

April 14, 2021

Middletown Planning, Conservation, and Development
Attn: Marek Kozikowski, City Planner
245 deKoven Drive, Suite 202
Middletown, CT 06457
(860) 638-4842
Marek.Kozikowski@middletownct.gov

Subject: Invitation to Comment
10578361 / CT3470A / Middletown Mile Lane
499 Mile Lane, Middletown, Middlesex County, CT 06457
EBI Project #6121002237

Dear Joseph Kozikowski:

Pursuant to Section 106 of the National Historic Preservation Act, the regulations promulgated thereunder and interagency agreements developed thereto, EBI Consulting, Inc., on behalf of AT&T Mobility, LLC, provides this notice of a proposed telecommunications facility installation at the address listed above.

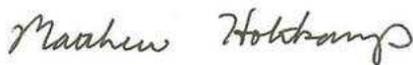
EBI would like to inquire if you would be interested in commenting on this proposed project. Please refer to the attached project plans for additional details regarding this proposed project.

Please note that we are requesting your review of the attached information as part of the Section 106 process only and not as part of the local zoning process. We are only seeking comments related to the proposed project's potential effect to historic properties.

Please submit your comments regarding the proposed project's potential effect on historic properties to EBI Consulting, to my attention at 21 B Street, Burlington, MA 01803, or contact me via telephone at the number listed below. Please reference the EBI project number. We would appreciate your comments as soon as possible within the next 30 days. Please do not hesitate to contact me if you have any questions or concerns about the proposed project.

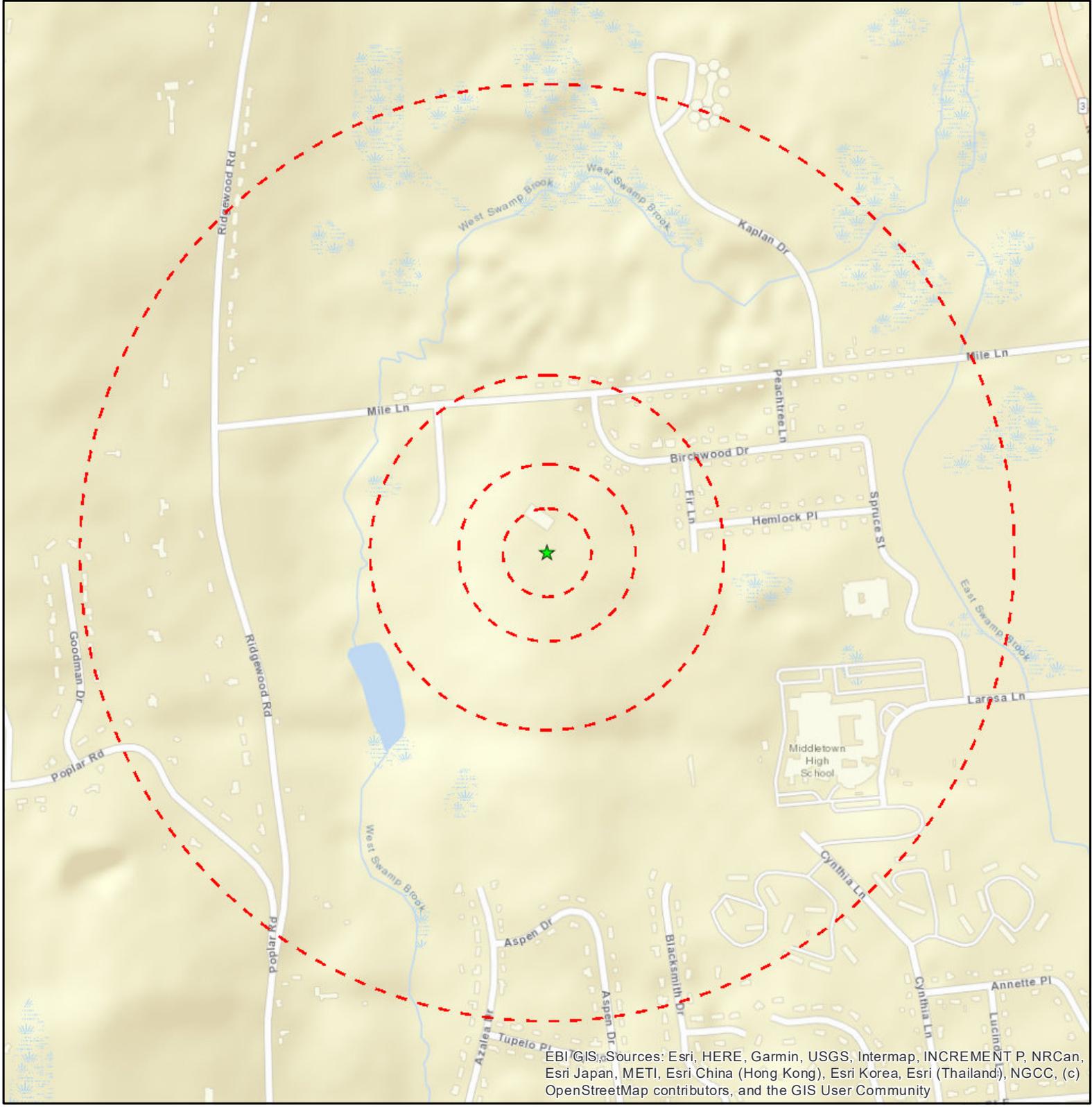
Please note that this project will be entered into the Federal Communication Commission's e106 System, which will send notifications of the project throughout the Section 106 process.

Respectfully Submitted,



Matthew Holtkamp
Architectural Historian III
T (785) 760 5938
mholtkamp@ebiconsulting.com

Attachments - Drawings and Maps



Legend

- ★ Project Site
- Site Radius at 250', 500', 1000' and 1/2 mile

Date: 4/1/2021

Figure 1: Site Location Map

**10578361 / CT3470A MIDDLETOWN MILE LANE
 499 MILE LANE
 MIDDLETOWN, CT 06457**





EBI GIS, Copyright:© 2013 National Geographic Society, i-cubed

Legend

- ★ Project Site
- Site Radius at 250', 500', 1000' and 1/2 mile

USGS 24K Quad: Middletown, CT 1985

Date: 4/1/2021

Figure 2 - Topographic Map

**10578361 / CT3470A MIDDLETOWN MILE LANE
 499 MILE LANE
 MIDDLETOWN, CT 06457**

PN: 6121002237

EBI Consulting
 environmental | engineering | design

APPLICABLE BUILDING CODES AND STANDARDS

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.

BUILDING CODE: 2015 INTERNATIONAL BUILDING CODE

ELECTRICAL CODE: 2017 ELECTRICAL CODE WITH LOCAL AMENDMENTS

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

APPROVED FOR CONSTRUCTION

AT&T CONSTRUCTION _____

AT&T RF _____

AT&T COMPLIANCE _____

AT&T REAL ESTATE _____



SITE NAME: MIDDLETOWN_MILE LANE

SEARCH RING NUMBER: CT3470A

USID: 221794

FA NUMBER: 10578361

SITE ADDRESS: 499 MILE LANE
MIDDLETOWN, CT 06457

SITE TYPE: MONOPINE

PACE #: MRCTB033524



7150 STANDARD DRIVE
HANOVER, MD 21076



1362 MELLON ROAD, SUITE 140
HANOVER, MD 21076

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SCHAUMBURG, ILLINOIS 60173
TEL: 847-908-8400
COA# PEC.0001444
www.FullertonEngineering.com

PROJECT INFORMATION

SITE NAME: MIDDLETOWN_MILE LANE

USID: 221794

SITE ADDRESS: 499 MILE LANE
MIDDLETOWN, CT 06457

SITE TYPE: MONOPINE

COUNTY: MIDDLESEX

JURISDICTION: MIDDLESEX COUNTY

APN: -

ZONING CLASSIFICATION: R15 - RESIDENTIAL

FA#: 10578361

APPLICANT: NEW CINGULAR WIRELESS PCS, LLC
550 COCHITUATE ROAD, SUITE 13 & 14
FRAMINGHAM, MA 01701

SITE COORDINATES:

LATITUDE: 41.58000°

LONGITUDE: -72.6857900°

GROUND ELEV. (A.M.S.L.): 134'

PROPERTY OWNER: CITY OF MIDDLETON
245 DEKOVEN DRIVE, MIDDLETOWN, CT 06457

POWER COMPANY:

TELEPHONE COMPANY:

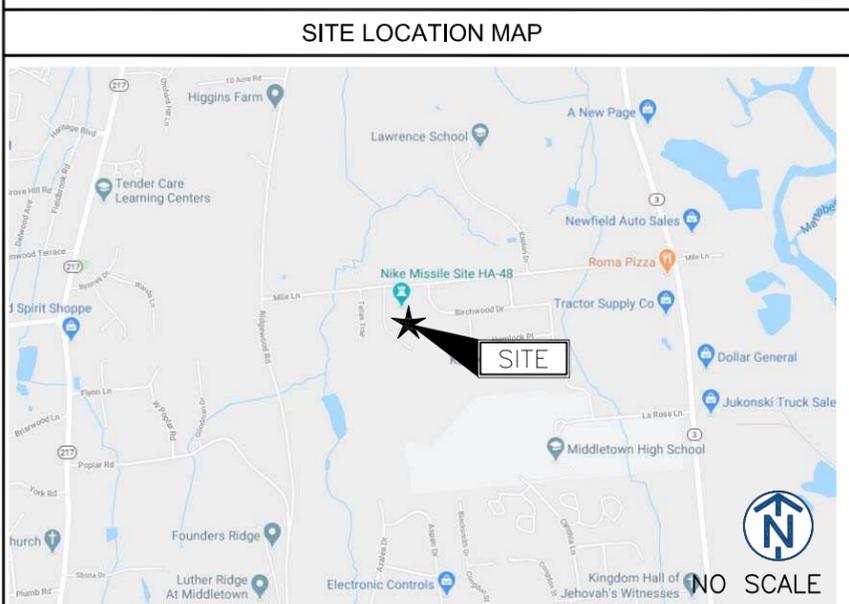
PROPOSED USE: TELECOMMUNICATIONS FACILITY

SCOPE OF WORK

THE SCOPE OF WORK CONSISTS OF:

- (1) NEW MONOPINE
- (9) NEW ANTENNAS
- (3) NEW ANTENNA SECTOR MOUNTS
- (3) NEW RRR-4478 B14
- (3) NEW RRR-4415 B30
- (3) NEW RRR-4449 B5/B12
- (3) NEW RRR-8843 B2/B66A
- (2) NEW DC6-48-60-18-8F RAYCAP UNITS, (1) NEW DC6-48-60-0-8C RAYCAP UNIT
- (2) NEW FIBER TRUNKS, (6) NEW DC POWER TRUNKS
- NEW 6'-8"x6'-8" WIC SHELTER ON NEW 8'x8' CONCRETE SLAB
- NEW 20KW DIESEL GENERATOR W/FUEL TANK ON NEW 4'x6' CONCRETE SLAB W/ CONTAINMENT CURB PIT

- CONTRACTOR SHALL FURNISH ALL MATERIAL WITH THE EXCEPTION OF AT&T SUPPLIED MATERIAL.
- ALL MATERIAL SHALL BE INSTALLED BY THE CONTRACTOR, UNLESS STATED OTHERWISE.



DRAWING INDEX

REV	DATE	DESCRIPTION	BY
0	03/02/20	90% REVIEW	KC
1	03/18/20	FOR PERMIT	RO
2	06/09/20	FOR PERMIT	KC
3	07/14/20	FOR PERMIT	KC

NO.	DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1	SITE PLAN
C-2	ENLARGED SITE PLAN
C-2A	EQUIPMENT PLAN
C-3	ELEVATIONS
C-3A	ANTENNA PLAN
C-4	SITE DETAILS
C-4A	SITE DETAILS
C-4B	FENCE DETAILS
C-5	WIC SHELTER ELEVATIONS
C-6	GENERATOR
C-7	ANTENNA INFORMATION CHART
C-8	RFDS
E-1	UTILITY PLAN
E-1A	ENLARGED UTILITY PLAN
E-2	ELECTRICAL NOTES AND DETAILS
G-1	GROUNDING PLAN
G-2	GROUNDING NOTES AND DETAILS
G-3	GROUNDING NOTES AND DETAILS
S-1	CONCRETE PAD DETAILS

SITE NUMBER
CT3470A

SITE NAME
MIDDLETOWN_MILE LANE

FA NUMBER:
10578361

USID:
221794

SITE ADDRESS
499 MILE LANE
MIDDLETOWN, CT 06457

PROJECT CONSULTANTS

	NAME	COMPANY	PHONE
A/E	MILEN DIMITROV	FULLERTON	(847) 908-8439
REAL ESTATE	ADRIANNE BANKS	SMARTLINK	(603) 261-6416
AT&T RF	RADU ALECSANDRU	AT&T	(203) 317-6444
PM	APRIL GRASSO	SMARTLINK	(603) 261-6416
CM	BOB PICARD	SMARTLINK	(781) 290-9276

DIRECTIONS

SCAN QR CODE FOR LINK TO SITE LOCATION MAP





DRAWING SCALES ARE FOR 11"x17" SHEETS

SHEET NAME
TITLE SHEET

SHEET NUMBER
T-1

GENERAL:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING ALL LAWS, REGULATIONS, AND RULES SET FORTH BY FEDERAL, STATE, AND LOCAL AUTHORITIES WITH JURISDICTION OVER THE PROJECT. THIS RESPONSIBILITY IS IN EFFECT REGARDLESS OF WHETHER THE LAW, ORDINANCE, REGULATION OR RULE IS MENTIONED IN THESE SPECIFICATIONS.
2. ALL WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS, PROJECT SPECIFICATIONS, AND THE CONSTRUCTION CONTRACT DOCUMENTS.
3. THE CONTRACTOR SHALL HAVE AND MAINTAIN A VALID CONTRACTOR'S LICENSE FOR THE LOCATION IN WHICH THE WORK IS TO BE PERFORMED. FOR JURISDICTIONS THAT LICENSE INDIVIDUAL TRADES, THE TRADESMAN OR SUBCONTRACTOR PERFORMING THOSE TRADES SHALL BE LICENSED.
4. FOLLOW ALL APPLICABLE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND STATE LAW AS DEFINED IN THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT.
5. PRIOR TO THE SUBMISSION OF THE BID, THE CONTRACTOR SHALL VISIT THE JOB SITE, VERIFY ALL DIMENSIONS AND BECOME FAMILIAR WITH THE FIELD CONDITIONS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER.
6. DRAWING PLANS SHALL NOT BE SCALED.
7. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK NOT CLEARLY IDENTIFIED ON THE DRAWINGS WITHOUT THE PRIOR WRITTEN APPROVAL OF THE PROJECT MANAGER.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS UNLESS SPECIFICALLY OTHERWISE NOTED.
9. ALL MEANS AND METHODS OF CONSTRUCTION DEALING WITH TOWER CONSTRUCTION AND SAFETY, STEEL ERECTION, EXCAVATIONS, TRENCHING, SCAFFOLDING, FORMWORK, ELECTRICAL, AND WORK IN CONFINED SPACES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. WHEN THE CONTRACTOR ACTIVITIES IMPEDE OR OBSTRUCT TRAFFIC FLOW, CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL DEVICES, SIGNS, AND FLAGMEN IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, DOT AND LOCAL REQUIREMENTS.
11. THE CONTRACTOR SHALL COORDINATE SITE ACCESS AND SECURITY WITH THE PROPERTY OWNER AND THE PROJECT MANAGER PRIOR TO CONSTRUCTION.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH UTILITIES.
13. THE CONTRACTOR SHALL CALL THE LOCAL PUBLIC UTILITY LOCATING PROVIDER (811) A MINIMUM OF THREE BUSINESS DAYS PRIOR TO EXCAVATING IN THE PUBLIC RIGHT OF WAY.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING PRIVATE UTILITIES.
15. THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY UTILITIES OR FACILITIES IT DEEMS NECESSARY TO COMPLETE THE WORK. THIS INCLUDES, BUT IS NOT LIMITED TO WATER, SEWER, POWER, TELEPHONE, HEAT, LIGHTING OR SECURITY.
16. WHEN EXCAVATING IN THE AREA OF EXISTING UTILITIES, THE CONTRACTOR SHALL USE REASONABLE CARE IN PROTECTING SUCH UTILITIES. CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER IMMEDIATELY OF ANY CONFLICTS BETWEEN EXISTING UTILITIES AND PROPOSED CONSTRUCTION.
17. DAMAGE TO PUBLIC OR PRIVATE UTILITIES SHALL BE REPORTED TO THE PROJECT MANAGER AND THE OWNER OF THE UTILITY IMMEDIATELY. ANY DAMAGE RESULTING FROM CONTRACTORS NEGLIGENCE OR FAILURE TO ACT WITH DUE REGARD SHALL BE REPAIRED AT CONTRACTORS EXPENSE.
18. UNLESS OTHERWISE NOTED ON THE PLANS, CONTRACTOR SHALL ASSUME ALL SURFACE FEATURES SUCH AS BUT NOT LIMITED TO BUILDINGS, PAVEMENTS, LANDSCAPING FEATURES, PLANTS, ETC. ARE TO BE SAVED AND PROTECTED FROM DAMAGE. CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING SITE CONDITIONS AND UPON COMPLETION OF WORK REPAIR BACK TO ORIGINAL CONDITIONS ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION.
19. KEEP THE CONSTRUCTION SITE CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION AND SHALL BE SUBJECT TO APPROVAL BY THE PROPERTY OWNER AND THE PROJECT MANAGER.
20. THE CONTRACTOR SHALL PROVIDE ON-SITE TRASH RECEPTACLES FOR COLLECTION OF NON-TOXIC DEBRIS. ALL TRASH SHALL BE COLLECTED ON A DAILY BASIS.
21. ALL TOXIC AND ENVIRONMENTALLY HAZARDOUS SUBSTANCES SHALL BE USED AND DISPOSED OF IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS. UNDER NO CIRCUMSTANCES SHALL RINSING OR DUMPING OF THESE SUBSTANCES OCCUR ON-SITE.
22. UNLESS NOTED OTHERWISE, CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS NECESSARY FOR CONSTRUCTION.
23. THE PROJECT MANAGER MAY RETAIN THE SERVICES OF A TESTING LABORATORY TO PERFORM QUALITY ASSURANCE TESTING ON VARIOUS PORTIONS OF THE CONTRACTORS WORK. WHEN REQUESTED, THE CONTRACTOR SHALL INFORM THE TESTING LABORATORY AND ASSIST THEM IN COMPLETING TESTS.
24. THE CONTRACTOR SHALL MAINTAIN AND SUPPLY THE PROJECT MANAGER WITH AS-BUILT PLANS UPON COMPLETION OF THE PROJECT.

ELECTRIC:

1. THE CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY AND LOCAL CODES AND OSHA REQUIREMENTS.
2. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES.
3. THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS AND TRANSPORTATION FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS.
4. THE CONTRACTOR SHALL OBTAIN ALL PERMITS, PAY PERMIT AND INSPECTION FEES, AND BE RESPONSIBLE FOR SCHEDULING INSPECTIONS WITH THE AUTHORITY HAVING JURISDICTION.
5. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, IEEE, NEMA AND NFPA.
6. ALL MATERIALS SHALL BE U.L. LISTED.
7. ALL MATERIALS 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.
8. MATERIALS SHALL MEET WITH APPROVAL OF THE AUTHORITY HAVING JURISDICTION.
9. THE CONTRACTOR SHALL PERFORM ALL VERIFICATION OBSERVATIONS TEST, AND EXAMINATION WORK PRIOR TO THE ORDERING OF THE ELECTRICAL EQUIPMENT AND STARTING CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE PROJECT MANAGER LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
10. THE CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF THE TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS TO BE PAID BY CONTRACTOR.
11. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL OF POTENTIAL GROUND TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO THE PROJECT MANAGER.
12. ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO THE PROJECT MANAGER AT JOB COMPLETION.
13. POST-INSTALLATION, ANY WORK, MATERIAL OR EQUIPMENT FOUND TO BE FAULTY SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
14. PROVIDE THE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS-INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS AND CIRCUITS.
15. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS NOTING USE FUNCTION.
16. EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANEL BOARD, PULL BOX, J-BOX, SWITCH BOX, ETC.
17. ALL CONDUIT INSTALLED SHALL BE SURFACE MOUNTED OR DIRECT BURIAL UNLESS OTHERWISE NOTED.
18. ALL CONDUIT SHALL HAVE A PULL WIRE OR ROPE.
19. ALL CONDUCTORS SHALL BE COPPER.
20. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.
21. PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
22. PENETRATIONS IN FIRE RATED WALLS SHALL BE FIRE STOPPED TO MATCH ORIGINAL RATING.
23. BX OR ROMEX CABLE IS NOT PERMITTED.
24. ALL ELECTRICAL/FIBER ENCLOSURES, JUNCTION BOXES, CONDUIT KNOCKOUTS, RACEWAYS, ETC. SHALL BE RODENT-PROOF.
25. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.



