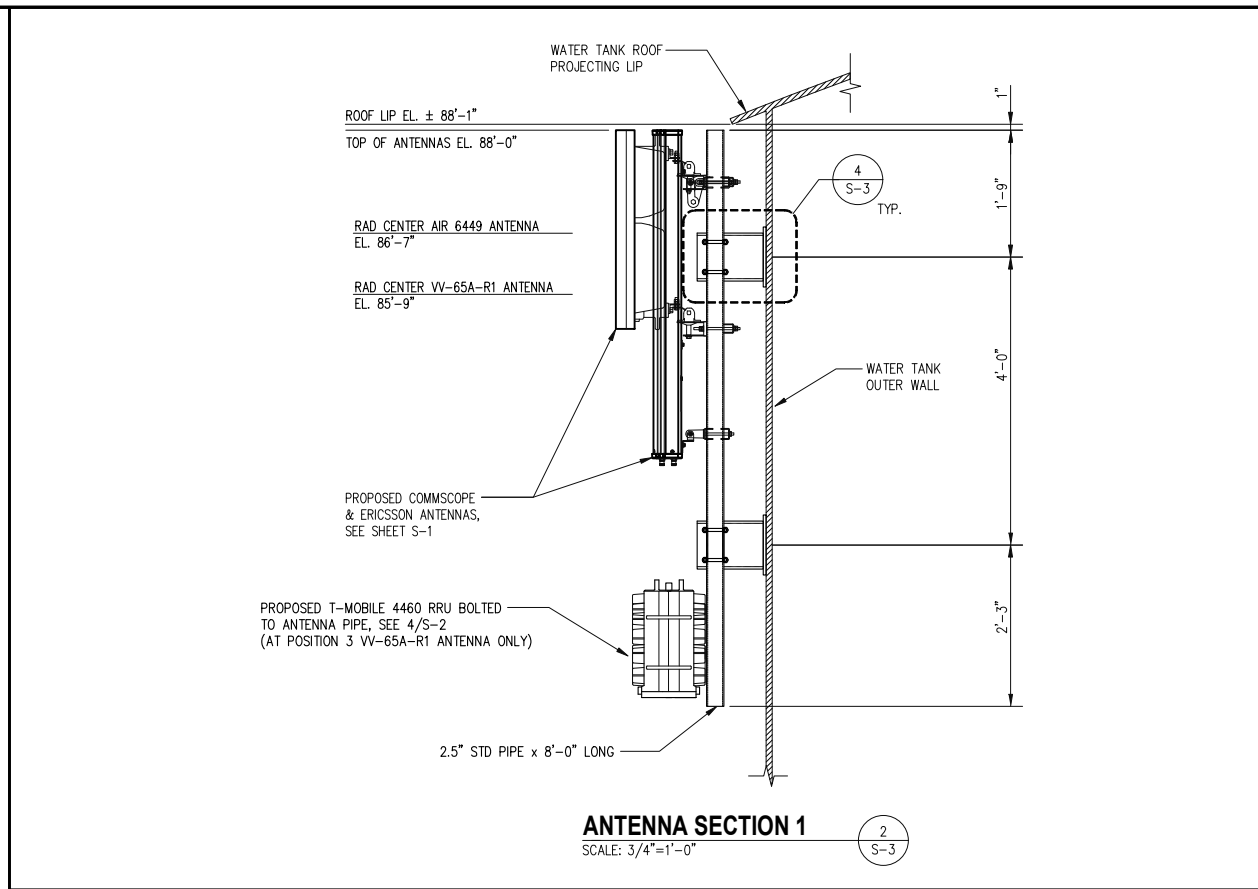


ELEVATION

PLAN

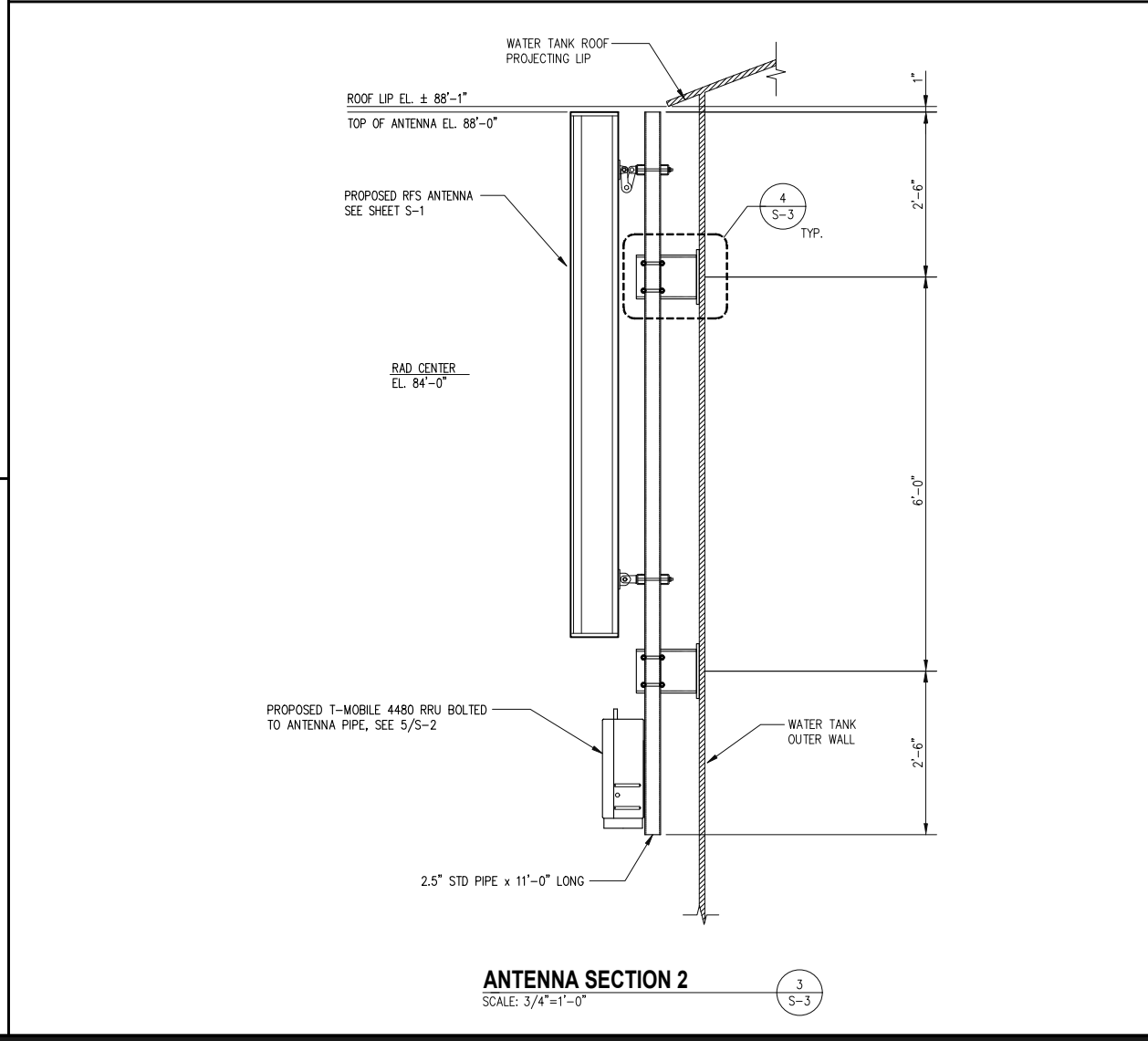
ANTENNA PIPE TO TANK CONNECTION DETAIL

SCALE: 1-1/2"=1'-0"



