



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: [siting.council@ct.gov](mailto:siting.council@ct.gov)

[www.ct.gov/csc](http://www.ct.gov/csc)

March 4, 2019

Nora Oliver  
Site Acquisition Manger  
Empire Telecom USA, LLC  
16 Esquire Road  
Billerica, MA 01862

RE: **EM-AT&T-051-190204** – AT&T Mobility notice of intent to modify an existing telecommunications facility located at 100 Reef Road, Fairfield, Connecticut.

Dear Ms. Oliver:

The Connecticut Siting Council (Council) received a notice of intent to modify the above-referenced facility on February 4, 2019. On February 27, 2019, the Council issued a letter (enclosed) stating that the request for exempt modification was incomplete because the Structural Analysis Report (SA) and Construction Drawings (CD) both reference the 2016 Connecticut State Building Code (CSBC). The 2018 CSBC became effective on October 1, 2018 and should have been applied to this project. The Council recommended that Empire Telecom provide an updated Structural Analysis Report and Construction Drawings that reference the current 2018 CSBC on or before March 27, 2019.

On March 1, 2019, the Council received a revised SA dated February 28, 2019 which referenced the 2018 CSBC. However, the submission does not contain updated CDs referencing the 2018 CSBC as requested in the letter of incompleteness.

Therefore, the exempt modification request remains incomplete at this time. The Council recommends that Empire Telecom provide updated Construction Drawings that reference the current 2018 CSBC on or before April 4, 2019. If additional time is needed to gather the requested information, please submit a written request for an extension of time prior to April 4, 2019.

This notice of incompleteness shall have the effect of tolling the Federal Communications Commission (FCC) 60-day timeframe in accordance with Paragraph 217 of the FCC Wireless Infrastructure Report and Order issued on October 21, 2014 (FCC 14-153).

Thank you for your attention to this matter. Should you have any questions, please feel free to contact me at 860-827-2951.

Sincerely,

Melanie Bachman  
Executive Director

MAB/IN/emr

Enclosure: Incomplete Letter dated February 27, 2019.

c: The Honorable Michael C. Tetreau, First Selectman, Town of Fairfield  
Jim Wendt, Planning Director, Town of Fairfield



February 27, 2019

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Nora Oliver  
Site Acquisition Manager  
Empire Telecom USA, LLC  
16 Esquire Road  
Billerica, MA 01862

RE: **EM-AT&T-051-190204** – AT&T Mobility notice of intent to modify an existing telecommunications facility located at 100 Reef Road, Fairfield, Connecticut.

Dear Ms. Oliver:

The Connecticut Siting Council (Council) received a notice of intent to modify the above-referenced facility on February 4, 2019.

According to Section 16-50j-71 of the Regulations of Connecticut State Agencies, "...any modification, as defined in Section 16-50j-2a of the Regulations of Connecticut State Agencies, to an existing tower site, except as specified in Sections 16-50j-72 and 16-50j-88 of the Regulations of Connecticut State Agencies, may have a substantial adverse environmental effect."

Staff has reviewed this exempt modification request for completeness and has identified a deficiency in the Structural Analysis Report dated October 8, 2018 and construction drawings dated August 27, 2018 both prepared by Centek Engineering. The above-referenced documents refer to the 2016 Connecticut State Building Code (CSBC); however, the 2018 Connecticut State Building Code CSBC became effective on October 1, 2018 and should be applied to this project.

Therefore, the exempt modification request is incomplete at this time. The Council recommends that Empire Telecom provide an updated Structural Analysis Report and construction drawings that reference the current 2018 CSBC on or before March 27, 2019. If additional time is needed to gather the requested information, please submit a written request for an extension of time prior to March 27, 2019.

This notice of incompleteness shall have the effect of tolling the Federal Communications Commission (FCC) 60-day timeframe in accordance with Paragraph 217 of the FCC Wireless Infrastructure Report and Order issued on October 21, 2014 (FCC 14-153).

Thank you for your attention to this matter. Should you have any questions, please feel free to contact me at 860-827-2951.