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HANOVER, MD 21076



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SCHAUMBURG, ILLINOIS 60173
TEL: 847-908-8400
COA# PEC.0001444
www.FullertonEngineering.com

REV	DATE	DESCRIPTION	BY
0	03/02/20	90% REVIEW	KC
1	03/18/20	FOR PERMIT	RO
2	06/09/20	FOR PERMIT	KC
3	07/14/20	FOR PERMIT	KC

SITE NUMBER
CT3470A

SITE NAME
**MIDDLETOWN_MILE
LANE**

FA NUMBER:
10578361

USID:
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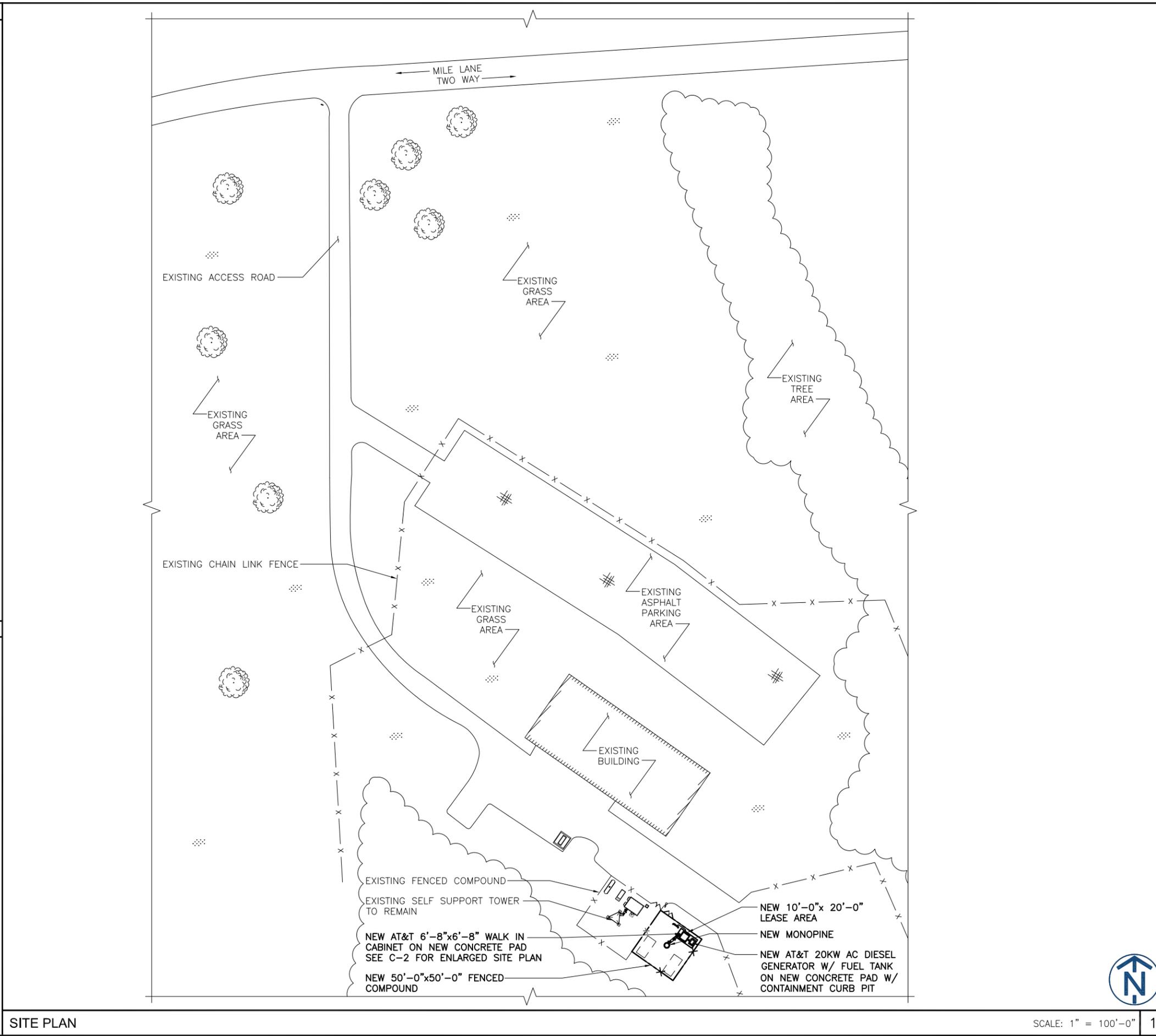
SITE ADDRESS
**499 MILE LANE
MIDDLETOWN, CT 06457**

SHEET NAME
**GENERAL
NOTES**

SHEET NUMBER
T-2

ABBREVIATIONS	
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AGL	ABOVE GROUND LEVEL
AMSL	ABOVE MEAN SEA LEVEL
APPROX	APPROXIMATE
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
BBU	BASE BAND UNIT
CL	CENTERLINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CND	CONDUIT
CRAN	CENTRALIZED RAN
C-RAN	CLOUD RAN
DWG	DRAWING
FT	FOOT(FEET)
EGB	EQUIPMENT GROUND BAR
ELEC	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
ELEV	ELEVATION
EQUIP	EQUIPMENT
(E)	EXISTING
EXT	EXTERIOR
FND	FOUNDATION
F	FIBER
GA	GAUGE
GALV	GALVANIZED
GPS	GLOBAL POSITIONING SYSTEM
GND	GROUND
GSM	GLOBAL SYSTEM FOR MOBILE COMMUNICATION
LTE	LONG TERM EVOLUTION
MAX	MAXIMUM
MFR	MANUFACTURER
MGB	MASTER GROUND BAR
MIN	MINIMUM
MIMO	MULTIPLE IN MULTIPLE OUT
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
PPC	POWER PROTECTION CABINET
P	PROPERTY LINE
RAN	RADIO ACCESS NETWORK
RBS	RADIO BASED STATION
RRH	REMOTE RADIO HEAD
RGS	RIGID GALVANIZED STEEL
IN	INCH(ES)
INT	INTERIOR
LB(S), #	POUND(S)
SF	SQUARE FOOT
STL	STEEL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UMTS	UNIVERSAL MOBILE TELE-COMMUNICATION SYSTEM
VIF	VERIFY IN FIELD
W/	WITH
XFMR	TRANSFORMER

SYMBOLS	
#	REVISION
⊕	WORK POINT
⊙	UTILITY POLE
[Hatched]	BRICK
[Dotted]	COMPRESSED STONE
[Stippled]	CONCRETE
[Cross-hatched]	EARTH
[Diagonal lines]	GRAVEL
[Vertical lines]	MASONRY
[Horizontal lines]	STEEL
---	CENTERLINE
- - -	PROPERTY LINE
- · - · -	LEASE LINE
- · - · -	EASEMENT LINE
- · - · -	FENCE
X-X	CHAINLINK
□-□	WOOD
○-○	WROUGHT IRON
E-E	ELECTRIC
OE-OE	OVERHEAD
UE-UE	UNDERGROUND
F-F	FIBER
OF-OF	OVERHEAD
UF-UF	UNDERGROUND
T-T	TELEPHONE
OT-OT	OVERHEAD
UT-UT	UNDERGROUND
DC-DC	DCPOWER
LA	SECTION REFERENCE



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FA NUMBER:
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SITE ADDRESS
**499 MILE LANE
MIDDLETOWN, CT 06457**

SHEET NAME
SITE PLAN

SHEET NUMBER
C-1



SCALE: 1" = 100'-0" 1

SITE PLAN



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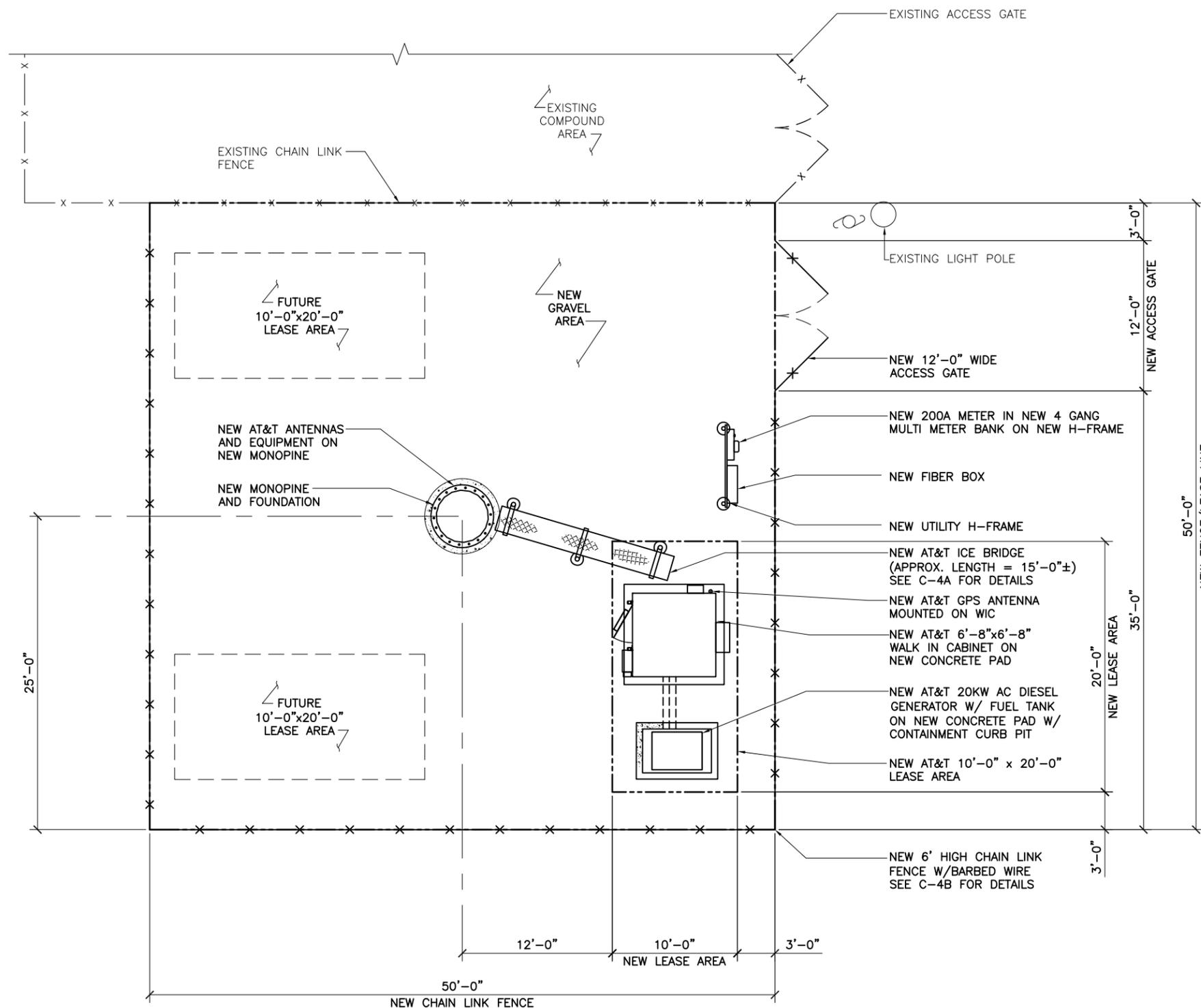


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FA NUMBER:	10578361
USID:	221794
SITE ADDRESS	499 MILE LANE MIDDLETOWN, CT 06457
SHEET NAME	ENLARGED SITE PLAN
SHEET NUMBER	C-2





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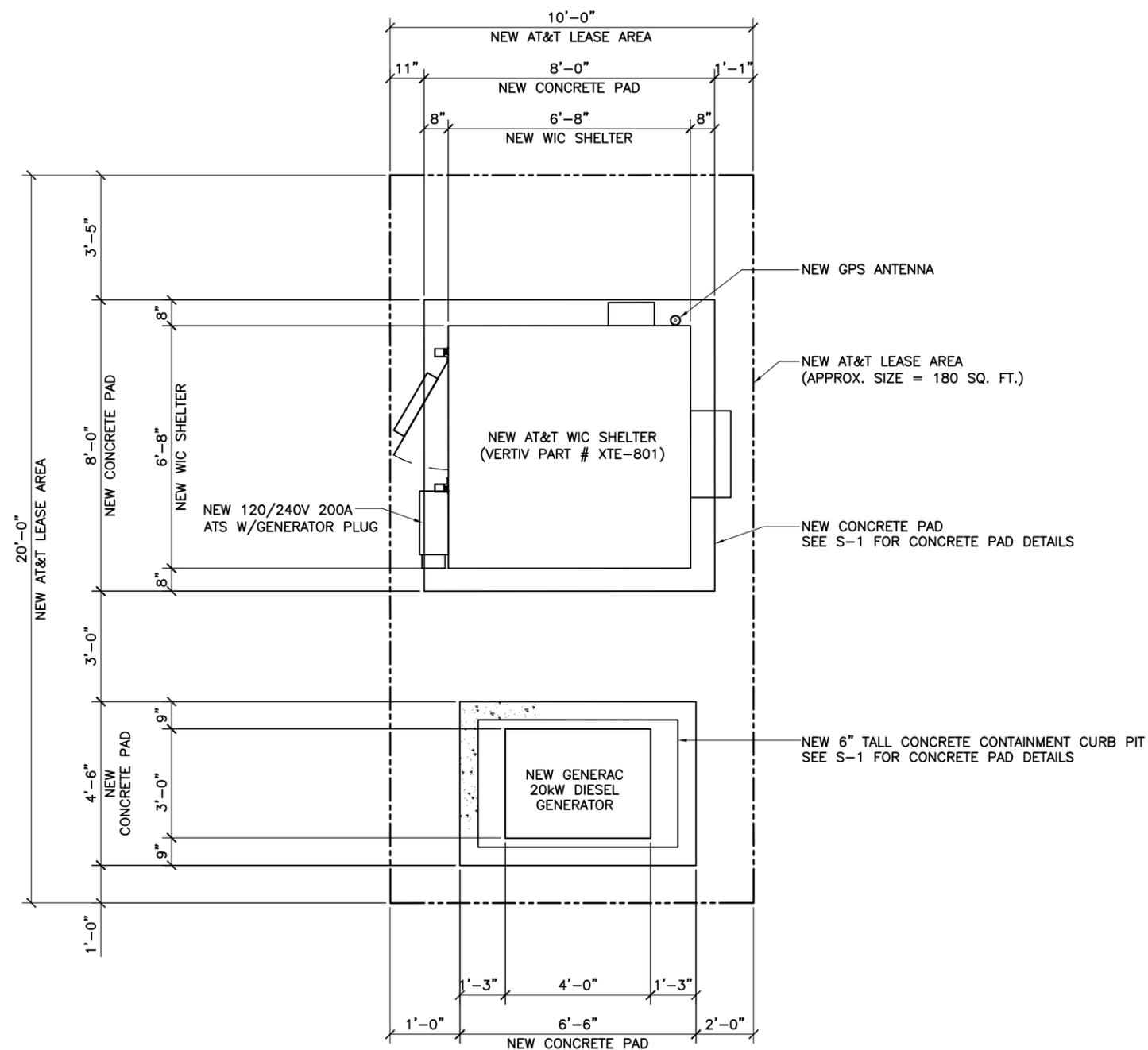


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SITE NAME	MIDDLETOWN_MILE LANE
FA NUMBER:	10578361
USID:	221794
SITE ADDRESS	499 MILE LANE MIDDLETOWN, CT 06457
SHEET NAME	EQUIPMENT PLAN
SHEET NUMBER	C-2A



T/ OF EXISTING SELF-SUPPORT TOWER
ELEV. = 180'-0" AGL

EXISTING OMNI ANTENNA
ELEV. = 150'-0" AGL

EXISTING DISH ANTENNA
(TYP.)

EXISTING OMNI ANTENNA
C OF EXISTING DISH ANTENNA
ELEV. = 130'-0" AGL

EXISTING OMNI ANTENNA
ELEV. = 110'-0" AGL

EXISTING OMNI ANTENNA
(TYP.)

EXISTING SELF-SUPPORT TOWER
TO REMAIN

EXISTING PROPANE TANK

EXISTING CHAIN-LINK
FENCE (TYP.)

EXISTING OTHER CARRIER'S
EQUIPMENT SHELTER (TYP.)

T/ GRADE
ELEV. = 0'-0" AGL



SCALE: 1" = 20'-0"

1

NOTES:

1. CALCULATIONS FOR THE STRUCTURE WERE PREPARED BY OTHERS AND THOSE CALCULATIONS CERTIFY THE CAPACITY OF THE STRUCTURE TO SUPPORT THE NEW EQUIPMENT
2. CALCULATIONS FOR THE ANTENNA MOUNTS WERE PREPARED BY FULLERTON AND THOSE CALCULATIONS CERTIFY THE CAPACITY OF THE STRUCTURE TO SUPPORT THE NEW EQUIPMENT
3. CABLES NOT SHOWN FOR CLARITY

T/ OF NEW MONOPINE
C OF NEW AT&T ANTENNAS
ELEV. = 150'-0" AGL

- (9) NEW ANTENNAS
- (12) NEW RRH UNITS
- (3) NEW DC6 RAYCAP UNITS
- ON NEW HD V-BOOM
- COLLAR BRACKET KIT

NEW MONOPINE

- (2) NEW FIBER CABLES
- (6) NEW DC CABLES WITHIN
- (4) NEW 2" FLEX INNER DUCTS
- ROUTED ON INTERIOR OF NEW MONOPINE
- SUPPORT ON NEW J-HOOKS
- PROVIDE DRIP LOOP AT BOTTOM

NEW 8' HIGH CHAIN LINK
FENCE W/BARBED WIRE

T/ GRADE
ELEV. = 0'-0" AGL



SCALE: 1" = 20'-0"

2



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1	03/18/20	FOR PERMIT	RO
2	06/09/20	FOR PERMIT	KC
3	07/14/20	FOR PERMIT	KC

SITE NUMBER

CT3470A

SITE NAME

MIDDLETOWN_MILE
LANE

FA NUMBER:

10578361

USID:

221794

SITE ADDRESS

499 MILE LANE
MIDDLETOWN, CT 06457

SHEET NAME

ELEVATIONS

SHEET NUMBER

C-3

EXISTING ELEVATION

NEW ELEVATION



7150 STANDARD DRIVE
HANOVER, MD 21076

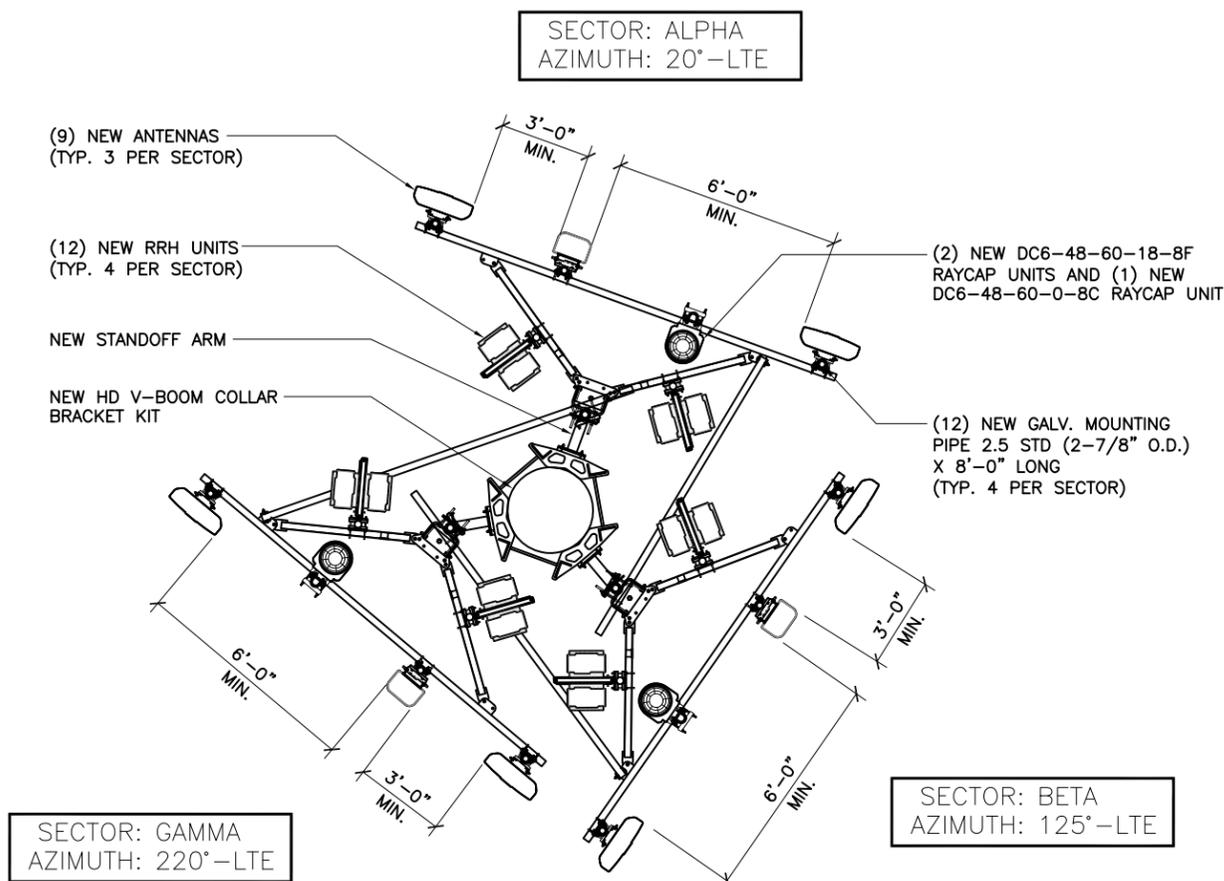


1362 MELLON ROAD, SUITE 140
HANOVER, MD 21076



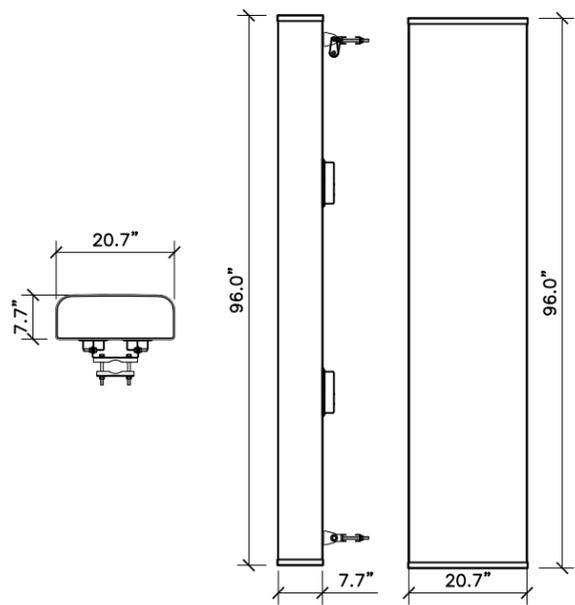
1100 E. WOODFIELD ROAD, SUITE 500
SCHAUMBURG, ILLINOIS 60173
TEL: 847-908-8400
COA# PEC.0001444
www.FullertonEngineering.com

REV	DATE	DESCRIPTION	BY
0	03/02/20	90% REVIEW	KC
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2	06/09/20	FOR PERMIT	KC
3	07/14/20	FOR PERMIT	KC



SITE NUMBER	CT3470A
SITE NAME	MIDDLETOWN_MILE LANE
FA NUMBER:	10578361
USID:	221794
SITE ADDRESS	499 MILE LANE MIDDLETOWN, CT 06457
SHEET NAME	ANTENNA PLAN
SHEET NUMBER	C-3A



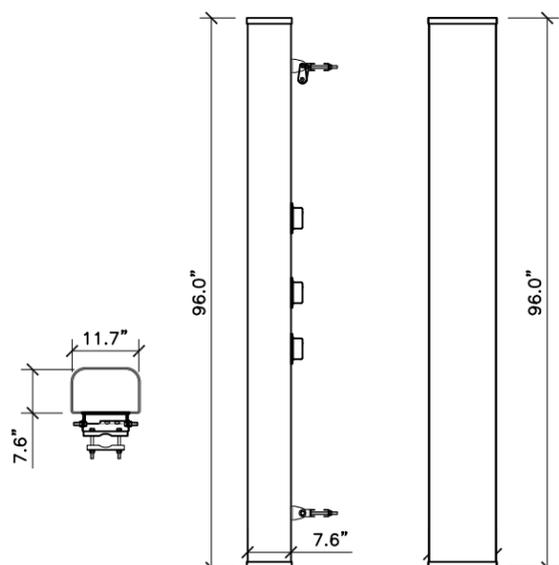


PLAN VIEW SIDE VIEW FRONT VIEW

CCI - TPA65R-BU8DA
MULTI-BAND TWELVE PORT ANTENNA

FREQUENCY RANGE 4 LOW x 698-896 MHz
8 HIGH x 1695-2400 MHz

ANTENNA 87.1 Lbs

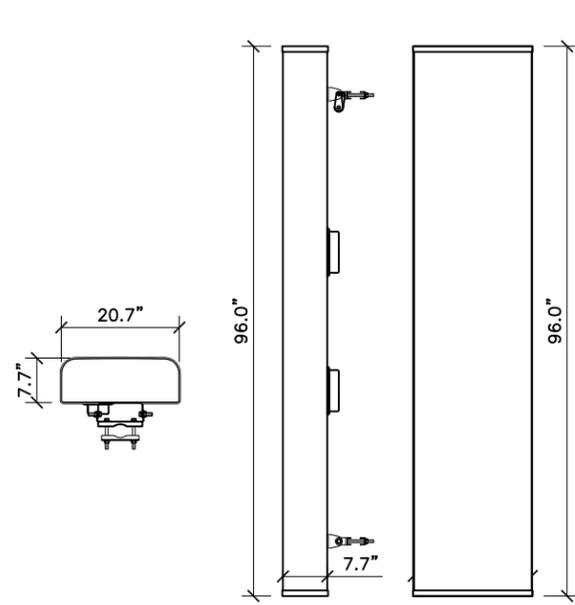


PLAN VIEW SIDE VIEW FRONT VIEW

CCI - HPA65R-BU8A
HEXPORT MULTI-BAND ANTENNA

FREQUENCY RANGE 2 x LOW BAND 698-896 MHz
4 x HIGH BAND 1695-2400 MHz

ANTENNA 54.0 Lbs
(3) RETS 5.0 Lbs
BRACKET 16.6 Lbs
TOTAL WEIGHT 75.6 Lbs

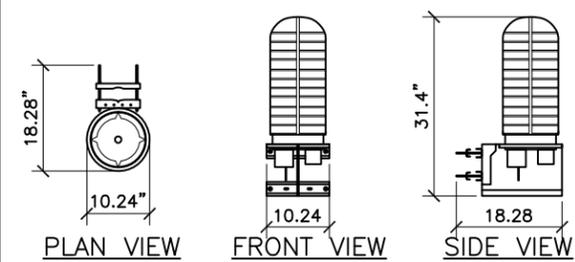


PLAN VIEW SIDE VIEW FRONT VIEW

CCI - DMP65R-BU8DA
DIPLEXED MULTI-BAND ANTENNA

FREQUENCY RANGE 4 LOW x 698-896 MHz
4 HIGH 1695-2400 MHz

ANTENNA 95.7 Lbs
(3) RETS 15 Lbs
BRACKET 16.1 Lbs
TOTAL WEIGHT 126.8 Lbs



PLAN VIEW FRONT VIEW SIDE VIEW

RAYCAP - DC6-48-60-0-8C

SYSTEM WEIGHT 16.0 Lbs
MOUNT WEIGHT 10.2 Lbs
TOTAL WEIGHT 26.2 Lbs
DIMENSIONS (LxWxH) 18.28"x10.24"x31.4"



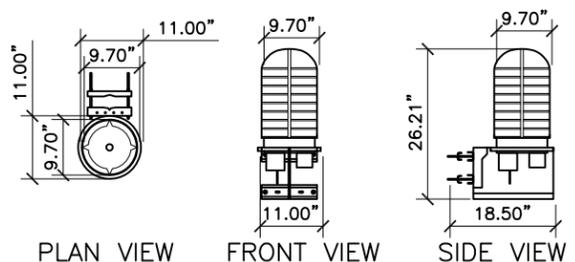
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1	03/18/20	FOR PERMIT	RO
2	06/09/20	FOR PERMIT	KC
3	07/14/20	FOR PERMIT	KC

ANTENNA SPECS SCALE: N.T.S. 1

ANTENNA SPECS SCALE: N.T.S. 2

ANTENNA SPECS SCALE: N.T.S. 3

RAYCAP SPEC SCALE: N.T.S. 4



PLAN VIEW FRONT VIEW SIDE VIEW

RAYCAP - DC6-48-60-18-8F

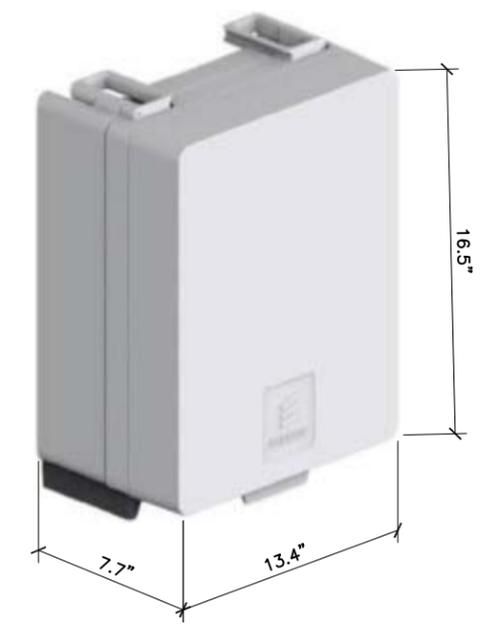
TOWER DC OVER VOLTAGE PROTECTION POWER CONNECTION SOLUTION

UNIT WEIGHT 32.8 Lbs

RAYCAP SPEC SCALE: N.T.S. 5

Size and Weight				
Radio 8843 B06A, B2	Height	Width	Depth	Weight
w/o protruding items	15 in	13.2 in	9.3 in	70 lbs

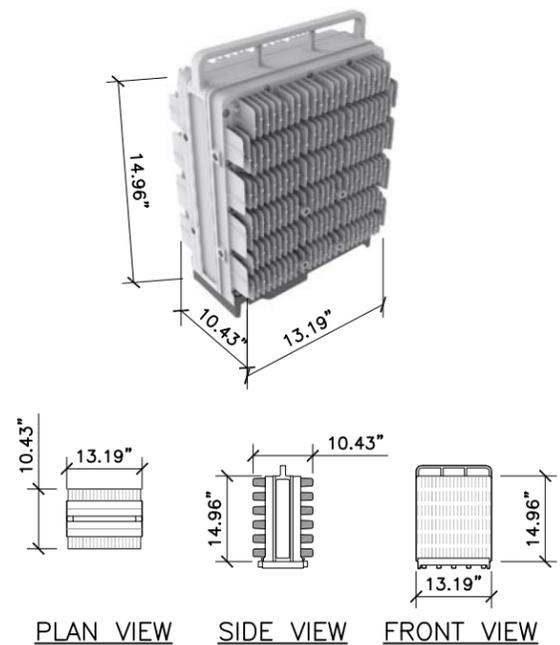
ERICSSON - RADIO 8843
SINGLE BAND B66A AND B2



ERICSSON - RRUS 4478 B14

FREQUENCY RANGE TX 758-768 MHz
RX 788-798 MHz

TOTAL WEIGHT 59.9 Lbs



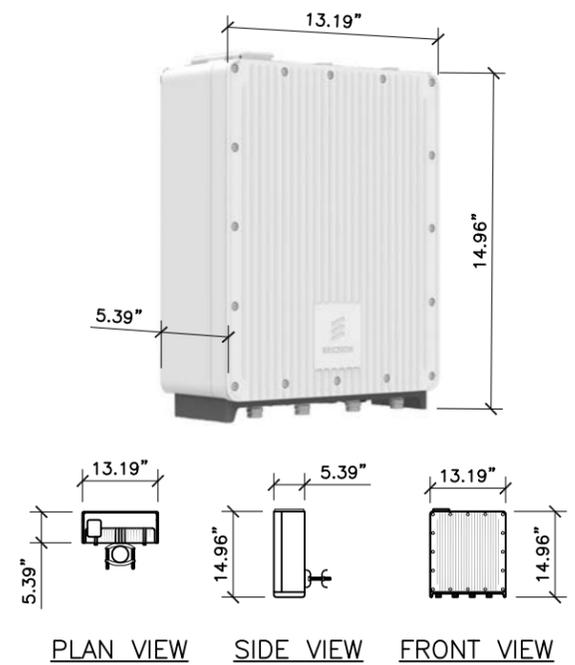
PLAN VIEW SIDE VIEW FRONT VIEW

ERICSSON RADIO 4449 DUAL B5 & B12

AISG TMA & RET SUPPORT
4TX/4RX PER BAND (B5 & B12)

WEIGHT ~73 Lbs

RRU SPEC SCALE: N.T.S. 7



PLAN VIEW SIDE VIEW FRONT VIEW

ERICSSON - RRUS 4415 B30

FREQUENCY RANGE TX = 2350-2360 MHz
RX = 2305-2315 MHz

TOTAL WEIGHT 46.0 Lbs

RRUS SPEC SCALE: N.T.S. 9

SITE NUMBER
CT3470A

SITE NAME
MIDDLETOWN_MILE LANE

FA NUMBER:
10578361

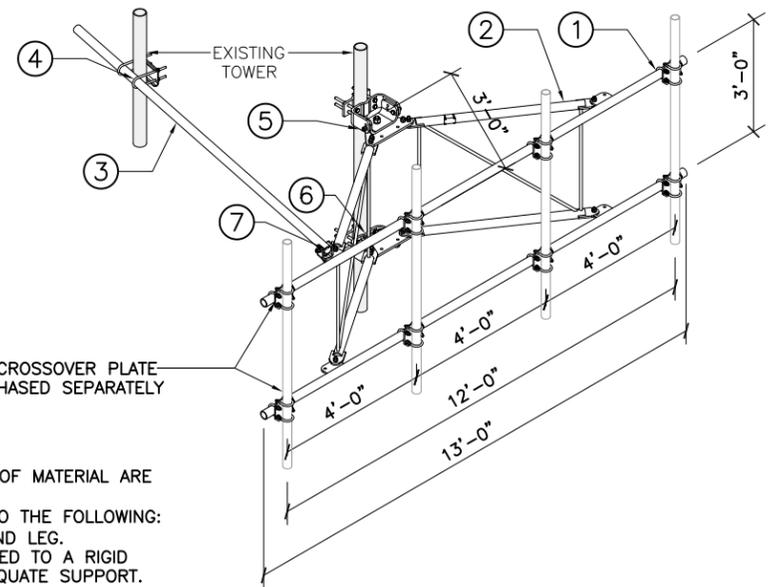
USID:
221794

SITE ADDRESS
**499 MILE LANE
MIDDLETOWN, CT 06457**

SHEET NAME
SITE DETAILS

SHEET NUMBER
C-4

RRU SPEC SCALE: N.T.S. 6



MOUNTING PIPES & CROSSOVER PLATE KITS MUST BE PURCHASED SEPARATELY

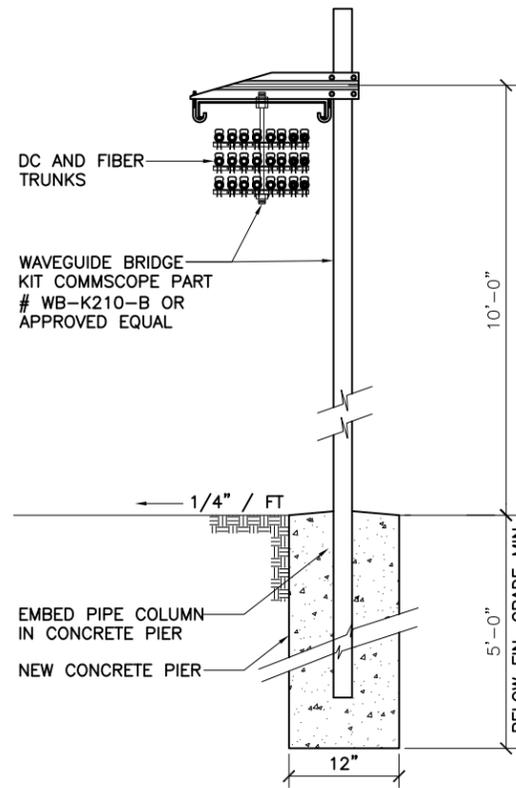
- NOTES:**
1. QUANTITIES SHOWN IN LISTS OF MATERIAL ARE FOR ONE (1) V-BOOM ONLY.
 2. THIS V-BOOM WILL MOUNT TO THE FOLLOWING: 1-1/2" TO 5-9/16" ROUND LEG.
 3. TIE BACK MUST BE CONNECTED TO A RIGID MEMBER THAT PROVIDES ADEQUATE SUPPORT.

ITEM	QTY	DESCRIPTION
1	2	WELDMENT, FACE PIPE
2	2	WELDMENT, STANDOFF ARM
3	1/2	PIPE, TIE BACK (DEPENDENT ON NEEDED SUPPORT)
4	1/2	TIE BACK CLAMP (ONE PER OF TIE BACK ARM)
5	1	UPPER LEG MOUNT
6	1	LOWER LEG MOUNT
7	1	TIE BACK SWIVEL

12' HD V-BOOM ASSEMBLY W/TIEBACK (3' STANDOFF) WITHOUT ANTENNA MOUNTING PIPES
MFR - SABRE
PART# - C10857001C
WEIGHT - 462 LBS

ANTENNA SECTOR FRAME SPEC

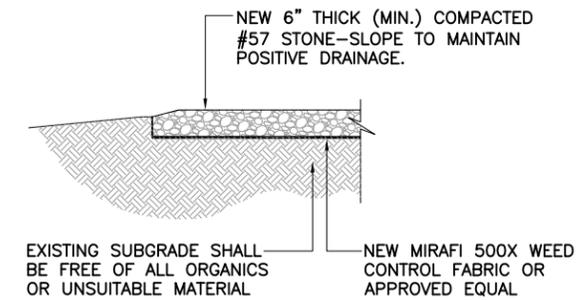
SCALE: N.T.S. 1



DC AND FIBER TRUNKS
WAVEGUIDE BRIDGE KIT COMMSCOPE PART # WB-K210-B OR APPROVED EQUAL
NEW CONCRETE PIER
12"
5'-0" BELOW FIN. GRADE MIN.
1/4" / FT

ICE BRIDGE DETAIL

SCALE: N.T.S. 2

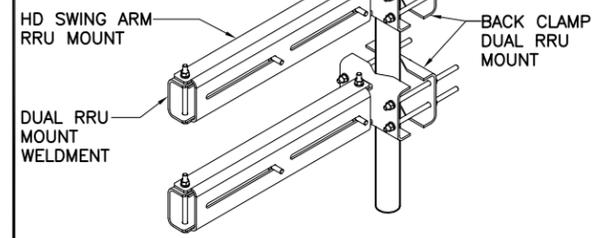


NEW 6" THICK (MIN.) COMPACTED #57 STONE-SLOPE TO MAINTAIN POSITIVE DRAINAGE.
EXISTING SUBGRADE SHALL BE FREE OF ALL ORGANICS OR UNSUITABLE MATERIAL
NEW MIRAFI 500X WEED CONTROL FABRIC OR APPROVED EQUAL
NOTE:
WEED CONTROL FABRIC SHALL BE USED UNDER ENTIRE NEW GRAVELED AREA. CONTRACTOR SHALL INSTALL FABRIC PER MANUFACTURER'S RECOMMENDATIONS.