ANTENNA SECTION 1

SCALE: 3/4"=1'-0"



ANTENNA SECTION 2

SCALE: 3/4"=1'-0"



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KEYSER WATER TANK
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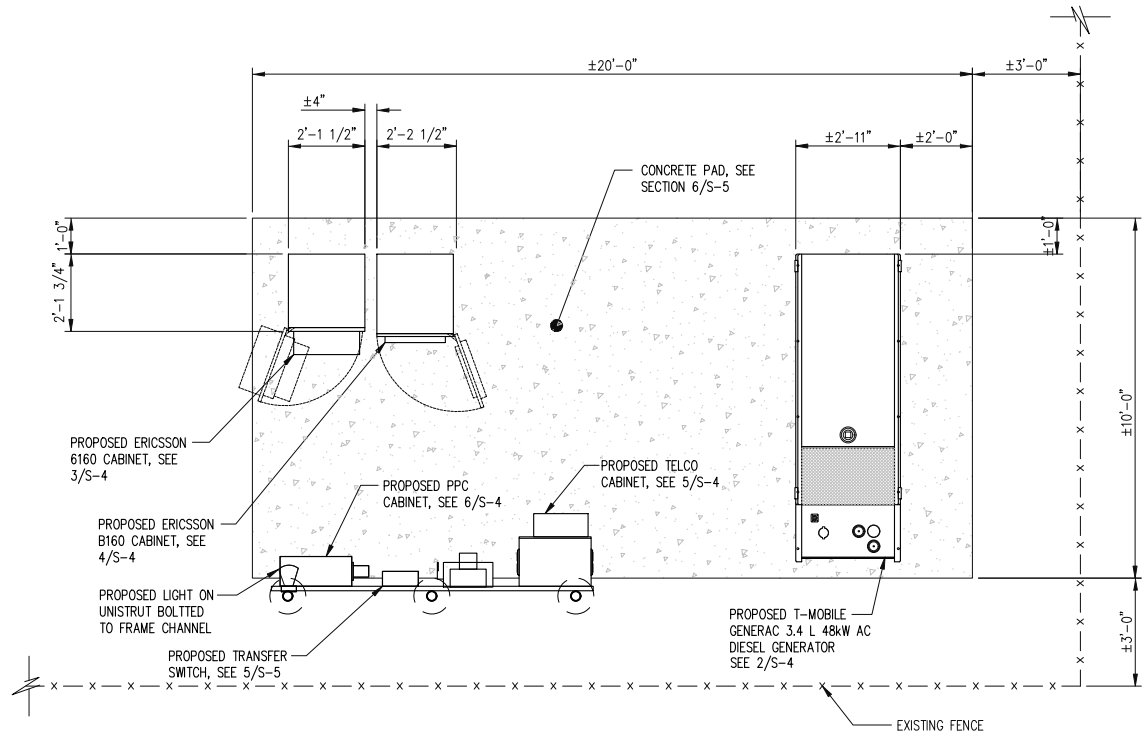
SEAL:

 JONATHAN A. BIENS
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF WEST VIRGINIA
 016257

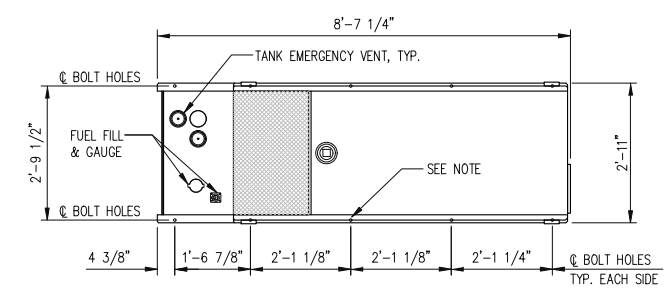
SUBMITTALS

DATE	DESCRIPTION	REV.
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12-01-2022	REVISE CABLE LENGTH	1

PROJECT NO: 1160.226
 DESIGNER: T.K.
 ENGINEER: C.S.
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 0 1/2 1
 GRAPHIC SCALE IN INCHES
 TITLE:
ANTENNA LAYOUT PLAN AND SECTIONS
 SHEET NUMBER:
S-3

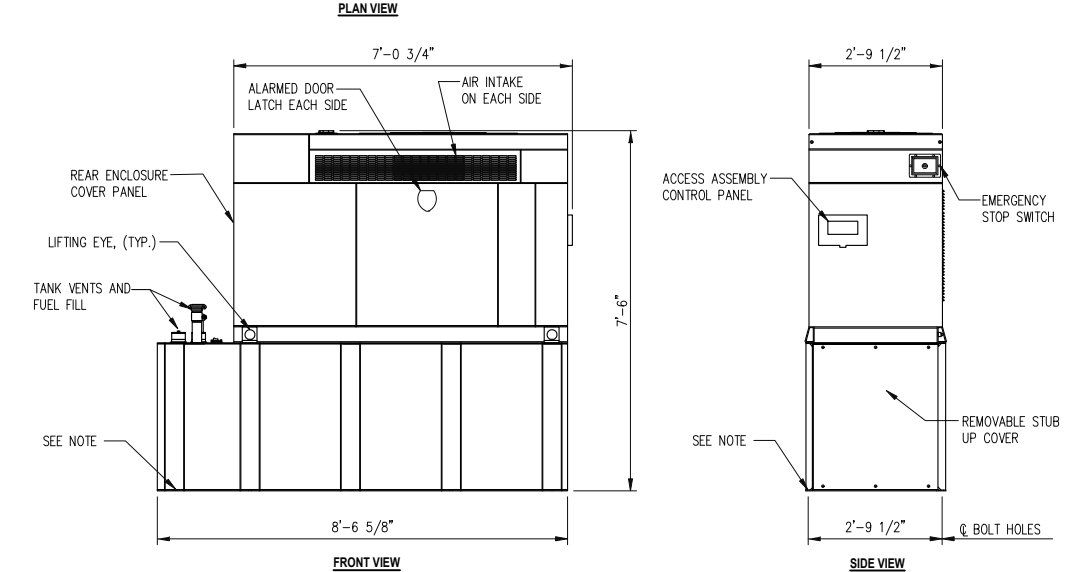


PROPOSED EQUIPMENT LAYOUT PLAN
SCALE: 3/8" = 1'-0"
1 S-4
TRUE NORTH

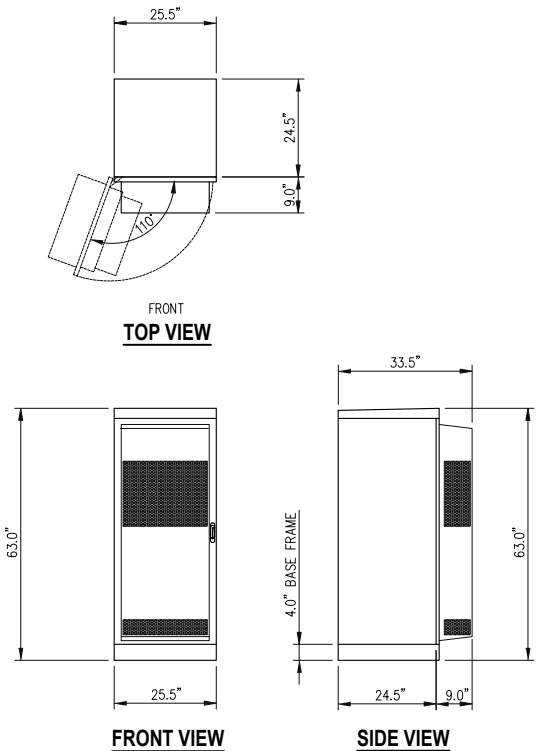


SPECIFICATIONS:
MODEL #: RD048
DIMENSIONS: 35.0"Wx90.0"Hx103.4"D
TANK CAPACITY: 240 GALONS
DRY WEIGHT: 2,915 LBS.
TOTAL WEIGHT: 4,670 LBS.