Sincerely,

Melanie Bachman  
Executive Director

MLB/IN/emr

c: The Honorable Michael C. Tetreau, First Selectman, Town of Fairfield  
Jim Wendt, Planning Director, Town of Fairfield



## Robidoux, Evan

---

**From:** Nora Oliver <noliver@empiretelecomm.com>  
**Sent:** Wednesday, March 06, 2019 2:51 PM  
**To:** Robidoux, Evan  
**Cc:** CSC-DL Siting Council  
**Subject:** Council 2nd Incomplete Letter for EM-AT&T-051-190204-ReefRd-Fairfield  
**Attachments:** 18000.61 CT5022 Fairfield PD LTE 3C\_4C\_5C\_6C\_5G 850 - Rev1 CDs 19.03.06 ....pdf

Hello,

Per the 2<sup>nd</sup> Incomplete Notice Letter please find attached the revised Plans.

I apologize for not including these on the previous email.

Please let me know if you have any questions.

Thank you

Nora

Nora Oliver  
Empire Telecom USA  
16 Esquire Road  
Billerica, MA 01862  
Tel: 978-808-2111  
Office: 978-608-8424  
Email: [Noliver@EmpireTelecomm.com](mailto:Noliver@EmpireTelecomm.com)  
Website: <http://empiretelecomm.com/>



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**From:** Robidoux, Evan [mailto:Evan.Robidoux@ct.gov]  
**Sent:** Wednesday, March 6, 2019 9:34 AM  
**To:** Nora Oliver  
**Cc:** CSC-DL Siting Council  
**Subject:** Council 2nd Incomplete Letter for EM-AT&T-051-190204-ReefRd-Fairfield

Please see the attached correspondence.

Evan Robidoux  
Clerk Typist  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

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# WIRELESS COMMUNICATIONS FACILITY

## CT5022 - LTE 3C WCS/4C AWS/5C 700 UPPER D/6C 5G 850

### FAIRFIELD

#### 100 REEF ROAD

#### FAIRFIELD, CT 06824

### GENERAL NOTES

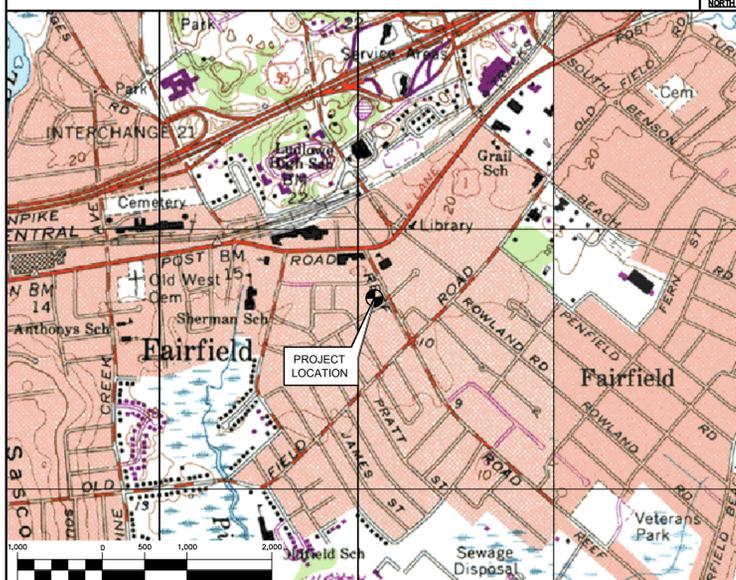
1. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2018 CONNECTICUT STATE BUILDING CODE, INCLUDING THE TIA-222 REVISION "G" STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES, 2016 CONNECTICUT FIRE SAFETY CODE AND, NATIONAL ELECTRICAL CODE AND LOCAL CODES.
2. THE COMPOUND, TOWER, PRIMARY GROUND RING, ELECTRICAL SERVICE TO THE METER BANK AND TELEPHONE SERVICE TO THE DEMARCATION POINT ARE PROVIDED BY SITE OWNER. AS BUILT FIELD CONDITIONS REGARDING THESE ITEMS SHALL BE CONFIRMED BY THE CONTRACTOR. SHOULD ANY FIELD CONDITIONS PRECLUDE COMPLIANCE WITH THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL NOT PROCEED WITH ANY AFFECTED WORK.
3. CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUBCONTRACTORS AND ALL RELATED PARTIES. THE SUBCONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.
4. CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON THE DRAWINGS OR IN THE WRITTEN SPECIFICATIONS.
5. CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.
6. CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND ALL INSPECTIONS REQUIRED AND SHALL ALSO PAY FEES REQUIRED FOR THE GENERAL CONSTRUCTION, PLUMBING, ELECTRICAL AND HVAC. PERMITS SHALL BE PAID FOR BY THE RESPECTIVE SUBCONTRACTORS.
7. CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE DISTRIBUTION OF NEW DRAWINGS TO SUBCONTRACTORS AND OTHER RELEVANT PARTIES AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED VOID AND REMOVED FROM THE CONTRACT AREA. THE CONTRACTOR SHALL FURNISH AN "AS-BUILT" SET OF DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.
8. LOCATION OF EQUIPMENT, AND WORK SUPPLIED BY OTHERS THAT IS DIAGRAMMATICALLY INDICATED ON THE DRAWINGS SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE LOCATIONS AND DIMENSIONS SUBJECT TO STRUCTURAL CONDITIONS AND WORK OF THE SUBCONTRACTORS.
9. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY. MAINTAIN EXISTING BUILDING'S/PROPERTY'S OPERATIONS, COORDINATE WORK WITH BUILDING/PROPERTY OWNER.
10. DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.
11. ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
12. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUBCONTRACTORS FOR ANY CONDITION PER MFR.'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
13. ANY AND ALL ERRORS, DISCREPANCIES, AND 'MISSED' ITEMS ARE TO BE BROUGHT TO THE ATTENTION OF THE AT&T CONSTRUCTION MANAGER DURING THE BIDDING PROCESS BY THE CONTRACTOR. ALL THESE ITEMS ARE TO BE INCLUDED IN THE BID. NO 'EXTRA' WILL BE ALLOWED FOR MISSED ITEMS.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE SAFETY FROM THE TIME THE JOB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
15. CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ENGINEER FOR APPROVAL. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTING TO THE CONSTRUCTION MANAGER FOR REVIEW.
16. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES, AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA.
17. COORDINATION, LAYOUT, FURNISHING AND INSTALLATION OF CONDUIT AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
18. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUB-CONTRACTORS FOR ANY CONDITION PER THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
19. ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
20. THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT LEAST 48 HOURS PRIOR TO ANY EXCAVATIONS AT 1-800-922-4455. ALL UTILITIES SHALL BE IDENTIFIED AND CLEARLY MARKED PRIOR TO ANY EXCAVATION WORK. CONTRACTOR SHALL MAINTAIN AND PROTECT MARKED UTILITIES THROUGHOUT PROJECT COMPLETION.
21. CONTRACTOR SHALL COMPLY WITH OWNERS ENVIRONMENTAL ENGINEER ON ALL METHODS AND PROVISIONS FOR ALL EXCAVATION ACTIVITIES INCLUDING SOIL DISPOSAL. ALL BACKFILL MATERIALS TO BE PROVIDED BY THE CONTRACTOR.