YARD DETAIL

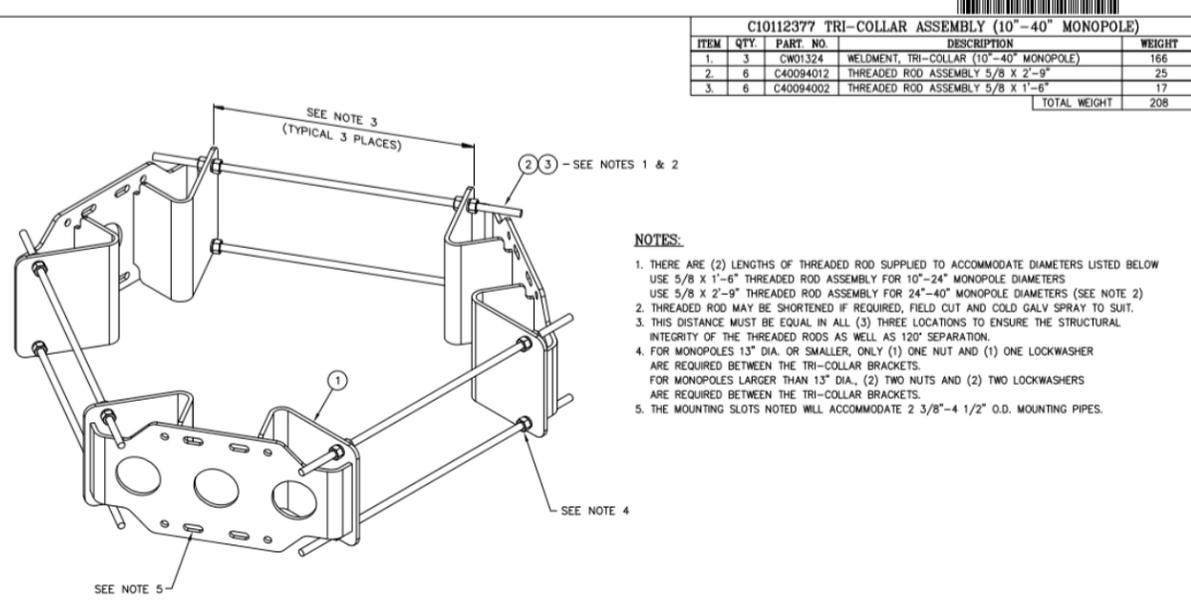
SCALE: N.T.S. 3

NOTE:
ALL MOUNTING HARDWARE AND BRACKETS ARE INCLUDED IN COMMSCOPE MOUNTING KIT PART #MTC3326DHD OR APPROVED EQUAL



RRH MOUNT DETAIL

SCALE: N.T.S. 4



ITEM	QTY.	PART. NO.	DESCRIPTION	WEIGHT
1.	3	CW01324	WELDMENT, TRI-COLLAR (10'-40" MONOPOLE)	166
2.	6	C40094012	THREADED ROD ASSEMBLY 5/8 X 2'-9"	25
3.	6	C40094002	THREADED ROD ASSEMBLY 5/8 X 1'-6"	17
TOTAL WEIGHT				208

- NOTES:**
1. THERE ARE (2) LENGTHS OF THREADED ROD SUPPLIED TO ACCOMMODATE DIAMETERS LISTED BELOW USE 5/8 X 1'-6" THREADED ROD ASSEMBLY FOR 10'-24" MONOPOLE DIAMETERS USE 5/8 X 2'-9" THREADED ROD ASSEMBLY FOR 24'-40" MONOPOLE DIAMETERS (SEE NOTE 2)
 2. THREADED ROD MAY BE SHORTENED IF REQUIRED, FIELD CUT AND COLD GALV SPRAY TO SUIT.
 3. THIS DISTANCE MUST BE EQUAL IN ALL (3) THREE LOCATIONS TO ENSURE THE STRUCTURAL INTEGRITY OF THE THREADED RODS AS WELL AS 120" SEPARATION.
 4. FOR MONOPOLES 13" DIA. OR SMALLER, ONLY (1) ONE NUT AND (1) ONE LOCKWASHER ARE REQUIRED BETWEEN THE TRI-COLLAR BRACKETS. FOR MONOPOLES LARGER THAN 13" DIA., (2) TWO NUTS AND (2) TWO LOCKWASHERS ARE REQUIRED BETWEEN THE TRI-COLLAR BRACKETS.
 5. THE MOUNTING SLOTS NOTED WILL ACCOMMODATE 2 3/8"-4 1/2" O.D. MOUNTING PIPES.

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS INCLUDE FINISHES AND ARE IN INCHES
TOLERANCES: FRACTIONS ± 1/16" ANGLES ± 1/2 DEG DECIMALS ± .015"

MATERIAL: TOLERANCES DO NOT APPLY TO RAW MATERIAL

Sabre Industries
Towers and Poles

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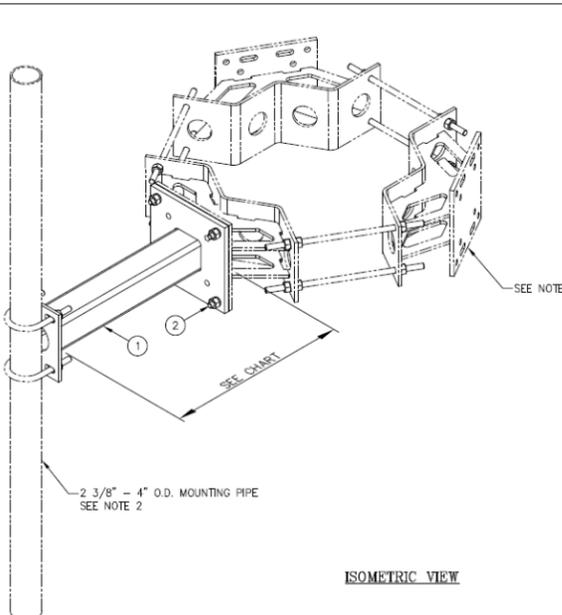
TRI-COLLAR BRACKET ASSEMBLY FOR MONOPOLES (10'-40" DIA.) (CIRCUMFERENCE 31.4" TO 125.7")

DATE: 04/15/16
DRAWN BY: WRF
CHECKED BY: KLE

SIZE: B
DRAWING NO.: C10112377
SCALE: None
PAGE: 1 OF 1

TRI-COLLAR BRACKET SPECS

SCALE: N.T.S. 5



ITEM	KIT NO.	DWG. NO.	QTY.	DESCRIPTION	WEIGHT
1	C10114001	CW00484	1	1'-0" STANDOFF ARM WELDMENT	38.0#

ITEM	PART NO.	QTY.	DESCRIPTION	WEIGHT
2	C40026025	4	BOLT ASSEMBLY, 5/8" X 2 1/2" A325	2.0#

- NOTES:**
1. TRI-COLLAR MOUNTS ARE SHOWN TYPICAL AND MUST BE PURCHASED SEPARATELY.
 2. 3/8" TO 4" O.D. MOUNTING PIPE & U-BOLTS MUST BE PURCHASED SEPARATELY.
 3. QUANTITIES SHOWN ARE FOR ONE (1) STANDOFF ARM.

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS INCLUDE FINISHES AND ARE IN INCHES
TOLERANCES: FRACTIONS ± 1/16" ANGLES ± 1/2 DEG DECIMALS ± .015"

MATERIAL: TOLERANCES DO NOT APPLY TO RAW MATERIAL

Sabre Industries
Towers and Poles

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STANDOFF ARM (FITS 2 3/8" TO 4" O.D. MOUNTING PIPE)

DATE: 8/26/00
DRAWN BY: KLE
CHECKED BY: BCT

SIZE: B
DRAWING NO.: C10114
SCALE: None
PAGE: 1 OF 1

STAND-OFF ARM SPECS

SCALE: N.T.S. 6

at&t
7150 STANDARD DRIVE
HANOVER, MD 21076

smartlink
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HANOVER, MD 21076

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SCHAUMBURG, ILLINOIS 60173
TEL: 847-908-8400
COA# PEC.0001444
www.FullertonEngineering.com

REV	DATE	DESCRIPTION	BY
0	03/02/20	90% REVIEW	KC
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2	06/09/20	FOR PERMIT	KC
3	07/14/20	FOR PERMIT	KC

SITE NUMBER
CT3470A

SITE NAME
MIDDLETOWN_MILE LANE

FA NUMBER:
10578361

USID:
221794

SITE ADDRESS
**499 MILE LANE
MIDDLETOWN, CT 06457**

SHEET NAME
SITE DETAILS

SHEET NUMBER
C-4A



7150 STANDARD DRIVE
HANOVER, MD 21076

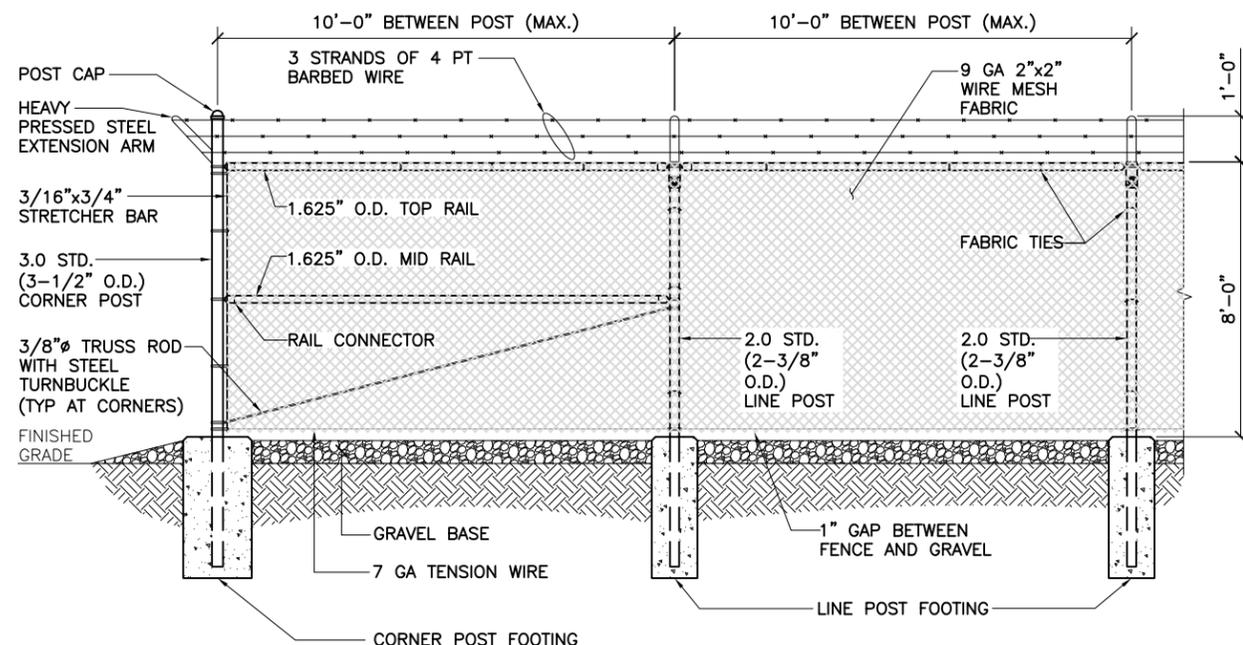


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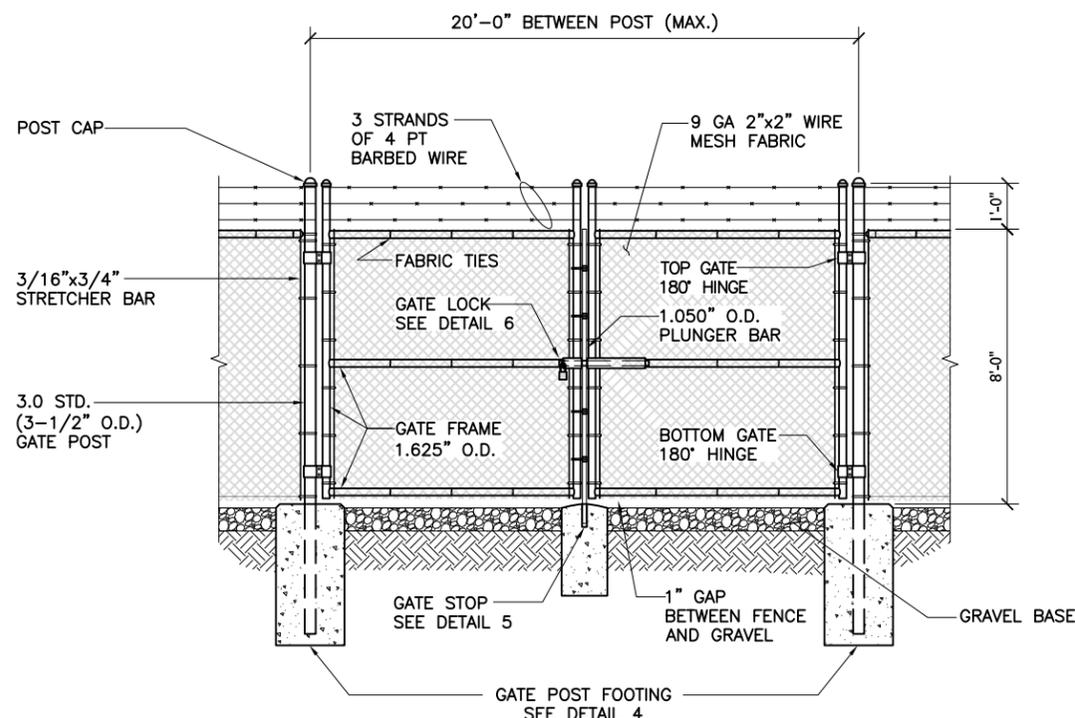
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2	06/09/20	FOR PERMIT	KC
3	07/14/20	FOR PERMIT	KC



FENCING ELEVATION

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

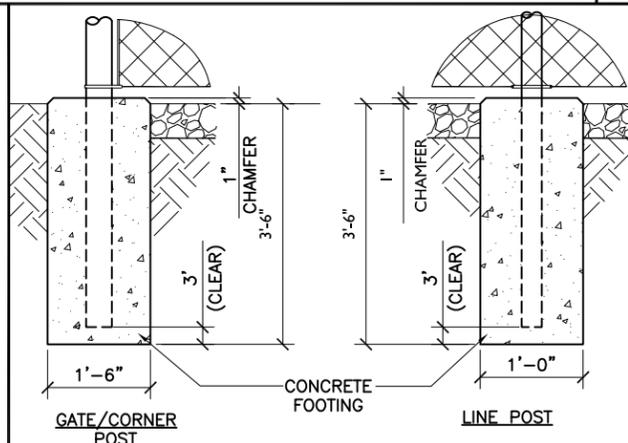
1



DOUBLE SWING GATE DETAIL

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

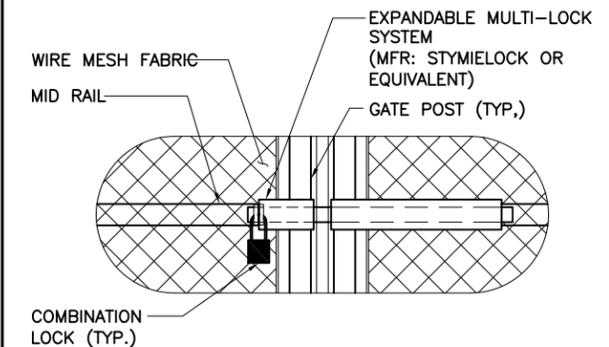
2



POST FOOTING DETAIL

SCALE: N.T.S.

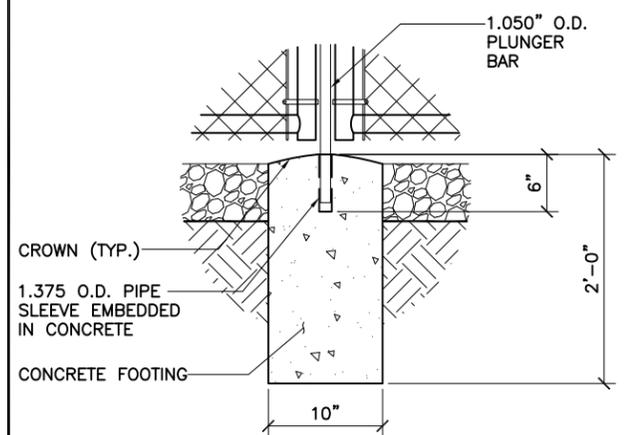
4



GATE LOCK DETAIL

SCALE: N.T.S.

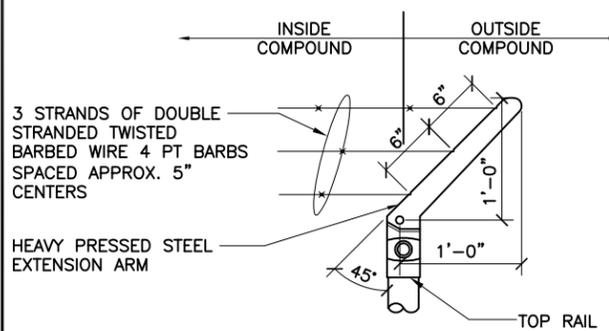
6



GATE STOP DETAIL

SCALE: N.T.S.

5



EXTENSION ARM DETAIL

SCALE: N.T.S.

7

- ALL POSTS AND RAILS SHALL BE SCHEDULE 40 PIPE AND SHALL MEET THE REQUIREMENTS OF ASTM-F1083
- WIRE MESH FABRIC SHALL MEET THE REQUIREMENTS OF ASTM-392
- ALL FENCE MATERIALS SHALL BE HOT DIP GALVANIZED. ANY DAMAGED FENCE COMPONENTS SHALL BE REPAIRED WITH COLD GALVANIZING SPRAY
- ALL POST MUST BE PLUMB AND ALIGNED WITH ONE ANOTHER IN BOTH HORIZONTAL AND VERTICAL PLANES
- CORNERS AND GATE POST SHALL EXTEND ABOVE THE TOP STRAND OF BARBED WIRE TO PROVIDE TENSIONING FOR THE BARBED WIRE
- PROVIDE MIDRAILS AND BRACING AT ALL CORNER POSTS WHERE THE FENCE CHANGES DIRECTION BY MORE THAN 30 DEGREES
- ALL CONCRETE FOOTINGS SHALL BE MINIMUM 2500 PSI AT 28 DAYS

NOTES

SCALE: N.T.S.

8

NOT USED

SCALE: N.T.S.

3

SITE NUMBER

CT3470A

SITE NAME

MIDDLETOWN_MILE LANE

FA NUMBER:

10578361

USID:

221794

SITE ADDRESS

499 MILE LANE
MIDDLETOWN, CT 06457

SHEET NAME

FENCE DETAILS

SHEET NUMBER

C-4B

VERTIV
 1050 DEARBORN DR.
 COLUMBUS, OH 43085
 Voice: (614) 888-0246
 www.vertivco.com

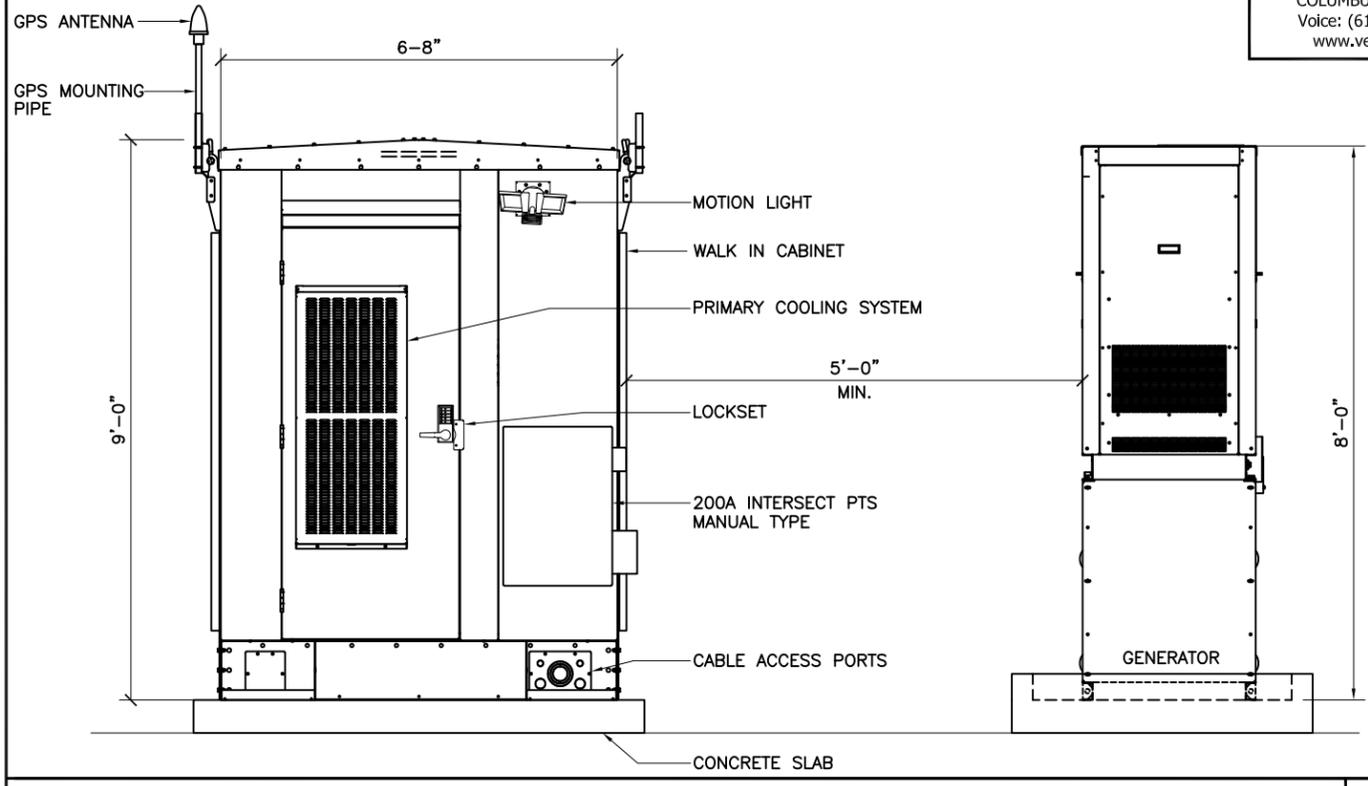
SEE MANUFACTURER'S DRAWING FOR FULL EQUIPMENT SHELTER SPECIFICATION AND DETAILS. THIS SHEET PROVIDED FOR REFERENCE ONLY.