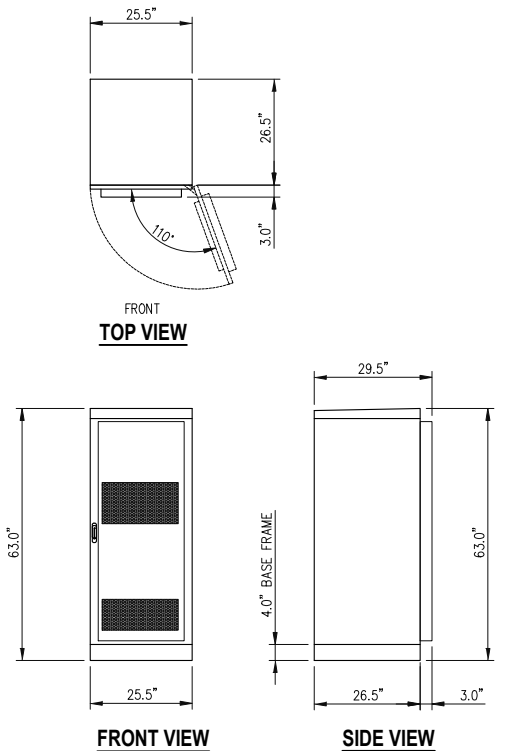
NOTE:
BOLT GENERATOR TO CONCRETE PAD WITH (10) 5/8" x 4-1/2" LONG HILTI KWIK BOLT 3 STAINLESS STEEL 316 WEDGE ANCHORS. PROVIDE 3.5" MIN. TO 4" MAX. EMBEDMENT



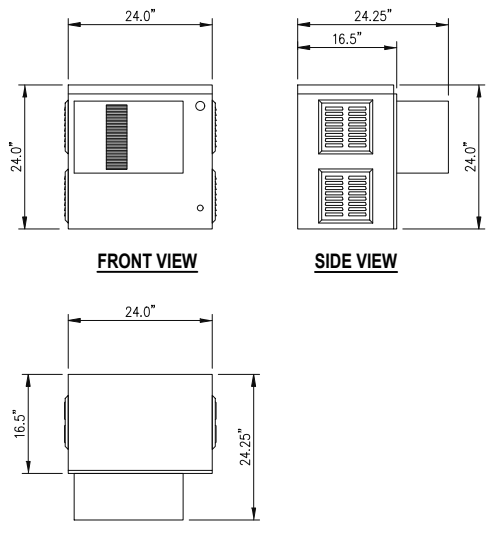
GENERAC 3.4L 48KW AC DIESEL GENERATOR DETAIL
SCALE: 1/2" = 1'-0"
2 S-4



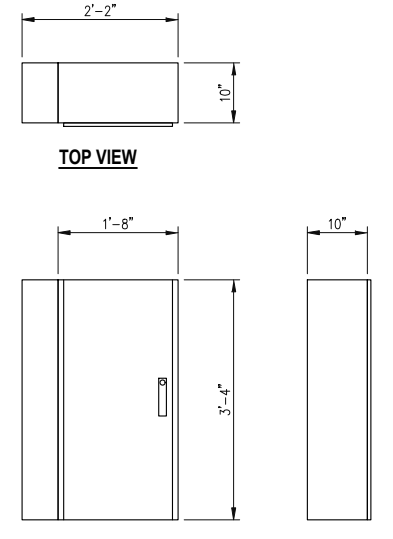
ERICSSON 6160 CABINET DETAIL
SCALE: 1/2" = 1'-0"
3 S-4
NOTE: CABINET WEIGHT: 320 LBS (EMPTY)
CABINET WEIGHT: 1,500 LBS (FULLY LOADED)



ERICSSON B160 CABINET DETAIL
SCALE: 1/2" = 1'-0"
4 S-4
NOTE: CABINET WEIGHT: 295 LBS (EMPTY)
CABINET WEIGHT: 2,000 LBS (FULLY LOADED)



VERTIV XTE 401 NXC2416AAV1H05883 ENCLOSURE DETAIL
SCALE: 3/4" = 1'-0"
5 S-4



PPC DETAIL
SCALE: 3/4" = 1'-0"
6 S-4

Mobile
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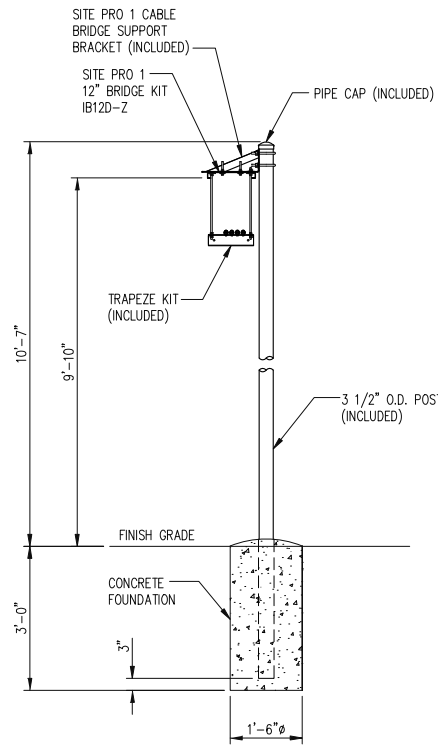
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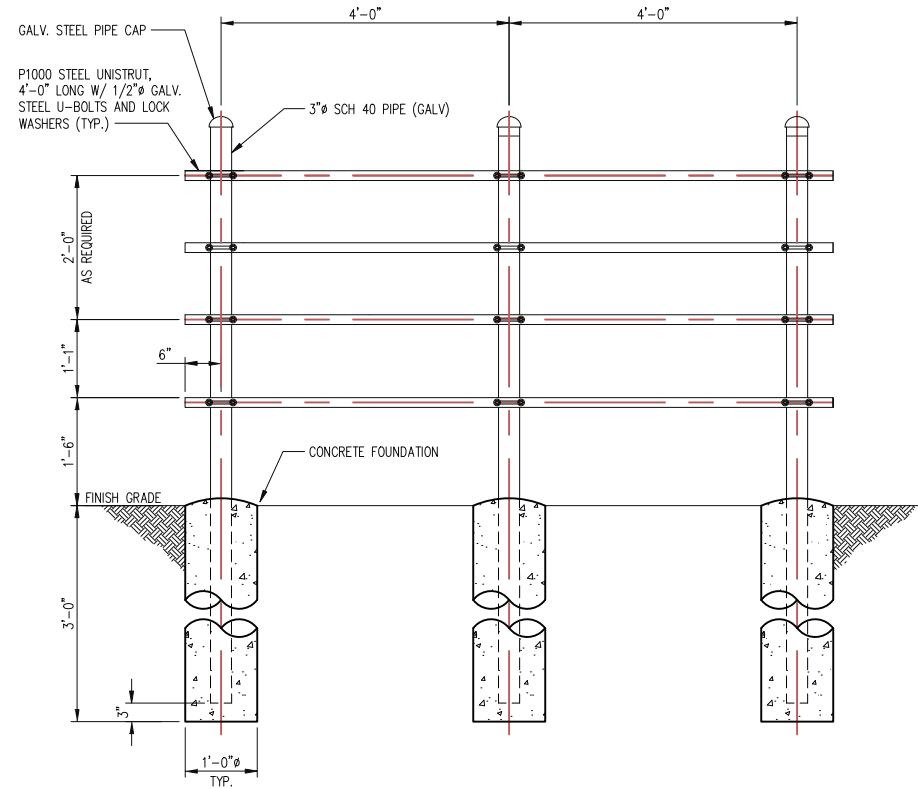
SUBMITTALS