### SITE DIRECTIONS

FROM:	TO:
500 ENTERPRISE DRIVE ROCKY HILL, CONNECTICUT	100 REEF ROAD FAIRFIELD, CONNECTICUT
1. TURN LEFT ONTO CAPITAL BLVD.	0.36 MI
2. TURN LEFT ONTO WEST ST.	0.27 MI
3. TURN LEFT TO MERGE ONTO I-91 S TOWARD NEW HAVEN.	0.30 MI
4. TAKE EXIT 17 FOR CT-15 S/W CROSS PKWY.	9.59 MI
5. TAKE EXIT 52 FOR CT- 8 S.	30.24 MI
6. MERGE ONTO CT-8 S VIA EXIT 52 TOWARD BRIDGEPORT.	5.93 MI
7. MERGE ONTO I-95 S TOWARD NY CITY.	4.50 MI
8. TAKE THE MILL PLAIN ROAD EXIT, EXIT 21.	0.26 MI
9. TURN LEFT ONTO MILL PLAIN RD.	0.32 MI
10. TURN LEFT ONTO POST RD/US-1 N.	0.29 MI
11. TURN RIGHT ONTO REEF RD.	0.11 MI

### VICINITY MAP

SCALE: 1" = 1000'



### PROJECT SUMMARY

1. THE PROPOSED SCOPE OF WORK CONSISTS OF A MODIFICATION TO THE EXISTING UNMANNED TELECOMMUNICATIONS FACILITY INCLUDING THE FOLLOWING:
  - A. AT ANTENNA SECTORS:
    - REMOVE (3) EXISTING ANTENNAS AT POS.4 (1 PER SECTOR)
    - RELOCATE (3) EXISTING ANTENNAS FROM POS.3 TO POS.2
    - INSTALL (3) NEW 8-PORT ANTENNAS AT POS.3 (1 PER SECTOR)
    - INSTALL (3) NEW 6-PORT ANTENNAS AT POS.4 (1 PER SECTOR)
    - INSTALL (3) NEW B14 4478 ASSIGNED TO POS.3 (1 PER SECTOR)
    - INSTALL (3) NEW 4478 B5 ASSIGNED TO POS.3 (1 PER SECTOR)
    - INSTALL (3) NEW 4426 B66 ASSIGNED TO POS.3 (1 PER SECTOR)
    - INSTALL (3) NEW RRUS-32 ASSIGNED TO POS.4 (1 PER SECTOR)
    - INSTALL (6) NEW LOW-BAND COMBINERS AT POS.3 (2 PER SECTOR)
    - INSTALL (1) NEW DC FIBER SQUID
    - INSTALL (1) NEW DC SQUID ONLY
    - INSTALL (6) NEW SWIVEL MOUNTS AT POS.3 & POS.4 (2) PER SECTOR)
    - INSTALL (4) DC CABLES
    - INSTALL (1) 18 PAIR FIBER CABLES
  - B. AT THE EQUIPMENT SHELTER
    - REMOVE (12) EXISTING DIPLEXERS
    - REMOVE (6) EXISTING RRUW'S
    - REMOVE AND DECOMMISSION (2) EXISTING GSM EQUIP. CABINETS
    - INSTALL (3) NEW LOWBAND COMBINERS
    - REMOVE EXISTING BBU WITH 2x 5216 UNITS
    - INSTALL 2ND XMU+IDLE
    - INSTALL (1) NEW RBS 6630
    - INSTALL (1) NEW DC-12-48-60-25E

### PROJECT INFORMATION

AT&T SITE NUMBER:	CT5022
AT&T SITE NAME:	FAIRFIELD
SITE ADDRESS:	100 REEF ROAD FAIRFIELD, CT 06824
LESSEE/APPLICANT:	AT&T MOBILITY 500 ENTERPRISE DRIVE, SUITE 3A ROCKY HILL, CT 06067
AT&T PACE ID NUMBER:	PACE JOB 1 - MRCTB031119 PACE JOB 2 - MRCTB031921 PACE JOB 3 - MRCTB031461 PACE JOB 4 - MRCTB031662
AT&T FA LOCATION CODE:	10108711
ENGINEER:	CEN TEK ENGINEERING, INC. 63-2 NORTH BRANFORD RD. BRANFORD, CT 06405
PROJECT COORDINATES:	LATITUDE: 41°-08'-22.53" N LONGITUDE: 73°-15'-26.54" W GROUND ELEVATION: ±12' AMSL SITE COORDINATES AND GROUND ELEVATION REFERENCED FROM GOOGLE EARTH.

### SHEET INDEX

SHT. NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	1
N-1	NOTES, SPECIFICATIONS AND ANTENNA SCHEDULE	1
C-1	PLANS AND ELEVATION	1
C-2	ANTENNA CONFIGURATION DETAILS	1
C-3	DETAILS	1
E-1	SCHEMATIC DIAGRAM AND NOTES	1
E-2	WIRING DIAGRAM	1
E-3	TYPICAL ELECTRICAL DETAILS	1

PROFESSIONAL ENGINEER SEAL



**CEN TEK** engineering  
Centered on Solutions®  
(203) 488-0360  
(203) 488-8387 Fax  
63-2 North Branford Road  
Branford, CT 06405  
www.CentekEng.com

AT&T MOBILITY  
WIRELESS COMMUNICATIONS FACILITY  
**FAIRFIELD**  
CT5022 - LTE 3C/4C/5C/6C 5G 850  
100 REEF ROAD  
FAIRFIELD, CT 06824

DATE: 08/27/18  
SCALE: AS NOTED  
JOB NO. 18000.61

TITLE SHEET

**T-1**  
Sheet No. 1 of 8

REV.	DATE	BY	CHK'D	DESCRIPTION
1	3/6/19	TJL		
0	10/17/18	DMD		

CAG	CONSTRUCTION DRAWINGS	REVISED CODE REFERENCE



TOP OF EXISTING MONOPOLE  
EL. ±150' A.G.L.

EXISTING/PROPOSED AT&T ANTENNAS  
EL. ±130' A.G.L.