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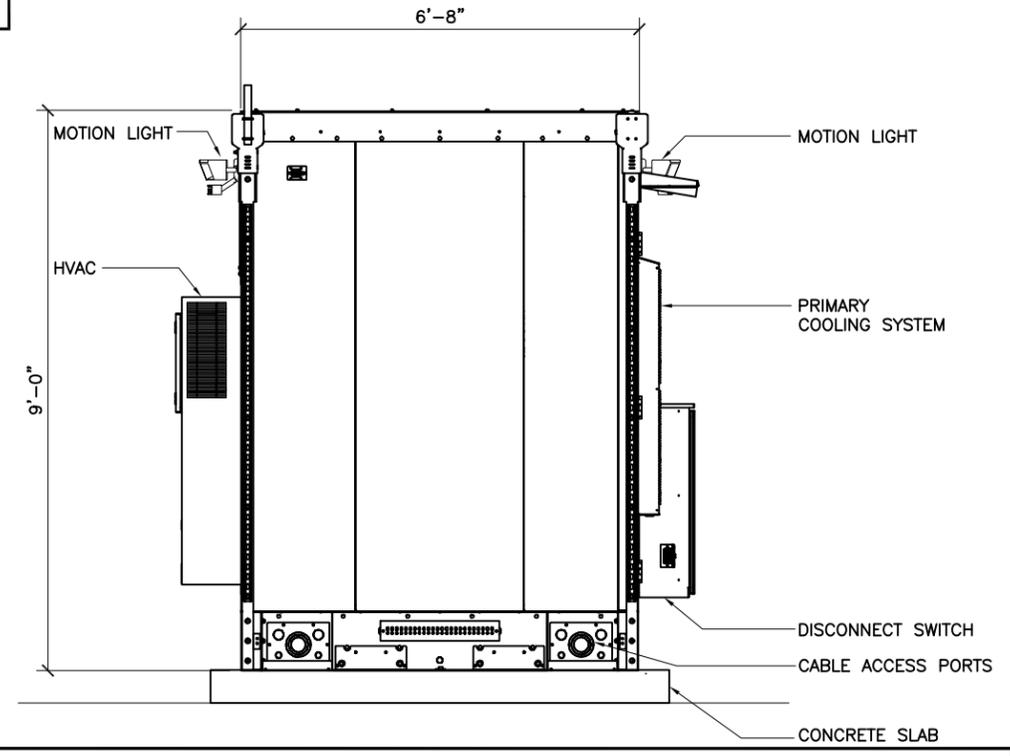
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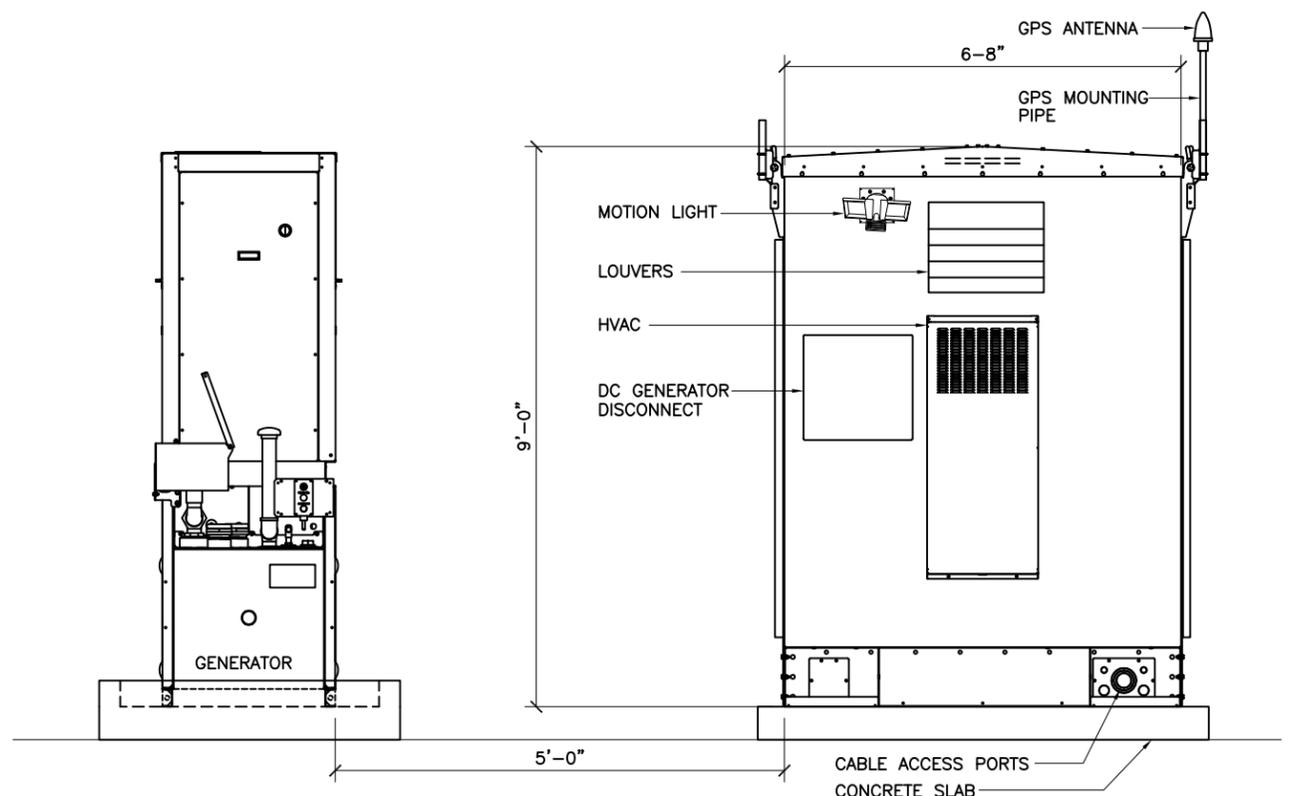
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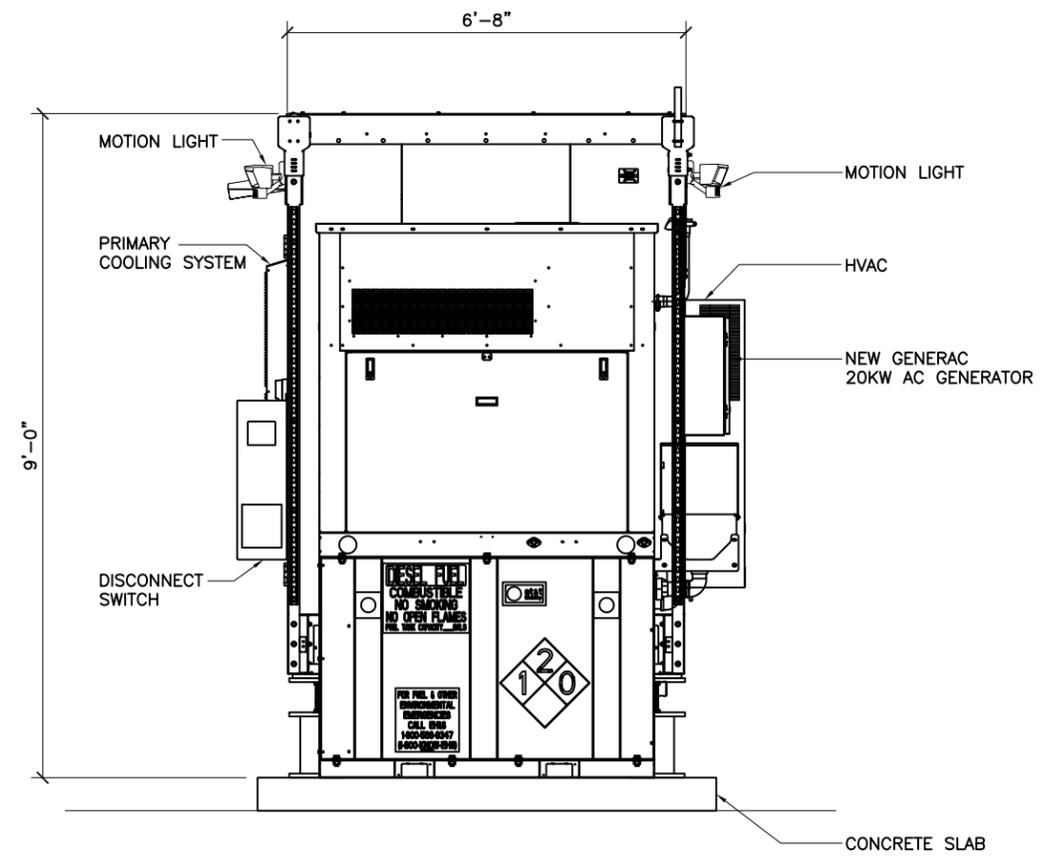
ELEVATION A SCALE: 3/8" = 1'-0" 1



ELEVATION B SCALE: 3/8" = 1'-0" 2



ELEVATION C SCALE: 3/8" = 1'-0" 3



ELEVATION D SCALE: 3/8" = 1'-0" 4

SITE NUMBER
CT3470A

SITE NAME
MIDDLETOWN_MILE LANE

FA NUMBER:
10578361

USID:
221794

SITE ADDRESS
**499 MILE LANE
 MIDDLETOWN, CT 06457**

SHEET NAME
WIC SHELTER ELEVATION

SHEET NUMBER

C-5

APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General	
Make	Mitsubishi
EPA Emissions Compliance	Interim Tier 4
Cylinder #	4
Type	In-Line
Displacement - L (Cu In)	2.5 (158)
Bore - mm (in)	88 (3.5)
Stroke - mm (in)	103 (4.1)
Compression Ratio	22:1
Intake Air Method	Naturally Aspirated

Engine Governing	
Governor	Electronic Isochronous
Frequency Regulation (Steady State)	± 0.25%

Lubrication System	
Oil Pump Type	Trochoid Gear Pump
Oil Filter Type	Filtering Paper, Full Flow
Crankcase Capacity - L (qts)	6.5 (6.9)

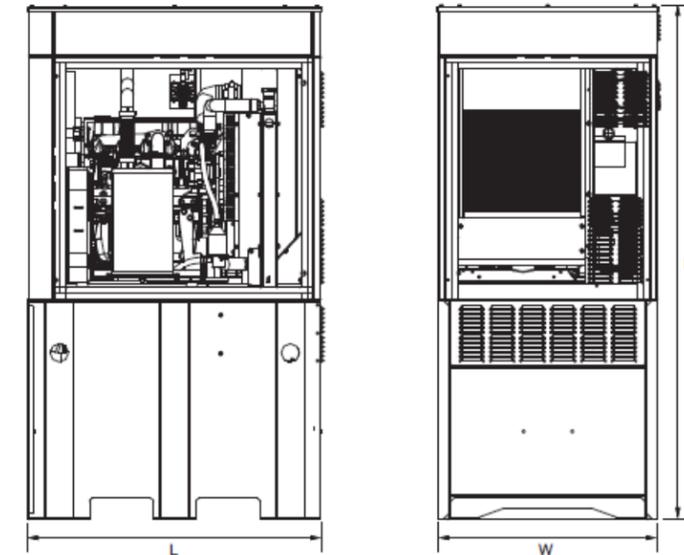
ALTERNATOR SPECIFICATIONS	
Standard Model	Mecc Alte EGP 28-2L/4
Poles	4
Field Type	Revolving
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	<5%
Telephone Interference Factor (TIF)	<45
Standard Excitation	Brushless

Cooling System	
Cooling System Type	Forced Circulation
Water Pump Type	Centrifugal Pump
Fan Type	Pusher
Fan Speed (rpm)	2100
Fan Diameter - mm (in)	431.8 (17)
Coolant Heater Wattage	1000
Coolant Heater Voltage	120

Fuel System	
Fuel Type	Ultra Low Sulfur Diesel #2
Fuel Specifications	ASTM
Fuel Filtering (microns)	6
Fuel Inject Pump Make	Bosch
Injector Type	Engine Driven Gear
Engine Type	Diesel
Fuel Supply Line - mm (in.)	6.6 (0.26)

Engine Electrical System	
System Voltage	12 VDC
Battery Charger Alternator	12V-50A
Battery Size	650 CCA
Battery Group	35
Battery Voltage	12 VDC
Ground Polarity	Negative

Bearings	Dual Sealed
Coupling	Belt, Pulley
Load Capacity - Standby	100%
Prototype Short Circuit Test	Yes
Voltage Regulator Type	Digital
Number of Sensed Phases	All
Regulation Accuracy (Steady State)	± 0.5%



Level 2 Sound Attenuation Enclosure	
Run Time Hours	48
Usable Capacity Gal (L)	92 (348.2)
L x W x H in (mm)	48 x 36 x 90 (1219.2 x 914.4 x 2286)
Weight lbs (kg)	2400 (1089)
Sound Level	71 dBA

OPERATING DATA

POWER RATINGS		
Single-Phase 120/240 VAC @1.0pf	20 kW	Amps: 83
Circuit Breaker Size	100A	

FUEL CONSUMPTION RATES*

Diesel - gph (lph)		
Percent Load	Standby	
25%	0.74 (2.80)	
50%	0.99 (3.75)	
75%	1.41 (5.30)	
100%	1.90 (7.19)	

* Fuel supply installation must accommodate fuel consumption rates at 100% load.

COOLING

Coolant Flow per Minute	gpm (lpm)	Standby 11.9 (45)
Coolant System Capacity	gal (L)	3.5 (13.2)
Heat Rejection to Coolant	BTU/hr	238,200
Inlet Air	cfm (m³/min)	2365 (67)
Max. Operating Ambient Temperature (Before Derate)	°F (°C)	77* (25*)
Maximum Radiator Backpressure	in H ₂ O	0.50

COMBUSTION AIR REQUIREMENTS

Standby	
Flow at Rated Power cfm (m³/min)	88 (2.49)

ENGINE

Standby		
Rated Engine Speed	rpm	1800
Horsepower at Rated kW**	hp	33.5
Piston Speed	ft/min	1220.47
BMEP	psi	96.5

EXHAUST

Standby		
Exhaust Flow (Rated Output)	cfm (m³/min)	193 (328)
Max. Backpressure (Post Silencer)	inHg (kPa)	1.36 (4.67)
Exhaust Temp (Rated Output - Post Silencer)	°F (°C)	928 (497.7)

GENERAC
SDC20 2.5L 20 kW - AC
MODEL # G007098-0

7150 STANDARD DRIVE
HANOVER, MD 21076

1362 MELLON ROAD, SUITE 140
HANOVER, MD 21076

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REV	DATE	DESCRIPTION	BY
0	03/02/20	90% REVIEW	KC
1	03/18/20	FOR PERMIT	RO
2	06/09/20	FOR PERMIT	KC
3	07/14/20	FOR PERMIT	KC

SITE NUMBER
CT3470A

SITE NAME
MIDDLETOWN_MILE LANE

FA NUMBER:
10578361

USID:
221794

SITE ADDRESS
**499 MILE LANE
MIDDLETOWN, CT 06457**

SHEET NAME
GENERATOR

SHEET NUMBER
C-6

RF DESIGN NOTE:
 THIS ANTENNA AND COAX CABLE SCHEDULE HAS BEEN CREATED USING THE FOLLOWING RFDS DATED: 06/17/20 V5.0
 ALL ANTENNA DESIGN, ZONING, STRUCTURAL ANALYSIS PERMITS AND COMPLIANCE SUBMISSIONS ARE COORDINATED WITH THE AFOREMENTIONED DOCUMENT



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SECTOR	ANTENNA NUMBER	ANTENNA STATUS & TYPE	ANTENNA MODEL NUMBER	ANTENNA VENDOR	ANTENNA SIZE (HxWxD)	ANTENNA WEIGHT (LBS.)	RRU MODEL NUMBER AT GROUND	ANTENNA PORTS	TECH.	AZIMUTH	MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT	ANTENNA C FROM GROUND	ANTENNA TIP HEIGHT	CABLE FEEDER	
															TYPE	LENGTH
A	A-1	NEW LTE ANTENNA	TPA65R-BU8DA-K	CCI	96"x21"x7.8"	87 LBS.	(1) NEW RRUS-4478 B14	1/5	700/AWS	20°	0°	2'/2'	150'-0"	154'-0"	(2) DC POWER CABLES	185'-0"
	A-2	NEW LTE ANTENNA	HPA65R-BU8A	CCI	96"x11.7"x7.6"	57.3 LBS.	(1) NEW RRUS-4415 B30	5	WCS	20°	0°	3'	150'-0"	154'-0"	(1) FIBER CABLE	185'-0"
	A-3	NEW LTE ANTENNA	DMP65R-BU8DA-K	CCI	96"x20"x7.7"	95 LBS.	(1) NEW RRUS-4449 B5/B12 (1) NEW RRUS-8843 B2/B66A	1/3 9	700/ 5G 850 1900	20°	0°	2'/2'/2'	150'-0"	154'-0"	SEE A-1 & A-2 ANTENNA DETAILS	
	A-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B	B-1	NEW LTE ANTENNA	TPA65R-BU8DA-K	CCI	96"x21"x7.8"	87 LBS.	(1) NEW RRUS-4478 B14	1/5	700/AWS	125°	0°	2'/2'	150'-0"	154'-0"	(2) DC POWER CABLES	185'-0"
	B-2	NEW LTE ANTENNA	HPA65R-BU8A	CCI	96"x11.7"x7.6"	57.3 LBS.	(1) NEW RRUS-4415 B30	5	WCS	125°	0°	3'	150'-0"	154'-0"	SEE C-2 ANTENNA DETAIL	
	B-3	NEW LTE ANTENNA	DMP65R-BU8DA-K	CCI	96"x20"x7.7"	95 LBS.	(1) NEW RRUS-4449 B5/B12 (1) NEW RRUS-8843 B2/B66A	1/3 9	700/ 5G 850 1900	125°	0°	2'/2'/2'	150'-0"	154'-0"	SEE C-1 & C-2 ANTENNA DETAILS	
	B-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
C	C-1	NEW LTE ANTENNA	TPA65R-BU8DA-K	CCI	96"x21"x7.8"	87 LBS.	(1) NEW RRUS-4478 B14	1/5	700/AWS	220°	0°	2'/2'	150'-0"	154'-0"	(2) DC POWER CABLES	185'-0"
	C-2	NEW LTE ANTENNA	HPA65R-BU8A	CCI	96"x11.7"x7.6"	57.3 LBS.	(1) NEW RRUS-4415 B30	5	WCS	220°	0°	3'	150'-0"	154'-0"	(1) FIBER CABLE	185'-0"
	C-3	NEW LTE ANTENNA	DMP65R-BU8DA-K	CCI	96"x20"x7.7"	95 LBS.	(1) NEW RRUS-4449 B5/B12 (1) NEW RRUS-8843 B2/B66A	1/3 9	700/ 5G 850 1900	220°	0°	2'/2'/2'	150'-0"	154'-0"	SEE C-1 & C-2 ANTENNA DETAILS	
	C-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

SITE NUMBER
CT3470A

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FA NUMBER:
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SITE ADDRESS
**499 MILE LANE
 MIDDLETOWN, CT 06457**