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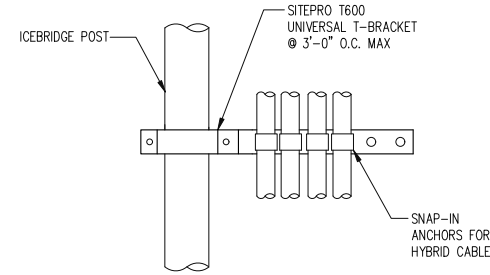
PROJECT NO: 1160.226
DESIGNER: T.K.
ENGINEER: C.S.
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0 1/2 1
GRAPHIC SCALE IN INCHES
TITLE:
EQUIPMENT LAYOUT PLAN & DETAILS
SHEET NUMBER:
S-4



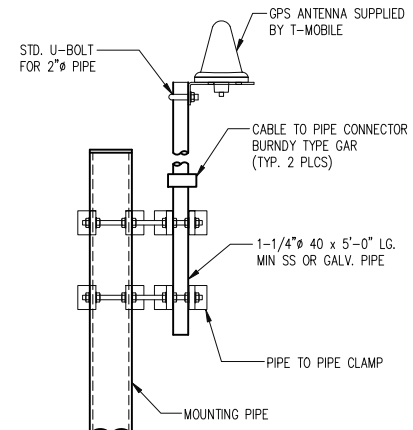
SECTION 1
SCALE: 1/2"=1'-0" S-5



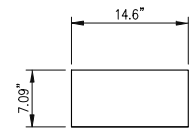
UTILITY FRAME DETAIL 2
SCALE: 3/4"=1'-0" S-5



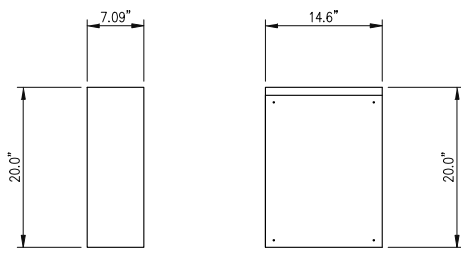
CABLE DETAIL 3
SCALE: 1 1/2"=1'-0" S-5



GPS MOUNTING DETAIL 4
SCALE: 1-1/2"=1'-0" S-5



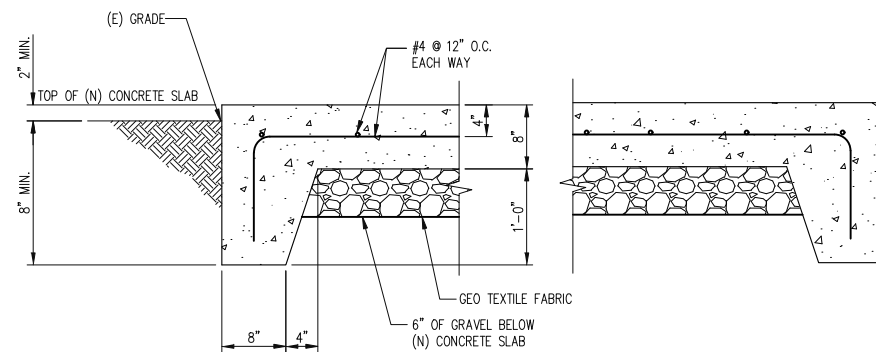
TOP VIEW



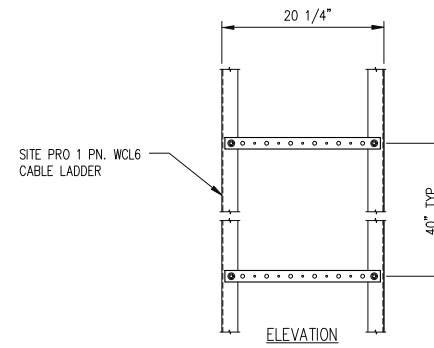
SIDE VIEW

FRONT VIEW

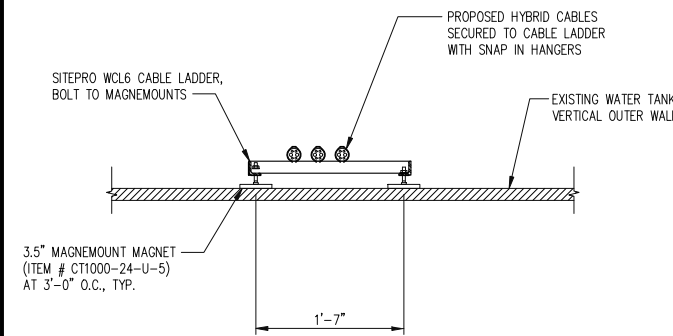
GENERAC RXSC200A3 200 AMP ATS
SCALE: 1"=1'-0" S-5



CONCRETE PAD SECTION 6
SCALE: 1"=1'-0" S-5

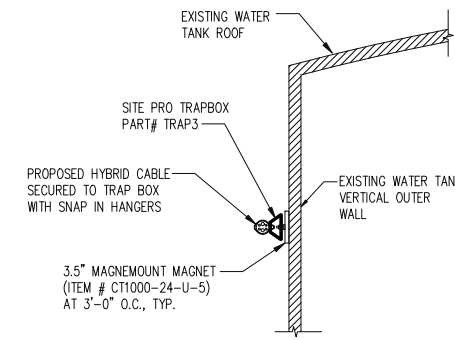


ELEVATION



PLAN VIEW

MAGNE-MOUNT CABLE SUPPORT FOR VERTICAL CABLE RUN
SCALE: 1"=1'-0" S-5



SIDE VIEW

MAGNE-MOUNT CABLE SUPPORT FOR HORIZONTAL CABLE RUN
SCALE: 1"=1'-0" S-5

Mobile
T-MOBILE NORTHEAST LLC
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communication services, inc.
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smartlink
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KEYSER WATER TANK
A STREET
KEYSER, WV 26726