EXISTING ±150' TALL MONOPOLE

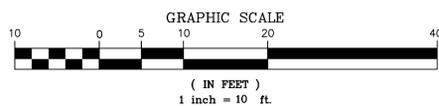
PROPOSED AT&T CABLES ROUTED FROM  
EXISTING EQUIPMENT SHELTER TO  
ANTENNA LOCATION

- (4) DC CABLES
- (1) 18 PAIR FIBER CABLES

EXISTING AT&T EQUIPMENT SHELTER  
EXISTING EQUIPMENT  
SHELTER (BY OTHERS)

**TOWER STRUCTURAL NOTES:**

1. REFER TO STRUCTURAL ANALYSIS REPORT PREPARED BY CENTEK ENGINEERING, INC., PROJ. NO. 18000.61, DATED FEBRUARY 28, 2019 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
2. ALL ANTENNAS AND COAX TO BE INSTALLED IN ACCORDANCE WITH STRUCTURAL ANALYSIS PROVIDED BY CENTEK ENGINEERING AND FINAL AT&T RF DATA SHEET.



**3 PARTIAL NORTHWEST ELEVATION - PROPOSED**  
C-1 SCALE: 1" = 10'

EXISTING ±150' TALL  
MONOPOLE TOWER.

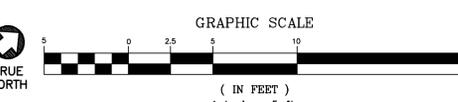


EXISTING EQUIPMENT PLATFORM  
ON ROOF (BY OTHERS)



EXISTING STEEL SUPPORT BEAM

**1 PARTIAL ROOF/SITE PLAN**  
C-1 SCALE: 1" = 5'-0"



PROPOSED AT&T COAX CABLES

- (4) DC CABLES
- (1) 18 PAIR FIBER CABLES

EXISTING AT&T COAX CABLE, TYP. ROUTED  
THRU EQUIPMENT SHELTER FLOOR

EXISTING AT&T DIPLEXER RACK (ABOVE)

- REMOVE (12) EXISTING DIPLEXERS
- INSTALL (3) NEW LOW-BAND COMBINERS  
(P/N: DBC0061F1V51-2)

EXISTING AT&T UMTS CABINET

EXISTING AT&T EQUIPMENT SHELTER HVAC  
TYP.

EXISTING AT&T FLOOR-MOUNTED BATTERY RACK

EXISTING AT&T DC POWER PLANT

**2 EQUIPMENT LAYOUT PLAN - PROPOSED**  
C-1 SCALE: 3/8" = 1'-0"

EXISTING AT&T FIF RACK

EXISTING AT&T AC PANEL

EXISTING AT&T DISCONNECT

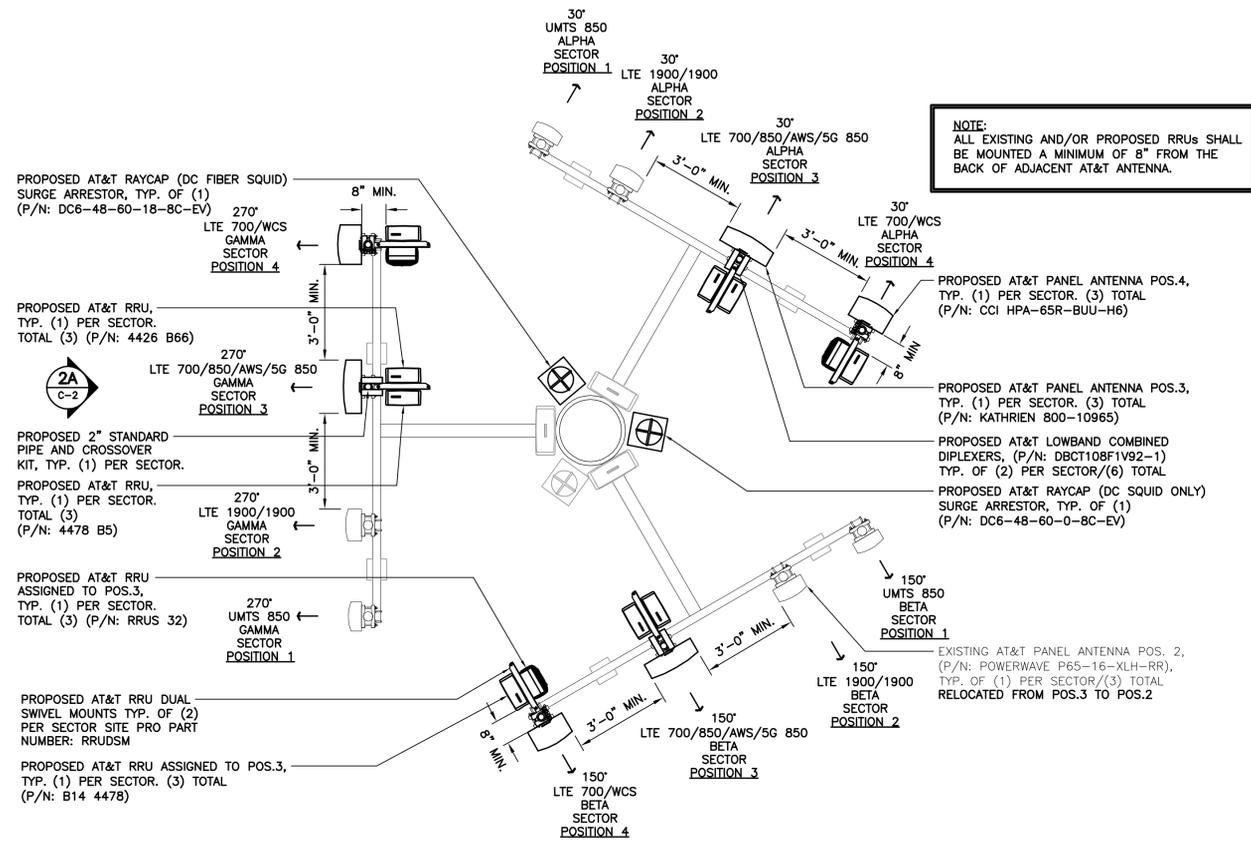
EXISTING AT&T UMTS RRWU'S MOUNTED  
TO EQUIPMENT RACK, TYP. OF (6)  
TO BE DECOMMISSIONED AND REMOVED