SHEET NAME
ANTENNA INFORMATION CHART

SHEET NUMBER
C-7



7150 STANDARD DRIVE
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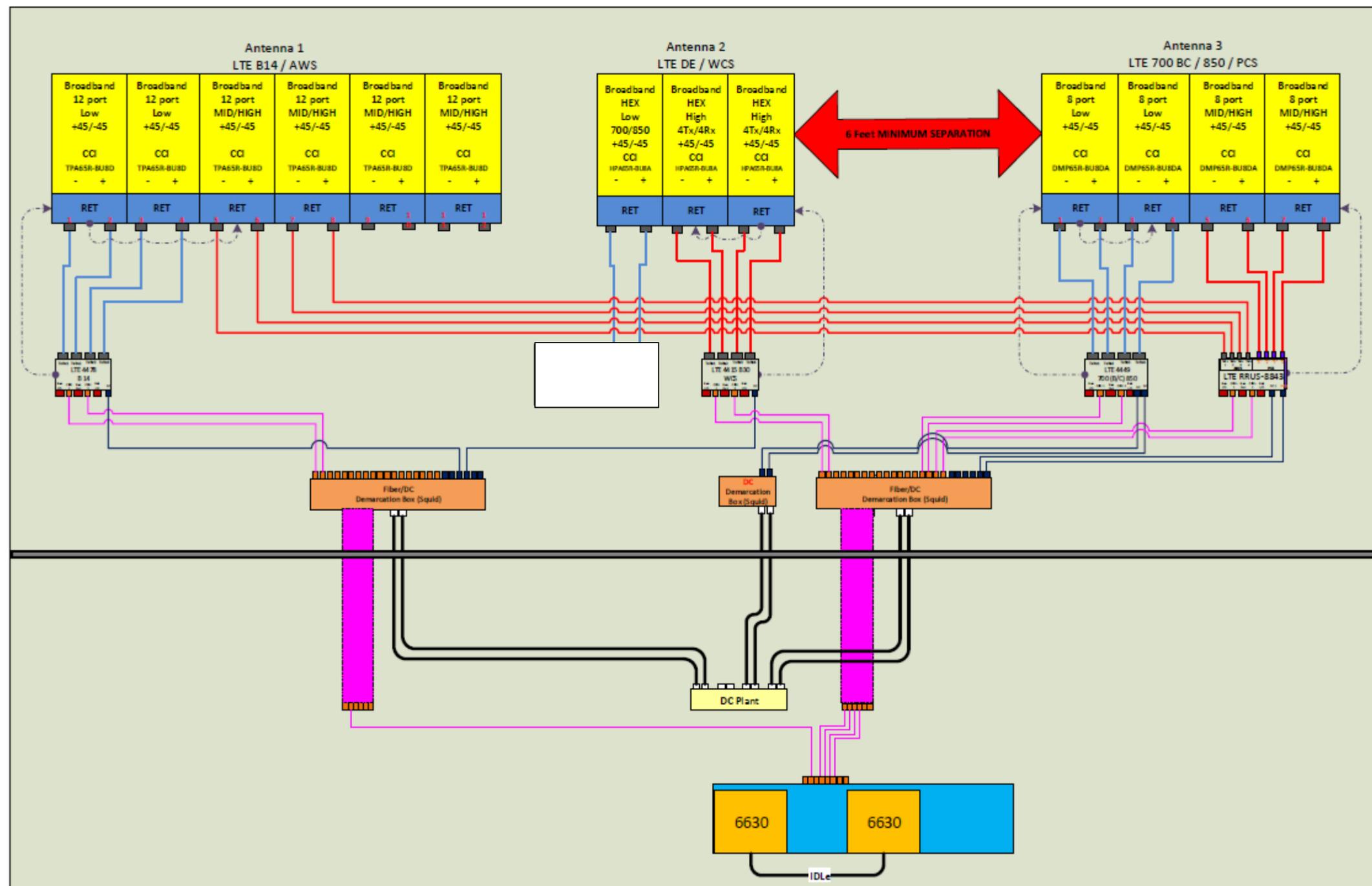


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SITE ADDRESS	499 MILE LANE MIDDLETOWN, CT 06457
SHEET NAME	RFDS
SHEET NUMBER	C-8

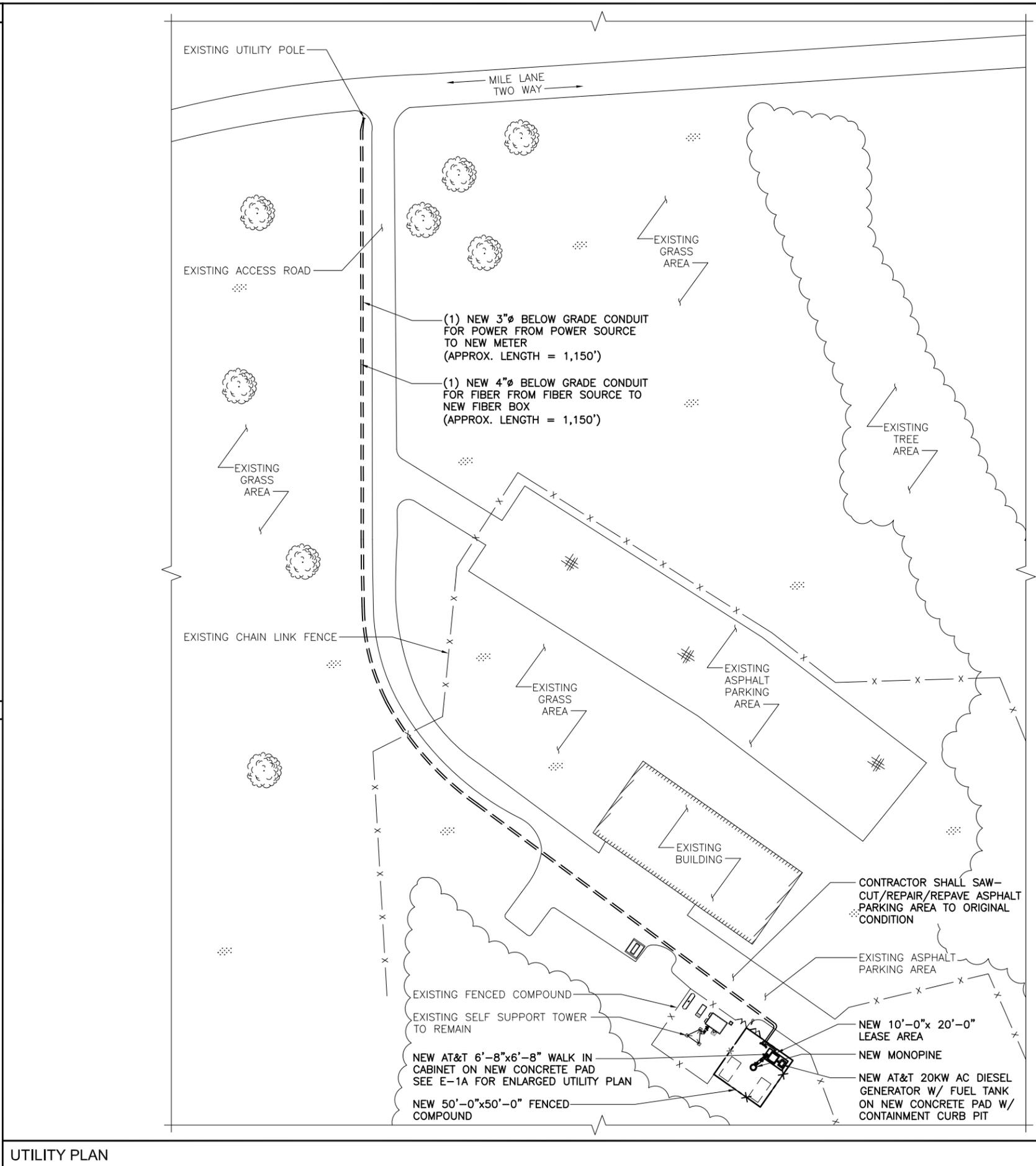
Diagram - Sector Diagram File Name - S3470 3ANT 8Cv2.vsd
 Atoll Site Name - CT3470 Location Name - MIDDLETOWN_MILE LANE Market - CONNECTICUT Market Cluster - NEW ENGLAND
 Comments: pls maintain 3' separation between antennas and minimum 6' separation between antenna 2 and 3 of each sector—Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna_Radio Connection Drawings Playbook v6.0_Eric***



*BASED ON RFDS V5.0, DATED (06/17/20)

ABBREVIATIONS	
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AGL	ABOVE GROUND LEVEL
AMSL	ABOVE MEAN SEA LEVEL
APPROX	APPROXIMATE
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
BBU	BASE BAND UNIT
CL	CENTERLINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CND	CONDUIT
CRAN	CENTRALIZED RAN
C-RAN	CLOUD RAN
DWG	DRAWING
FT	FOOT(FEET)
EGB	EQUIPMENT GROUND BAR
ELEC	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
ELEV	ELEVATION
EQUIP	EQUIPMENT
(E)	EXISTING
EXT	EXTERIOR
FND	FOUNDATION
F	FIBER
GA	GAUGE
GALV	GALVANIZED
GPS	GLOBAL POSITIONING SYSTEM
GND	GROUND
GSM	GLOBAL SYSTEM FOR MOBILE COMMUNICATION
LTE	LONG TERM EVOLUTION
MAX	MAXIMUM
MFR	MANUFACTURER
MGB	MASTER GROUND BAR
MIN	MINIMUM
MIMO	MULTIPLE IN MULTIPLE OUT
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
PPC	POWER PROTECTION CABINET
P	PROPERTY LINE
RAN	RADIO ACCESS NETWORK
RBS	RADIO BASED STATION
RRH	REMOTE RADIO HEAD
RGS	RIGID GALVANIZED STEEL
IN	INCH(ES)
INT	INTERIOR
LB(S), #	POUND(S)
SF	SQUARE FOOT
STL	STEEL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UMTS	UNIVERSAL MOBILE TELE-COMMUNICATION SYSTEM
VIF	VERIFY IN FIELD
W/	WITH
XFMR	TRANSFORMER

SYMBOLS	
	REVISION
	WORK POINT
	UTILITY POLE
	BRICK
	COMPRESSED STONE
	CONCRETE
	EARTH
	GRAVEL
	MASONRY
	STEEL
	CENTERLINE
	PROPERTY LINE
	LEASE LINE
	EASEMENT LINE
	FENCE
	CHAINLINK
	WOOD
	WROUGHT IRON
	ELECTRIC
	OVERHEAD
	UNDERGROUND
	FIBER
	OVERHEAD
	UNDERGROUND
	TELEPHONE
	OVERHEAD
	UNDERGROUND
	DCPOWER
	SECTION REFERENCE



NOTE:
FULLERTON ENGINEERING IS NOT RESPONSIBLE FOR UTILITY COORDINATION. EXACT FIBER AND POWER SOURCE SHALL BE REQUIRED PRIOR TO CONSTRUCTION

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FA NUMBER:	10578361
USID:	221794
SITE ADDRESS	499 MILE LANE MIDDLETOWN, CT 06457
SHEET NAME	UTILITY PLAN
SHEET NUMBER	E-1

SCALE: 1" = 100'-0" 1



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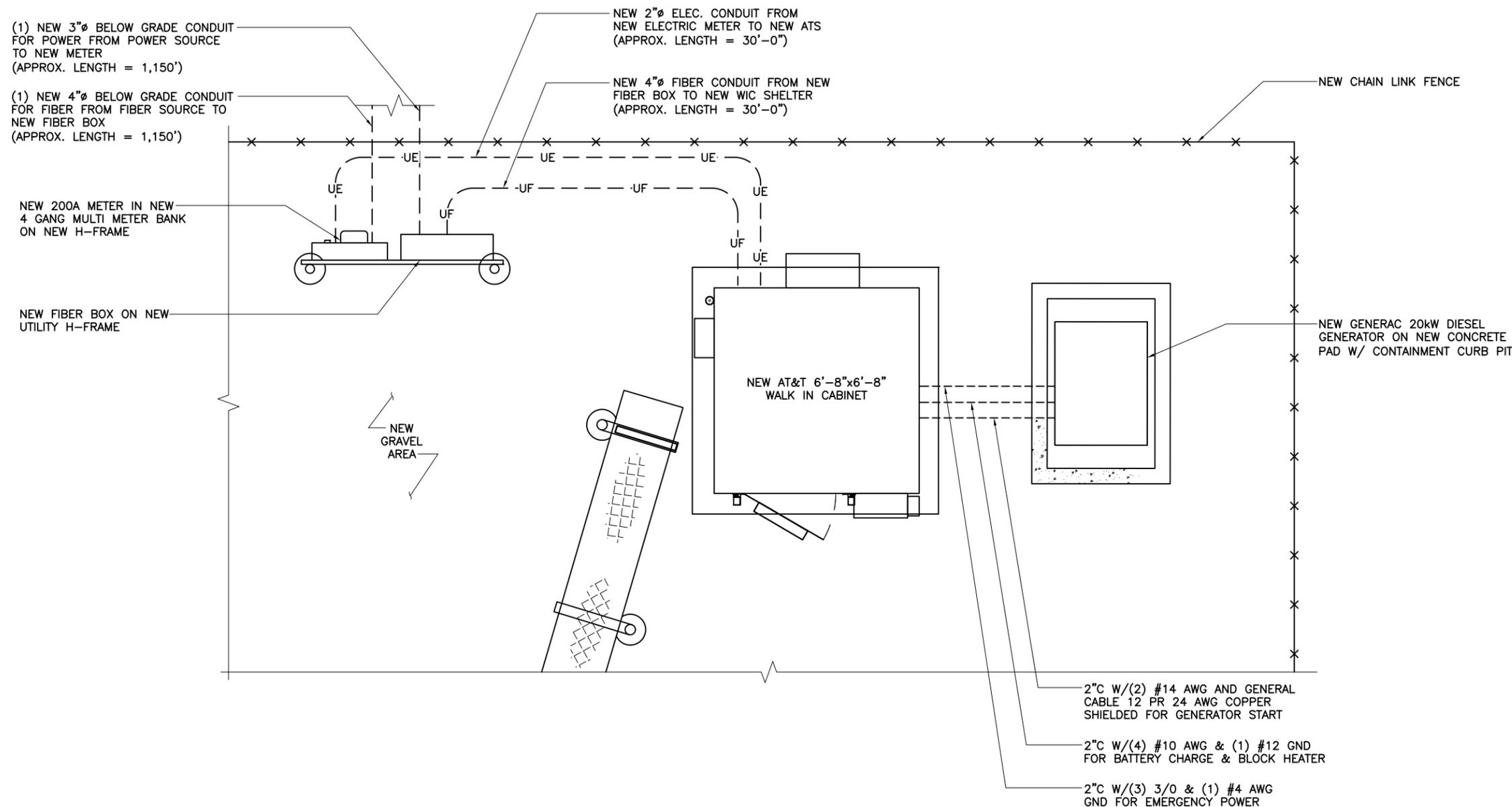
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SHEET NAME	ENLARGED UTILITY PLAN
SHEET NUMBER	E-1A

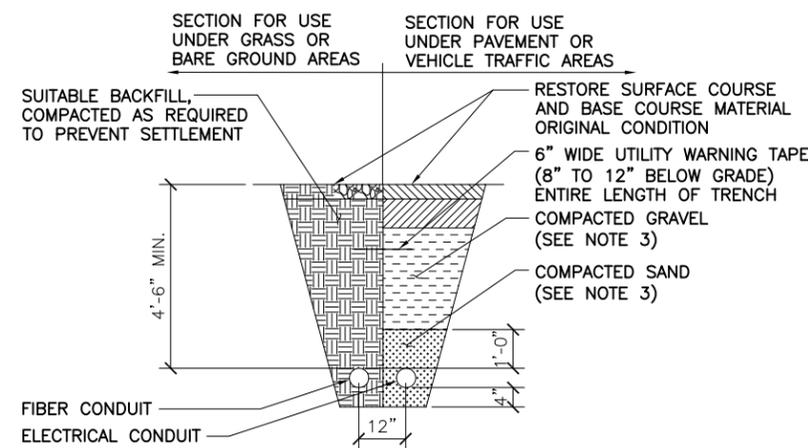


- ELECTRICAL INSTALLATION NOTES:**
- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS
 - CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.
 - WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIAL SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
 - ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC
 - CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
 - EACH END OF EVERY POWER, POWER PHASE CONDUCTOR (I.E. HOTS), GROUNDING, AND T1 CONDUCTOR AND 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 & OSHA.
 - ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH PLASTIC TAPE PER COLOR SCHEDULE. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E. PANELBOARD AND CIRCUIT ID'S). PER AT&T STANDARD.
 - PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS. PER AT&T STANDARD.
 - ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
 - POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90°C (WET AND DRY) OPERATION: LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
 - SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90°C (WET AND DRY) OPERATION: LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
 - POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90°C (WET AND DRY) OPERATION: WITH OUTER JACKET: LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
 - ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAT 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) OR RIGID NONMETALLIC CONDUIT (I.E. RIGID PVC SCHEDULE 40, OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
- RIGID NONMETALLIC CONDUIT (I.E. RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND: DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREA OF HEAVY VEHICLE TRAFFIC.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTING SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTING ARE NOT ACCEPTABLE.
- CABINETS, BOXES, AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
- WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD SHALL BE PANDUIT TYPE E (OR EQUAL) AND RATED NEMA 1 (OR BETTER).
- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS OR NEMA 3R (OR BETTER) OUTDOORS.
- 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 RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2: AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFE GUARD AGAINST LIFE AND PROPERTY.

NOTES

SCALE: N.T.S. 1

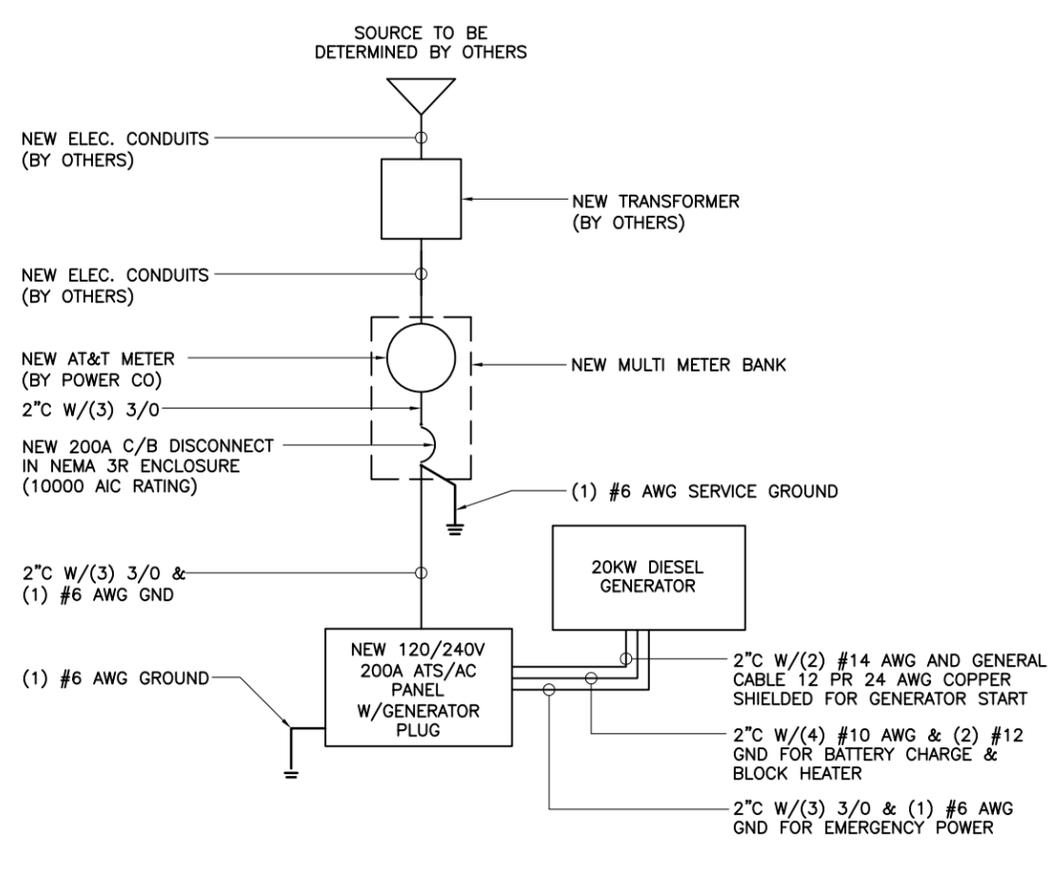


NOTES:

- CONTRACTOR TO VERIFY LOCAL UTILITY REQUIREMENTS FOR DEPTH, SIZE & SEPARATION OF CONDUITS PRIOR TO INSTALLATION. NOTIFY CONSTRUCTION MANAGER IMMEDIATELY OF ANY DISCREPANCIES.
- CONTRACTOR TO CALL 811, 48 HRS PRIOR TO EXCAVATING FOR UNDERGROUND UTILITY LOCATIONS. LOCATION SURROUNDING EXCAVATED AREA MUST BE PRIVATELY LOCATED FOR NON-PUBLIC UTILITIES.
- ALL SUITABLE FILL MATERIAL SHALL BE INSTALLED IN HORIZONTAL LAYERS NOT EXCEEDING A LOOSE DEPTH OF 9 INCHES AND SHALL BE COMPACTED TO NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY PER THE MODIFIED PROCTOR TEST, ASTM D1557.