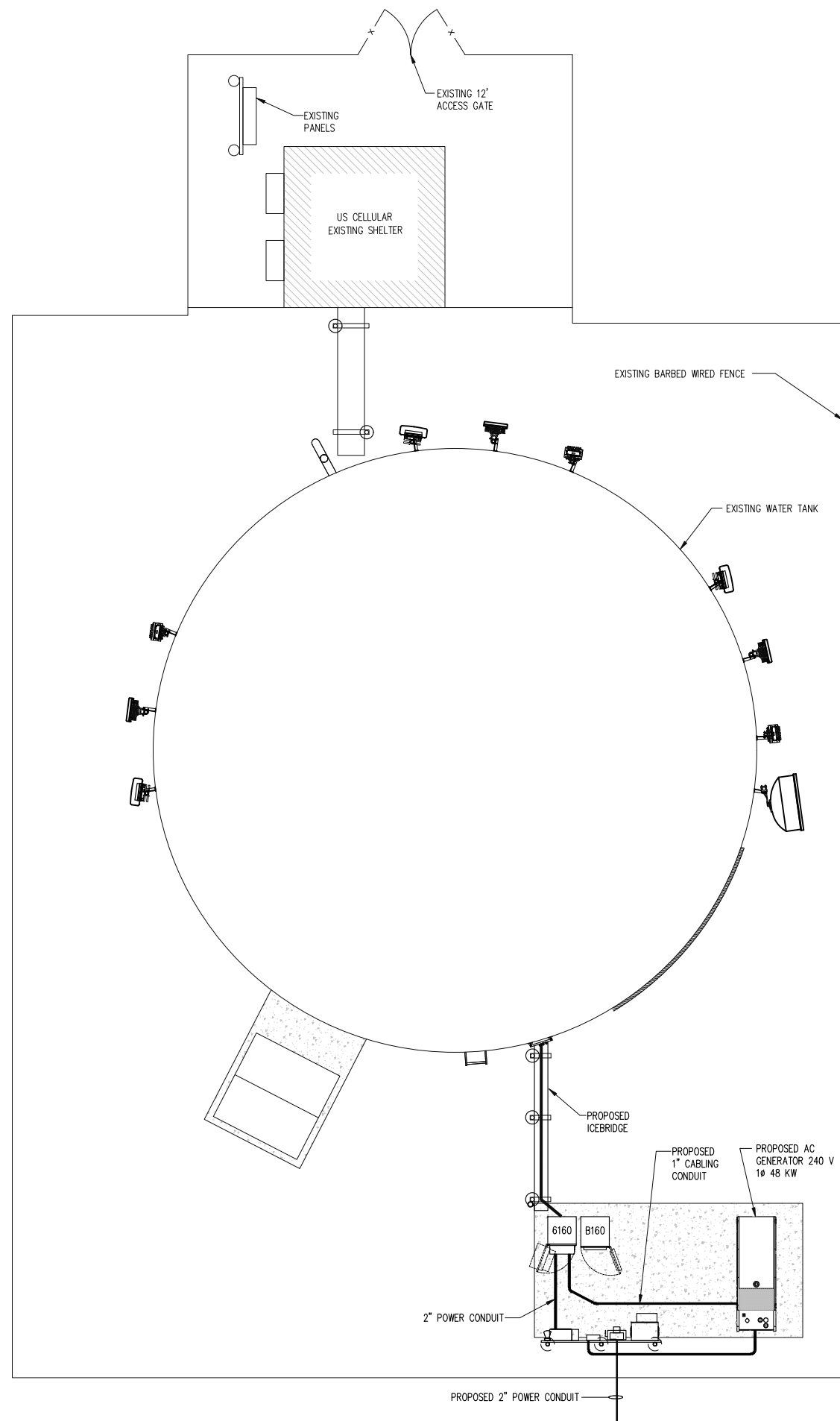
SEAL:
WONATHAN A. BIVENS
REGISTERED
016257
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

SUBMITTALS

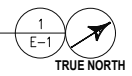
DATE	DESCRIPTION	REV.
05-31-2022	CONSTRUCTION REVIEW	A
06-10-2022	CONSTRUCTION	0
12-01-2022	REVISE CABLE LENGTH	1

PROJECT NO: 1160.226
DESIGNER: T.K.
ENGINEER: C.S.
THESE DRAWINGS ARE FORMATTED TO BE FULL-SIZE AT 22"x34"
0 1/2 1
GRAPHIC SCALE IN INCHES

TITLE:
SITE DETAILS
SHEET NUMBER:
S-5



ELECTRICAL PLAN
SCALE: 3/16"=1'-0"



T-MOBILE PANEL PPC										
VOLTAGE: 120/240 1 PHASE 3 WIRE 200 AMP M.C.B. A.I.C. RATING: 65 kA										
LOAD DESCRIPTION	VA	B K R	C K T	L1	L2	C K T	B K R	VA	LOAD DESCRIPTION	
T-MOBILE EQUIPMENT CABINET 6160	8400	150	1			2		-	SURGE PROTECTIVE DEVICE	
	8400		3	8400	4	60	-			
			5	8580	6	20	180		PPC RECEPTACLE	
			7		380	8	20	380		LIGHT AND RECEPT.
CABINET 6160 GFI	180	15	9	180		10			SPACE	
SPACE			11			12			SPACE	
SPACE			13			14			SPACE	
SPACE			15			16			SPACE	
SPACE			17			18			SPACE	
SPACE			19			20			SPACE	
SPACE			21			22			SPACE	
GENERATOR GFI RECEPT.	960	20	23	960	24				SPACE	
				8760	9740					
									TOTAL kVA: 18.50	

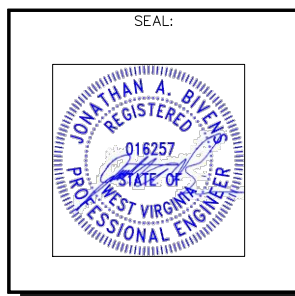
T-MOBILE PANEL CAPACITY: 48 kVA; PANEL PPC CONNECTED LOAD: 18.50 kVA
 18.50 kVA x 1.25 (CONTINUOUS LOAD FACTOR) = 23.13 kVA
 THE CONNECTED LOAD DOES NOT EXCEED THE PANEL'S CAPACITY.

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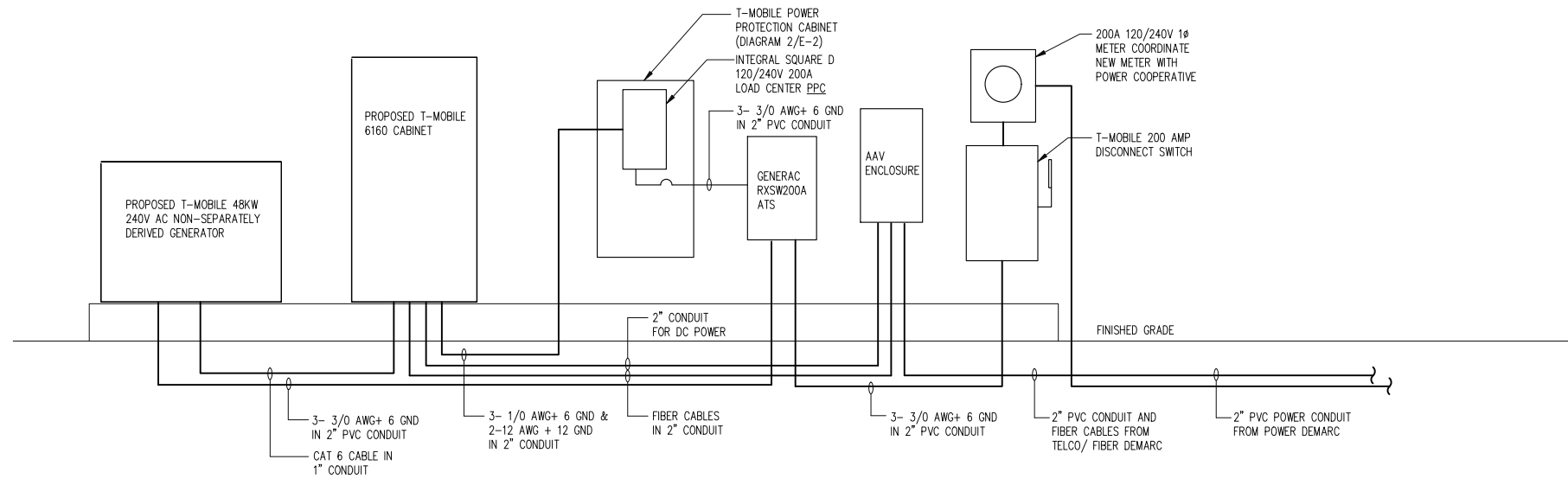
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0 1/2 1
 GRAPHIC SCALE IN INCHES