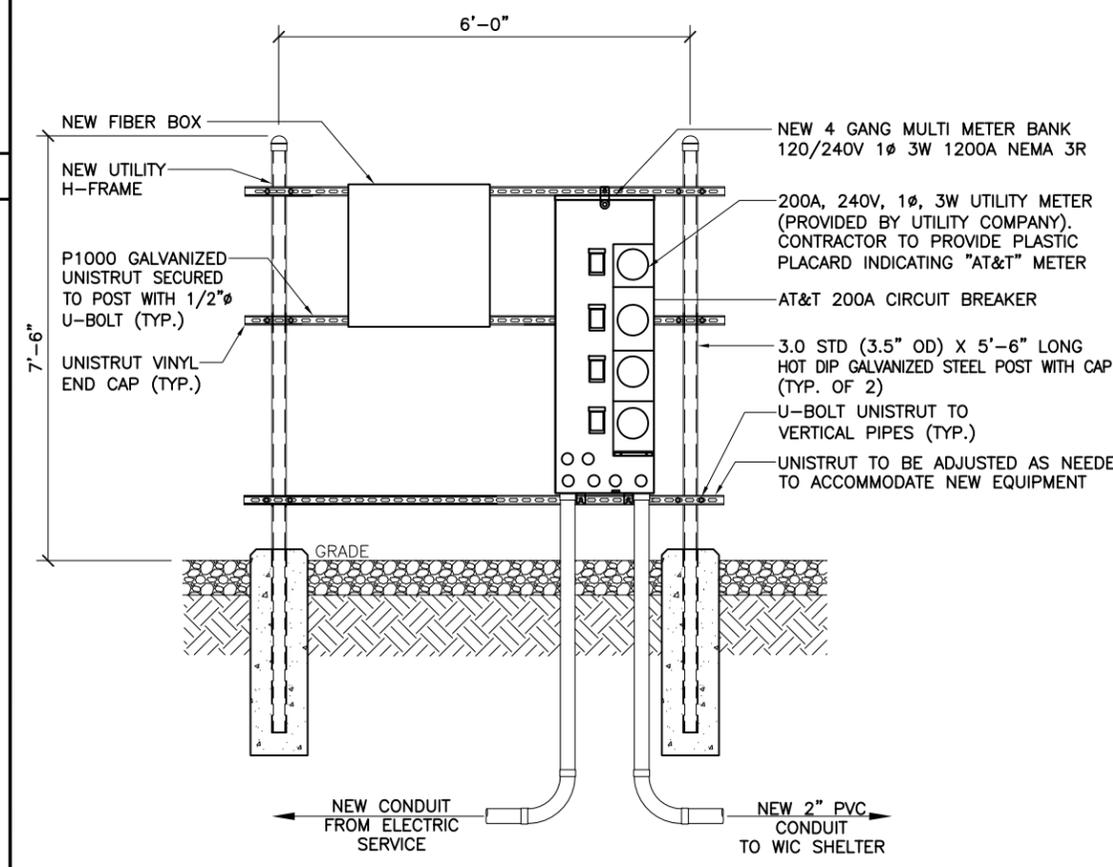
TRENCH DETAIL

SCALE: N.T.S. 3



ONE LINE DIAGRAM

SCALE: N.T.S. 2



H-FRAME DETAIL

SCALE: N.T.S. 4



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SHEET NAME
ELECTRICAL NOTES AND DETAILS

SHEET NUMBER

E-2



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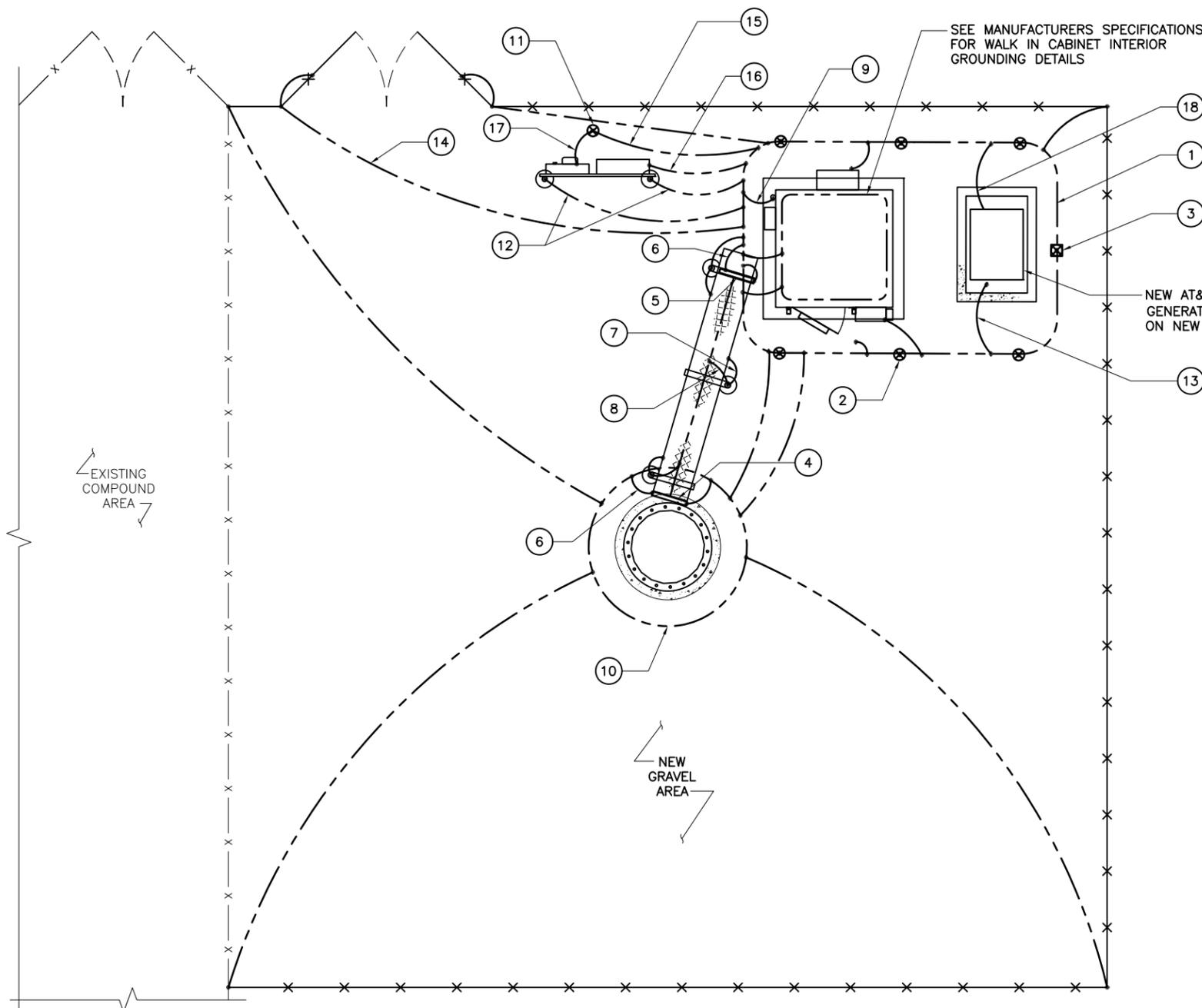
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SITE NAME	MIDDLETOWN_MILE LANE
FA NUMBER:	10578361
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SITE ADDRESS	499 MILE LANE MIDDLETOWN, CT 06457
SHEET NAME	GROUNDING PLAN
SHEET NUMBER	G-1

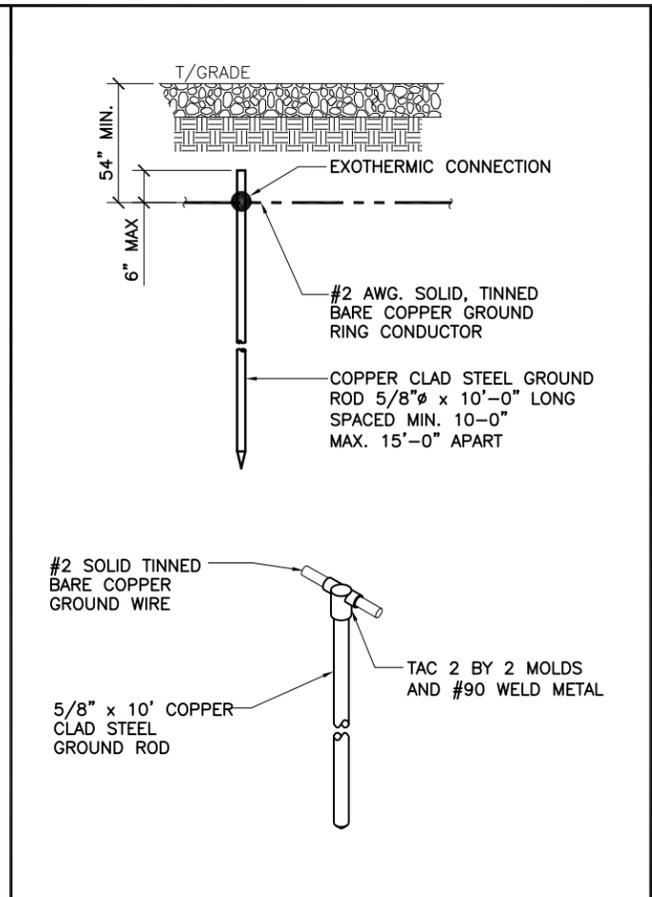
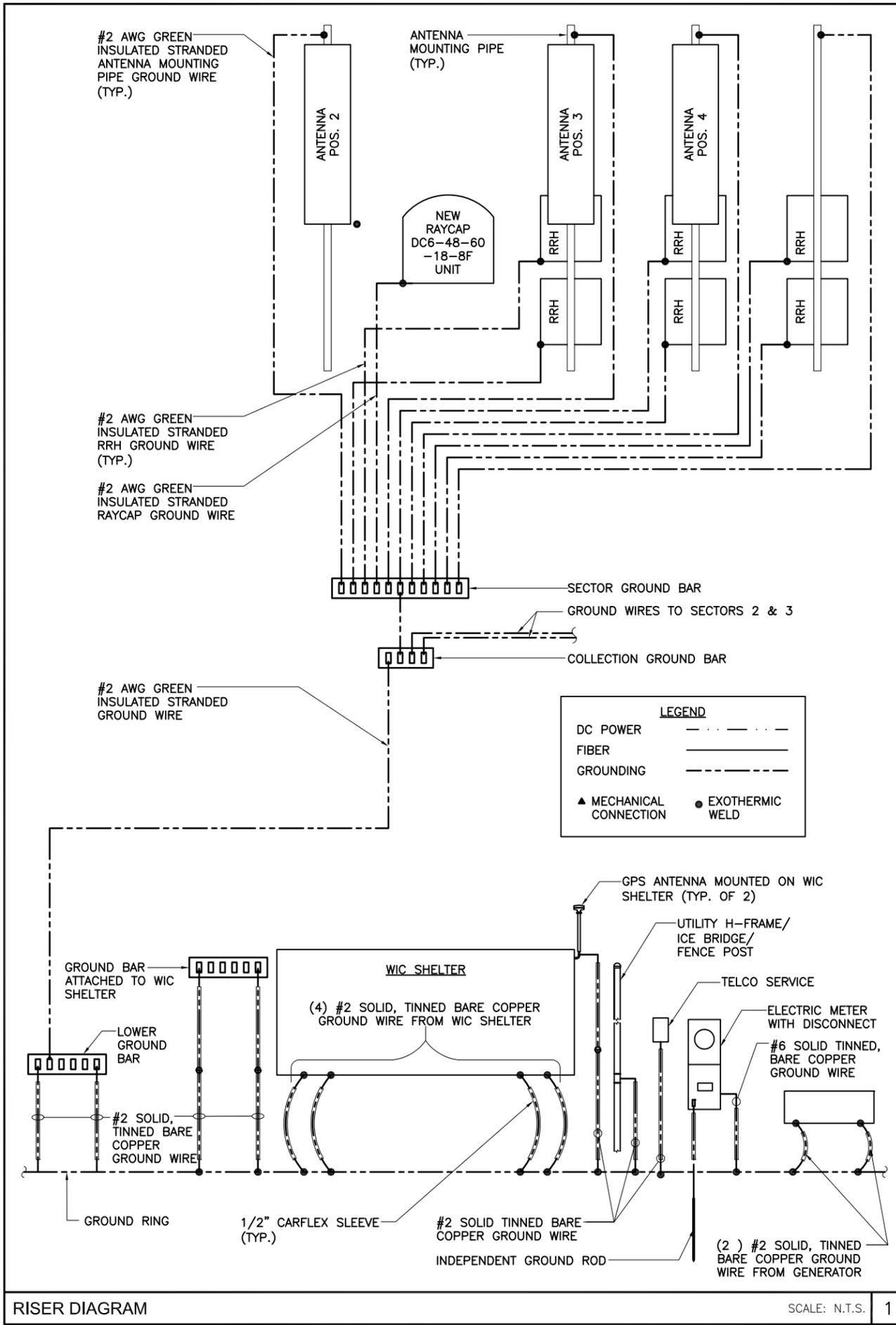
LEGEND

	GROUND BAR		5/8" x 10'-0" GROUND ROD
	EXISTING GROUND RING		GROUND SYSTEM TEST WELL
	NEW GROUND RING		MECHANICAL CONNECTION
			EXOTHERMIC WELD OR APPROVED CONNECTION

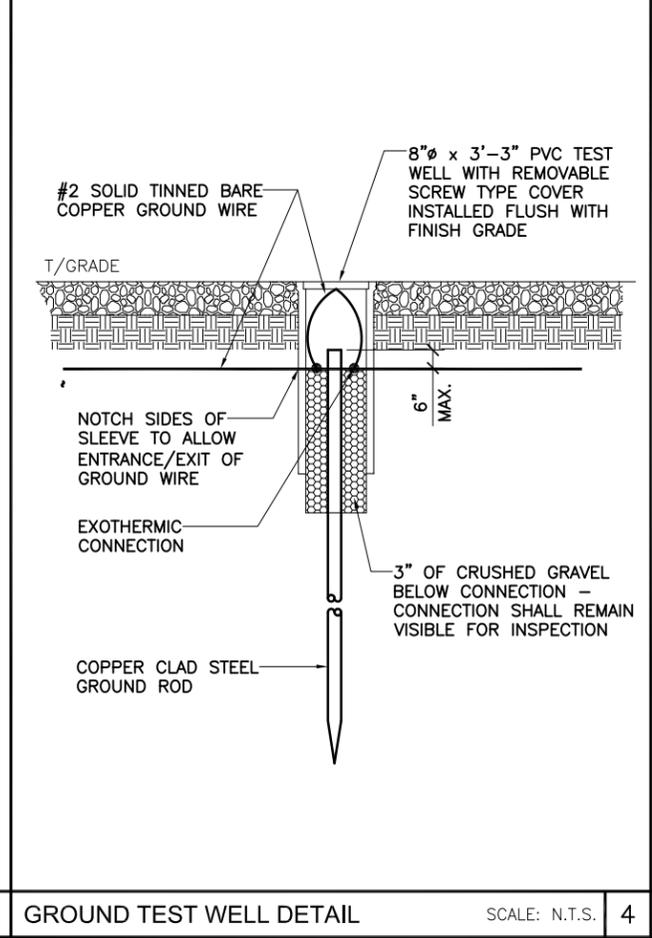
KEY NOTES

- GROUND RING, #2 SOLID, TINNED BARE COPPER WIRE. CONSTRUCT RING FROM ONE CONTINUOUS PIECE (NO EXCEPTIONS ALLOWED).
- 5/8" x 10'-0" COPPER CLAD STEEL GROUND ROD SPACED MIN. 10'-0", MAX 15'-0" APART
- GROUND SYSTEM TEST WELL.
- TOWER GROUND BAR.
- GROUND BAR ATTACHED TO ICE BRIDGE.
- #2 SOLID, TINNED BARE COPPER GROUND WIRE FROM GROUND BAR TO GROUND RING (2 REQ'D).
- #2 SOLID, TINNED BARE COPPER GROUND WIRE FROM ICE BRIDGE TO ICE BRIDGE POST.
- #2 SOLID, TINNED BARE COPPER GROUND WIRE IN 1/2" CARFLEX SLEEVE, BOND ICE BRIDGE POST W/ VS TYPE EXOTHERMIC. (1 PER POST REQ'D).
- #6 SOLID TINNED, BARE COPPER GROUND WIRE FROM GPS ANTENNA TO GROUND RING.
- NEW TOWER GROUND RING
- 5/8" x 10'-0" COPPER CLAD GROUND ROD FOR ELECTRICAL SERVICE GROUND.
- #2 SOLID TINNED, BARE COPPER GROUND WIRE FROM UTILITY H-FRAME POST TO GROUND RING.
- #6 AWG GENERATOR SERVICE GROUND.
- A.L.T. OR EQUAL 2/0 GROUNDING CONDUCTOR W/BLACK NEOPRENE INSULATION & PRE-CAPPED ENDS ATTACHED TO GATE POST AND GATE FRAME W/ VS TYPE EXOTHERMIC. INSTALL W/ WELDS 18" ABOVE FINISH GRADE.
- #2 SOLID, TINNED BARE COPPER GROUND WIRE FROM ELECTRICAL SERVICE GROUND TO LIGHTNING PROTECTION GROUND RING.
- #2 SOLID TINNED, BARE COPPER GROUND WIRE FROM FIBER CABINET TO GROUND RING.
- #2 SOLID TINNED, BARE COPPER GROUND WIRE FROM METER BANK TO GROUND RING.
- #2 SOLID TINNED, BARE COPPER GROUND WIRE FROM GENERATOR TO GROUND RING.





GROUND DETAIL SCALE: N.T.S. 2



GROUND TEST WELL DETAIL SCALE: N.T.S. 4



NOT USED SCALE: N.T.S. 3



NOT USED SCALE: N.T.S. 5

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221794

SITE ADDRESS
**499 MILE LANE
MIDDLETOWN, CT 06457**

SHEET NAME
GROUNDING NOTES AND DETAILS

SHEET NUMBER

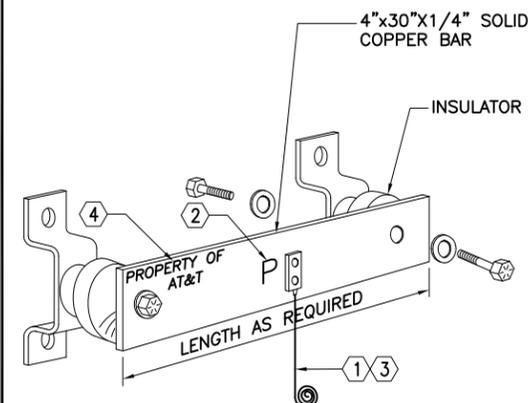
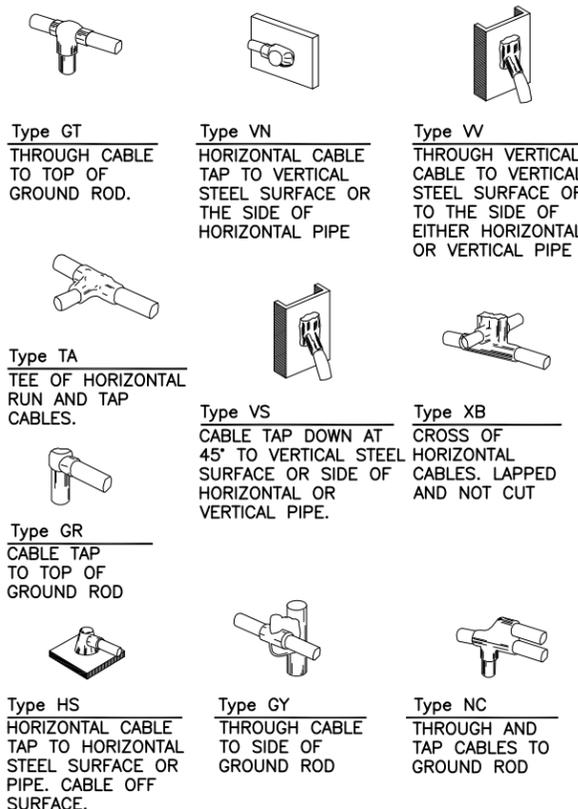
G-2

RISER DIAGRAM

SCALE: N.T.S. 1

GROUNDING NOTES:

- ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER) SHALL BE BONDED TOGETHER BELOW GRADE BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE ELECTRICAL CODE.
- THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
- THE SUBCONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT & PROVIDE TESTING RESULTS.
- METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED CODING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
- METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
- EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 AWG STRANDED COPPER FOR OUTDOOR BTS.
- CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED. BACK TO BACK CONNECTIONS ON OPPOSITE SIDES OF THE GROUND BUS ARE PERMITTED.
- ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING, SHALL BE #2 AWG 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 & 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 AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- BOND ALL METALLIC OBJECTS WITHIN 6 FT. OF MAIN GROUND WIRES WITH 1-#2 AWG TIN-PLATED COPPER GROUND CONDUCTOR.
- GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NONMETALLIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G. NON-METALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
- CONTRACTOR TO USE NO-OX COPPER SHIELD OR APPROVED EQUAL.



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

CONNECTION FOR:
 COAXIAL CABLE SHIELD
 COAXIAL CABLE SURGE SUPPRESSORS
 CABLE ENTRY PORTS (HATCH PLATES)
 RECTIFIER FRAMES
 24V & 48V DC POWER RETURN BAR
 GENERATOR FRAME WORK
 TELCO GROUND BAR MASTER GROUND BAR

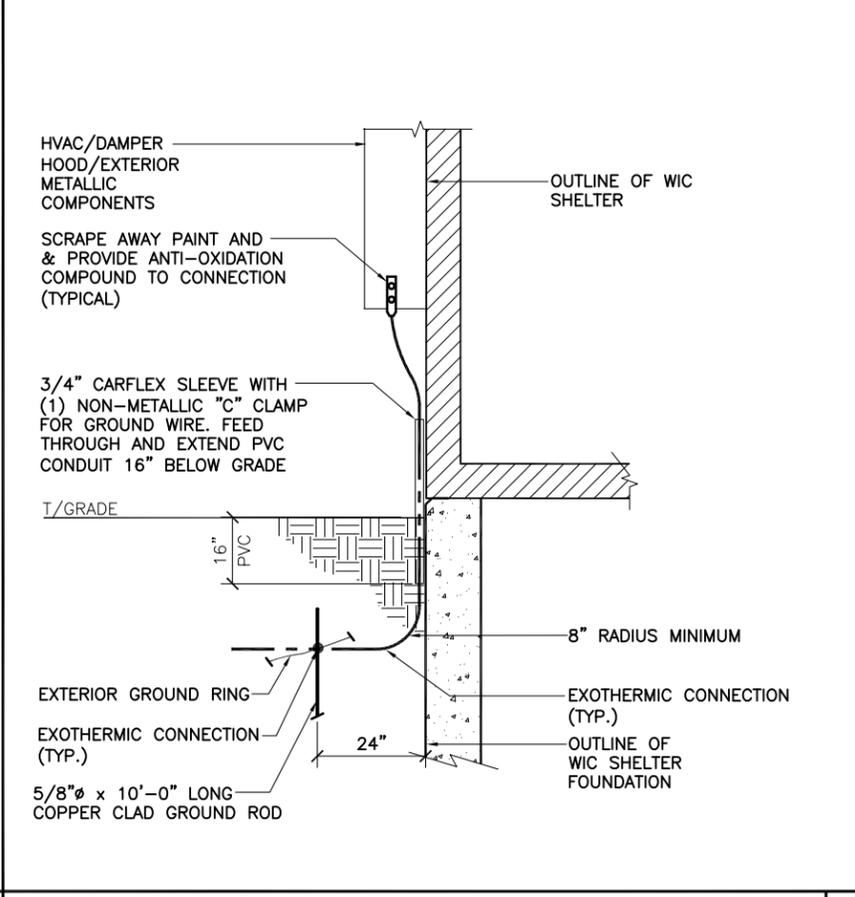
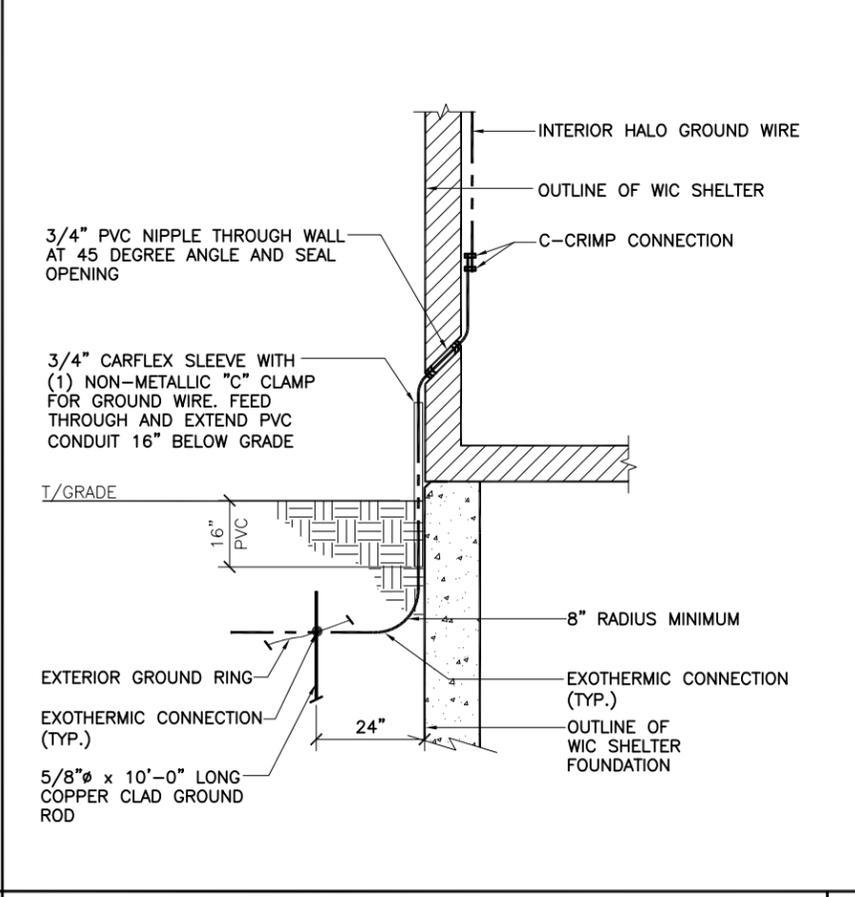
- DETAIL NOTES:**
- TWO-HOLE, LONG BARREL COMPRESSION LUG WITH AWG STRANDED COPPER CONDUCTOR AND GREEN THW INSULATION TO GROUND BAR. ROUTE CONDUCTOR AS APPLICABLE TO BURIED GROUND CONDUCTOR OR MASTER GROUND BAR AND CONNECT WITH TWO-HOLE LUG TO "P" SECTION.
 - USE PERMANENT MARKER TO LABEL THE WHOLE BAR AS "P" WITH 1" HIGH LETTERS.
 - FOR GROUND BAR LOCATED OUTDOORS, ON-GRADE ONLY, EXOTHERMICALLY WELD A 2 AWG BARE TINNED COPPER CONDUCTOR TO GROUND BAR AND EXOTHERMICALLY WELD TO BURIED GROUND CONDUCTOR.
 - GROUND BARS SHALL BE TINNED COPPER AND SHALL BE ENGRAVED OR IMPRESSED "STOLEN-DO NOT RECYCLE" AND/OR "PROPERTY OF AT&T", ETCHED OR STAMPED WITH SITE FA LOCATION AND SECURED WITH ANTI-THEFT HARDWARE.
 - CONTRACTOR TO PROVIDE GROUND BAR WITH ADEQUATE 2 HOLE CONNECTIONS BASED UPON TOTAL EQUIPMENT BEING CONNECTED.
 - CONTRACTOR TO USE NO-OX COPPER SHIELD OR APPROVED EQUAL.



REV	DATE	DESCRIPTION	BY
0	03/02/20	90% REVIEW	KC
1	03/18/20	FOR PERMIT	RO
2	06/09/20	FOR PERMIT	KC
3	07/14/20	FOR PERMIT	KC

EXOTHERMIC WELD DETAILS SCALE: N.T.S. 2

GROUND BAR DETAIL SCALE: N.T.S. 3



WIC SHELTER GROUNDING DETAIL SCALE: N.T.S. 1

HVAC GROUNDING DETAIL SCALE: N.T.S. 4

GROUNDING NOTES SCALE: N.T.S. 1

SITE NUMBER
CT3470A

SITE NAME
MIDDLETOWN_MILE LANE

FA NUMBER:
10578361

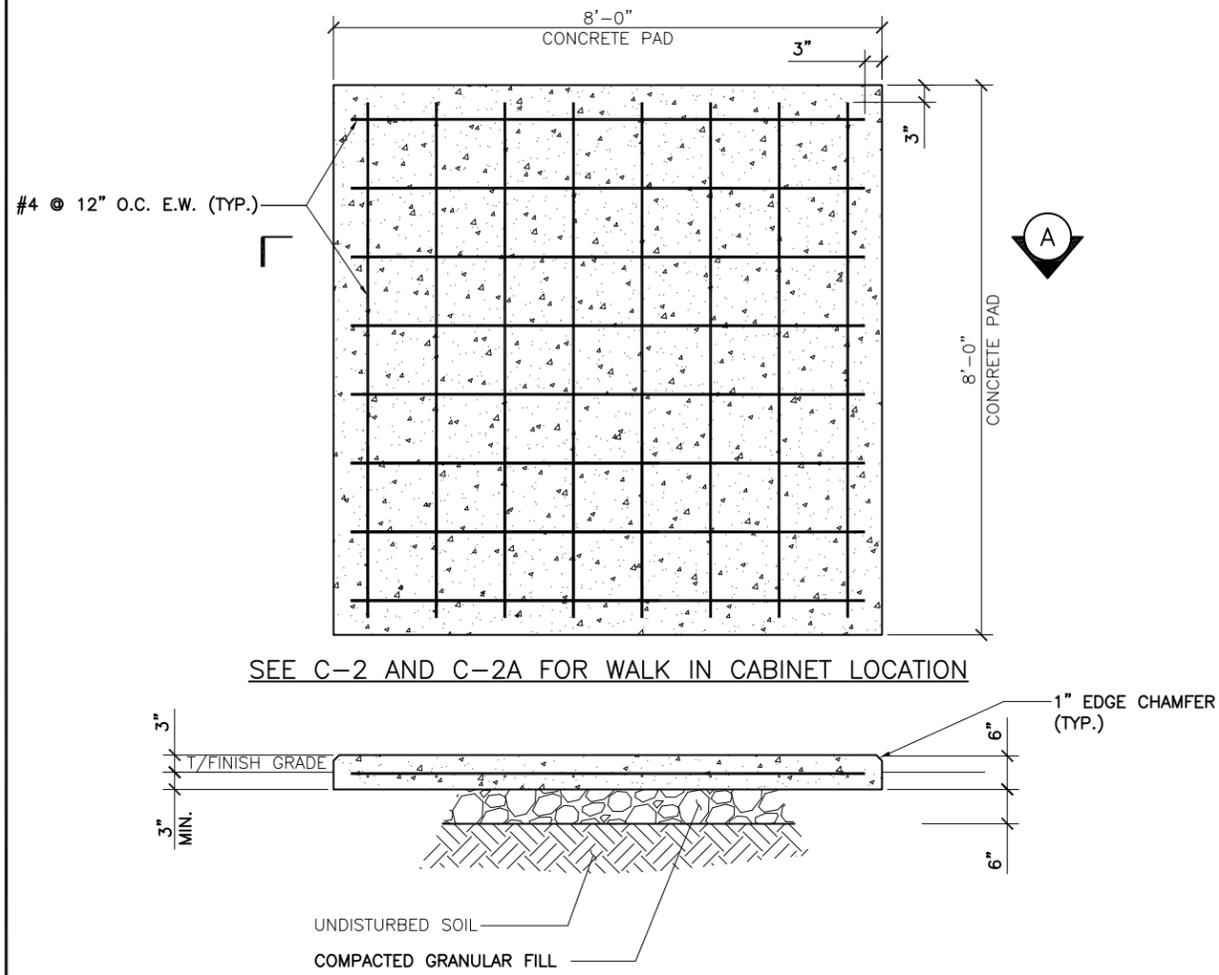
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GROUNDING NOTES AND DETAILS

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G-3

NOTES:
 1. REFER TO SITE PLAN FOR EQUIPMENT SHELTER/PRECAST CONCRETE SLAB ORIENTATION.
 2. SLAB TO BE LEVEL $\pm 1/4"$.
 3. USE SHIMS AS REQUIRED TO ASSURE EQUIPMENT SHELTER/PRECAST CONCRETE SLAB IS LEVEL.



SEE C-2 AND C-2A FOR WALK IN CABINET LOCATION

SECTION A

CONCRETE:

1. MEET OR EXCEED THE FOLLOWING CODES AND STANDARDS:

DESIGN	ACI 318
CONSTRUCTION	ACI 301
HOT WEATHER PLACEMENT	ACI 305
COLD WEATHER PLACEMENT	ACI 306
CEMENT	ASTM C-150 (TYPE I)
REINFORCING BARS	ASTM A-615
WIRE MESH	ASTM A-185
NORMAL WT AGGREGATE	ASTM C-33
MIXING	ASTM C-94
ADMIXTURES	ASTM C-494
AIR ENTRAINMENT	ASTM C-260
WATER	POTABLE
DETAILING	CRSI MANUAL OF STANDARD PRACTICE

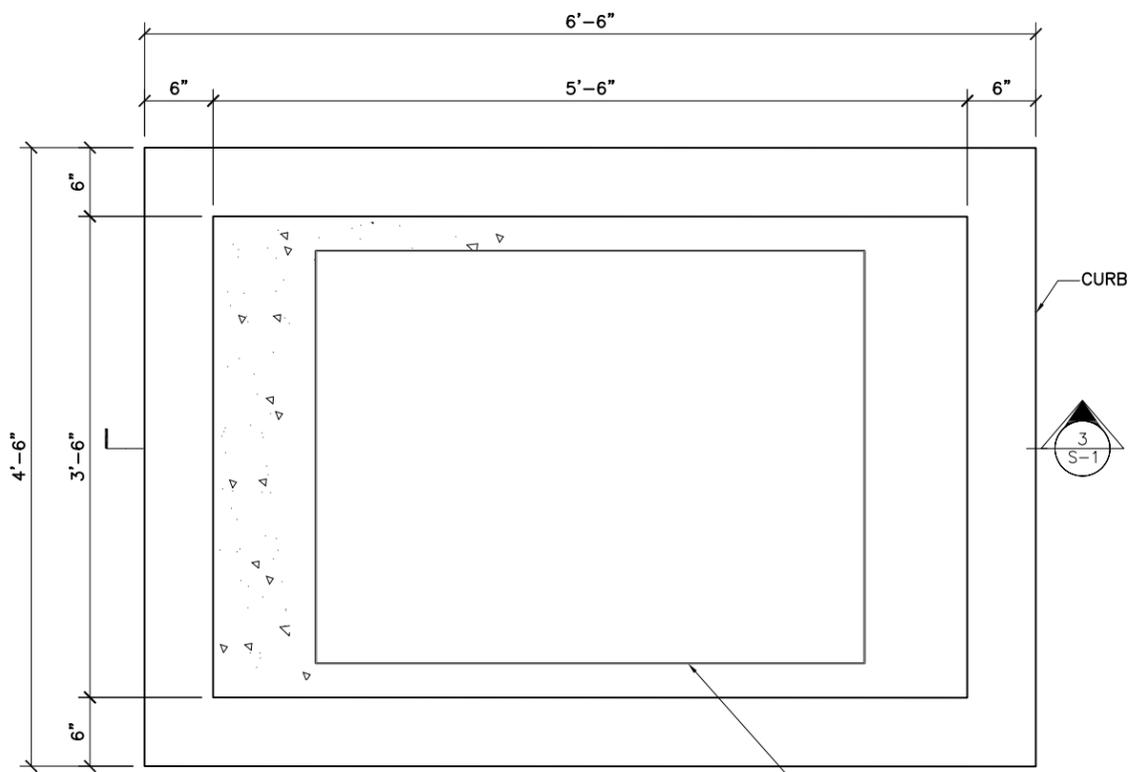
- CONCRETE SHALL BE NORMAL WEIGHT WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.
- PROVIDE AIR ENTRAINED CONCRETE WITH AIR CONTENT OF 4% TO 7%. FOR ALL CONCRETE EXPOSED TO EARTH OR WEATHER
- ALL REINFORCING STEEL SHALL BE GRADE 60.
- MINIMUM CONCRETE COVER FOR REINFORCING BARS:
 A. CAST AGAINST AND EXPOSED TO EARTH: 3"
 B. EXPOSED TO EARTH OR WEATHER (NO. 5 AND SMALLER): 1 1/2"
 C. EXPOSED TO EARTH OR WEATHER (NO. 6 AND LARGER): 2"
- NO ADMIXTURE SHALL CONTAIN CALCIUM CHLORIDE.
- PROVIDE ALL ACCESSORIES NECESSARY TO SUPPORT REINFORCEMENT.

WALK IN CABINET CONCRETE PAD

SCALE: N.T.S.

1

SECTION

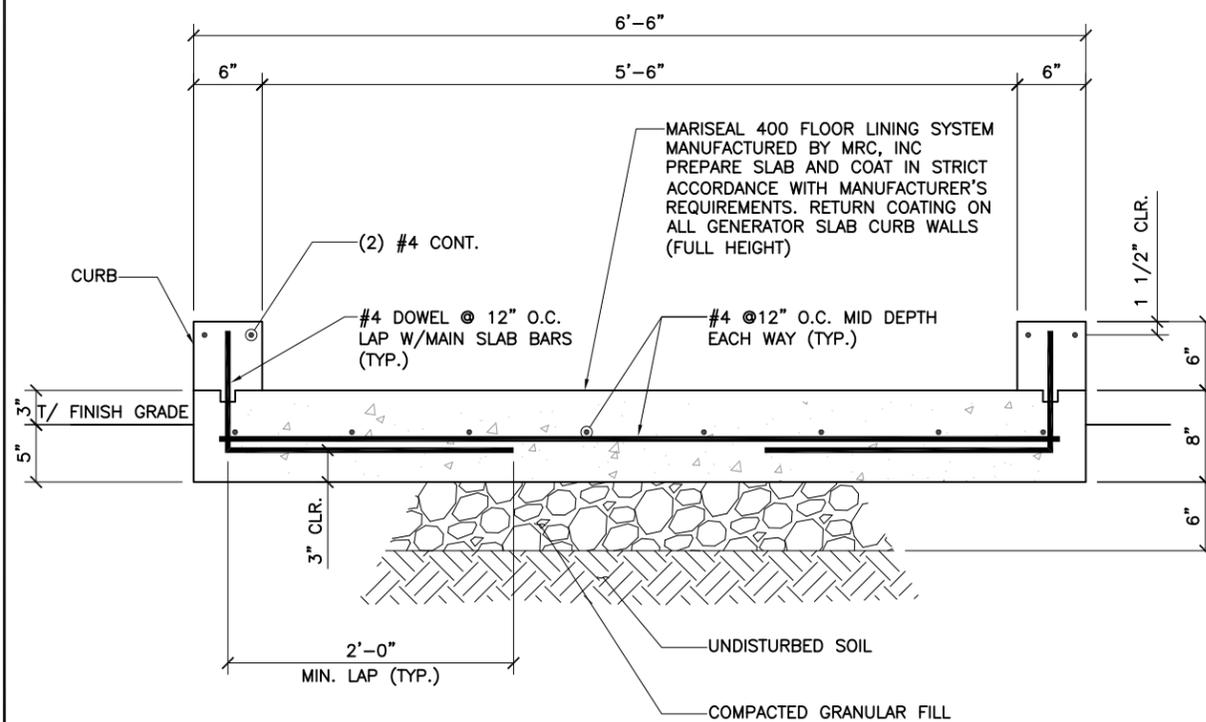


SEE C-2 AND C-2A FOR GENERATOR CONCRETE PAD LOCATION

NEW AT&T 20kW GENERATOR
2400 LBS

GENERATOR CONCRETE PAD

SCALE: 3/4" = 1'-0" 2



NOTE:
GENERATOR NOT SHOWN FOR CLARITY

SCALE: 1" = 1'-0" 3



7150 STANDARD DRIVE
HANOVER, MD 21076



1362 MELLON ROAD, SUITE 140
HANOVER, MD 21076



1100 E. WOODFIELD ROAD, SUITE 500
SCHAUMBURG, ILLINOIS 60173
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COA# PEC.0001444
www.FullertonEngineering.com

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SHEET NAME

GROUNDING PLAN

SHEET NUMBER

S-1