TITLE:
ELECTRICAL PLAN AND PANEL SCHEDULE

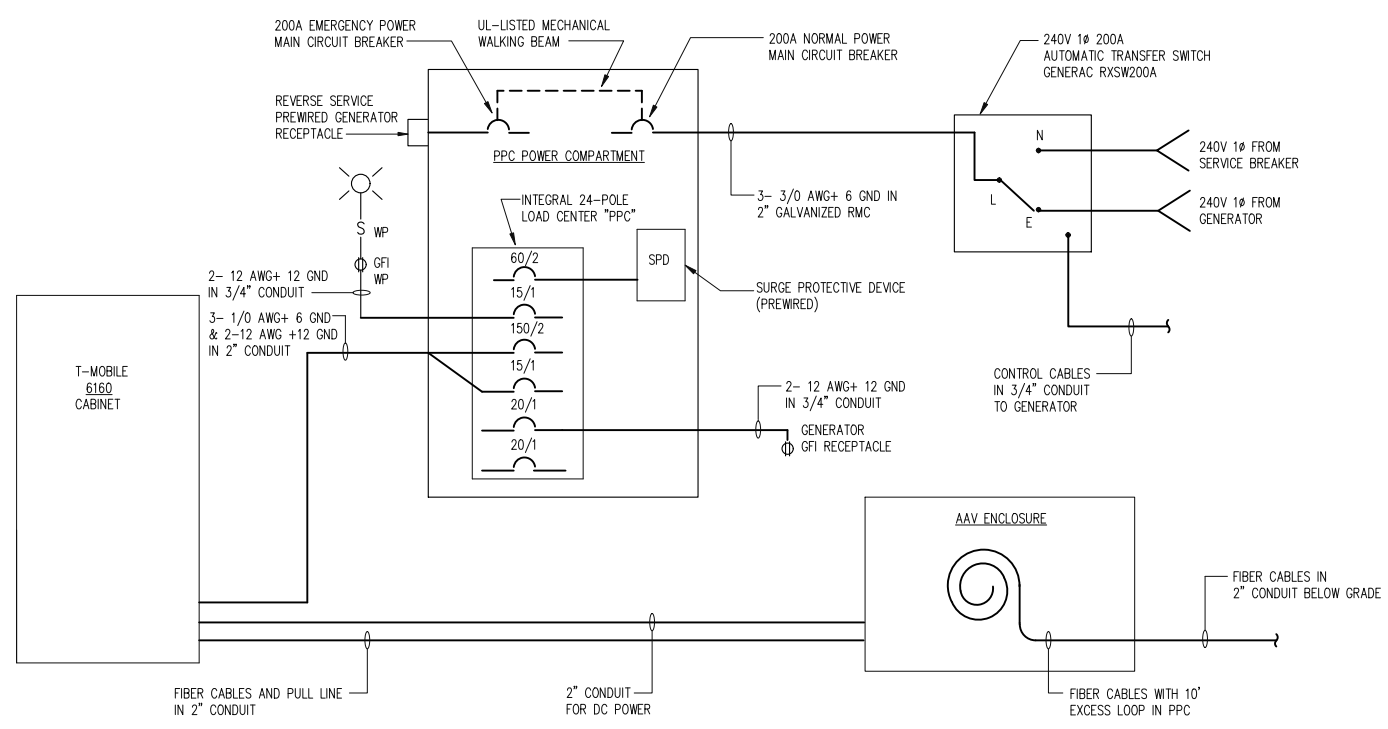
SHEET NUMBER:
E-1



- NOTES:**
1. ALL ELECTRICAL ITEMS SHALL BE U.L. LISTED AND LABELED FOR THEIR INTENDED USE.
 2. PROVIDE PULL BOXES AND JUNCTION BOXES WHERE REQUIRED SO THAT TOTAL CONDUIT BENDS DO NOT EXCEED 360°.
 3. COORDINATE NEW METER IN EXISTING METER BASE WITH UTILITY COMPANY

UTILITY RISER DIAGRAM
SCALE: N.T.S.

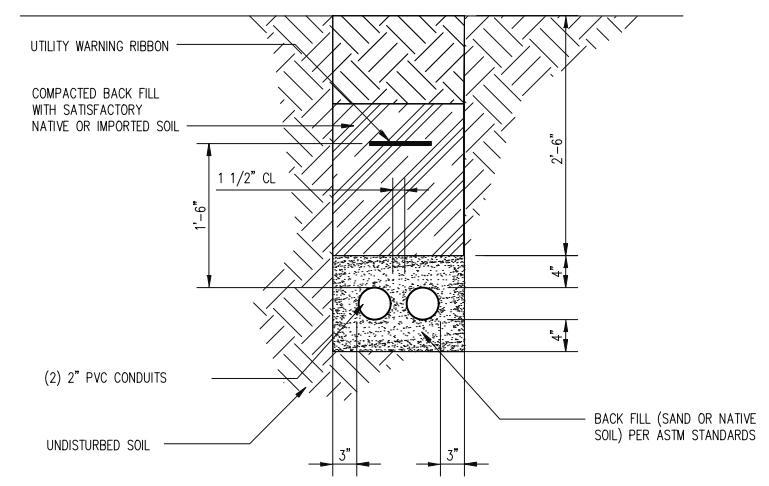
1
E-2



- NOTES:**
1. PPC ENCLOSURE, A.T.S. AND NFSS ARE RATED NEMA 3R.
 2. BOND TELCO SURGE PROTECTIVE DEVICE TO TELCO GROUND BUSS WITH 2 AWG GREEN-INSULATED WIRE.

POWER ONE-LINE DIAGRAM
SCALE: N.T.S.

2
E-2



- NOTES:**
1. EACH CONDUIT SHALL HAVE ONE \"POLYOLEFIN\", 1000 POUNDS STRESS PULL LINE INSTALLED, TO ACCOMMODATE THE PULLING CABLE.

CONDUIT BURIAL DETAIL
SCALE: 1\"/>

3
E-2

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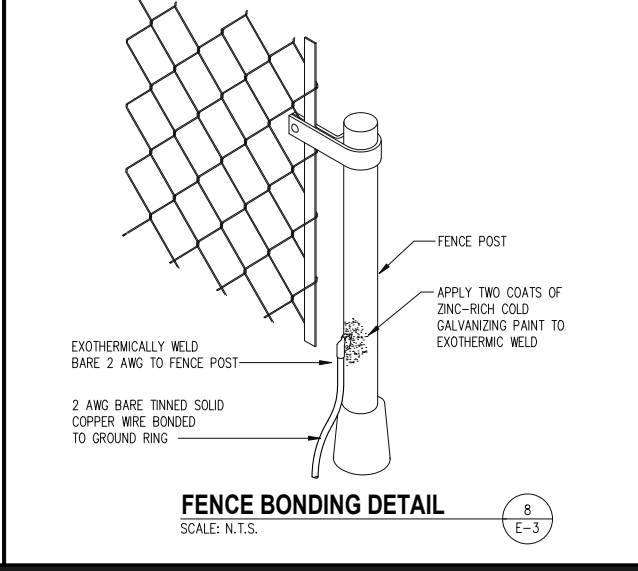
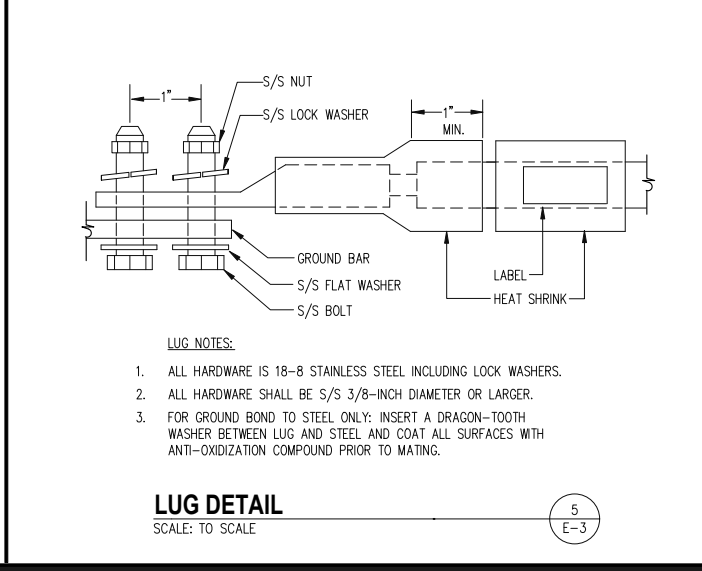
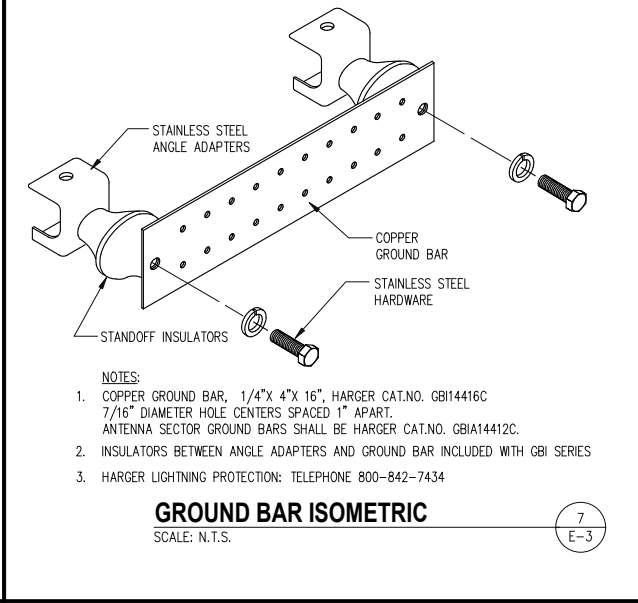
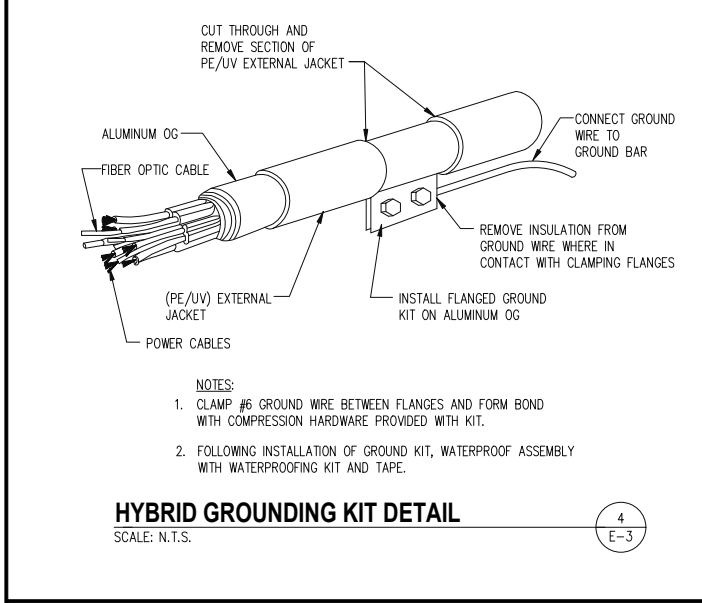
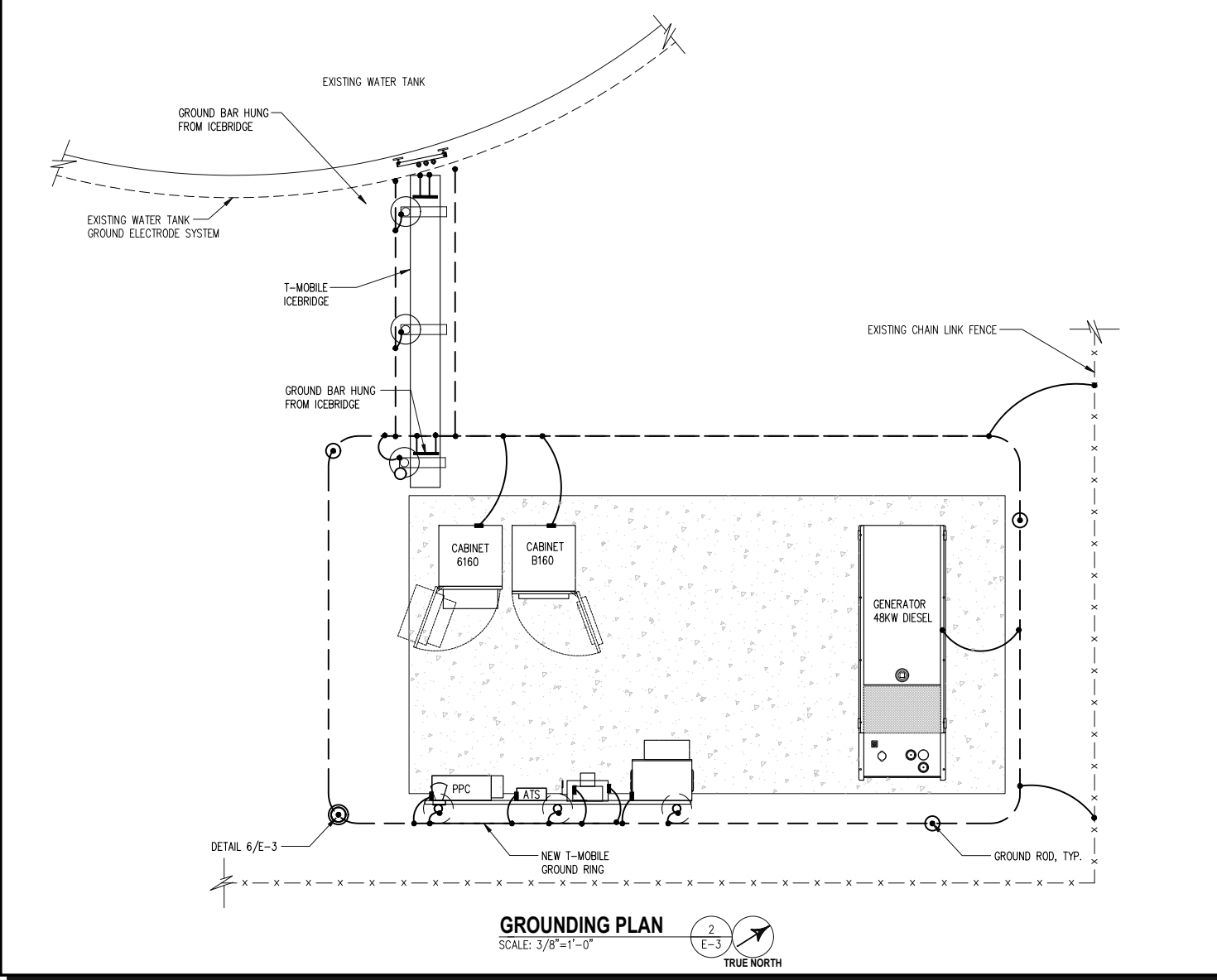
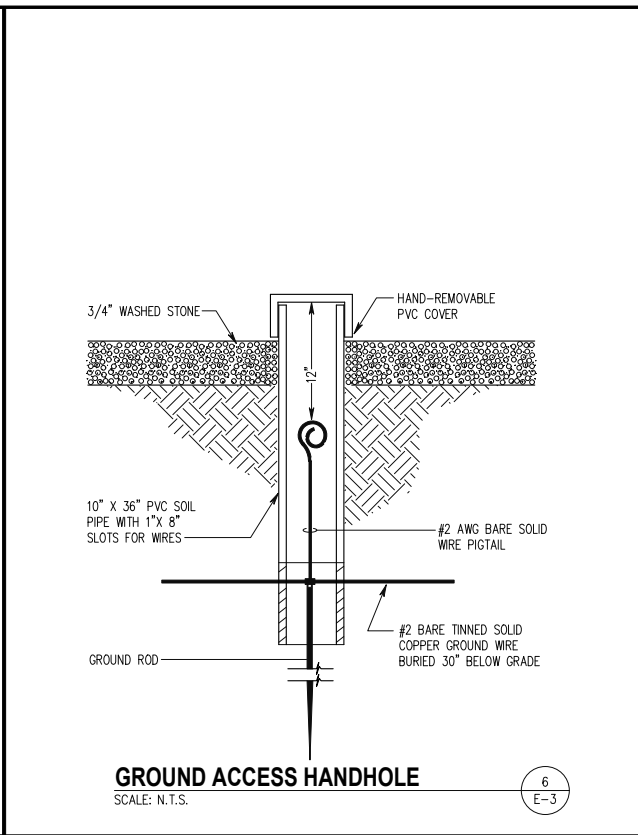
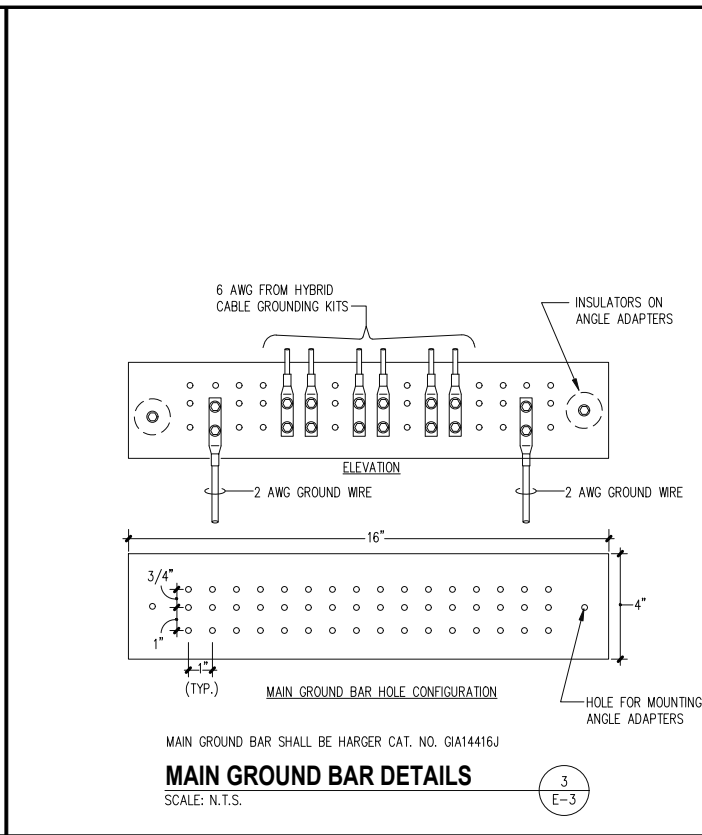
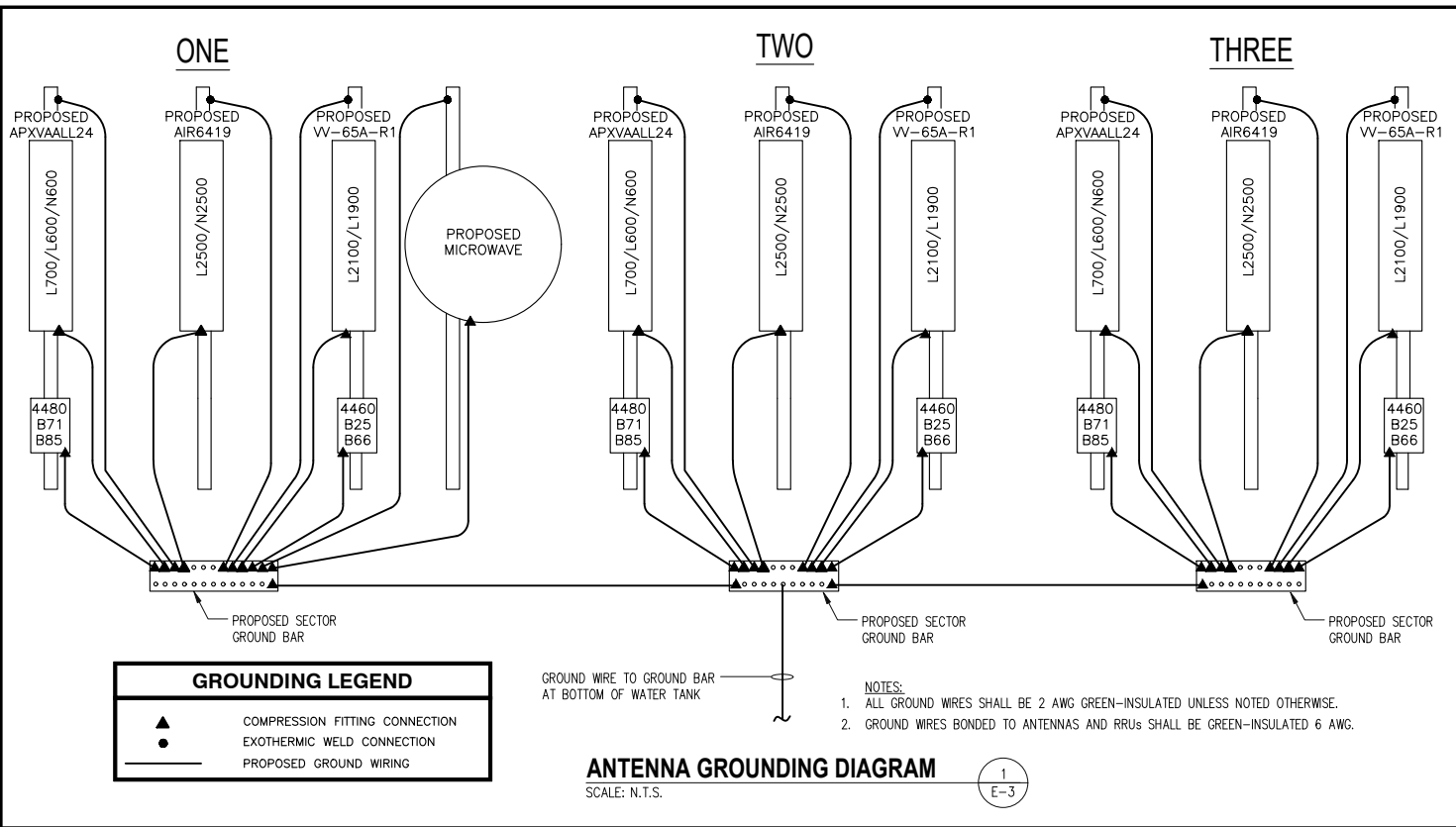
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POWER DIAGRAMS AND DETAIL

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E-2



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GRAPHIC SCALE IN INCHES

TITLE:
GROUNDING DIAGRAMS AND DETAILS

SHEET NUMBER:
E-3