EXISTING AT&T LTE EQUIPMENT RACK

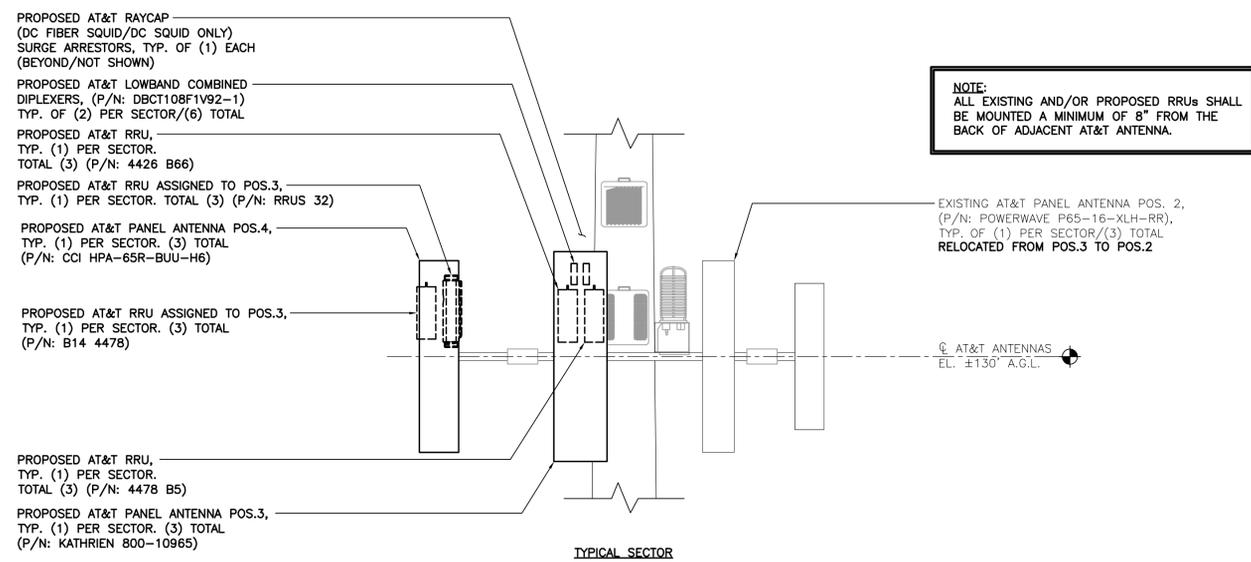
- REMOVE AND REPLACE EXISTING  
BBU WITH (2) 5216 UNITS
- INSTALL 2ND XMU UNIT+IDLE
- INSTALL NEW RBS 6630
- INSTALL (1) NEW DC-12-48-60-25E

EXISTING AT&T GSM CABINETS, TYP. (2)  
TO BE DECOMMISSIONED AND REMOVED

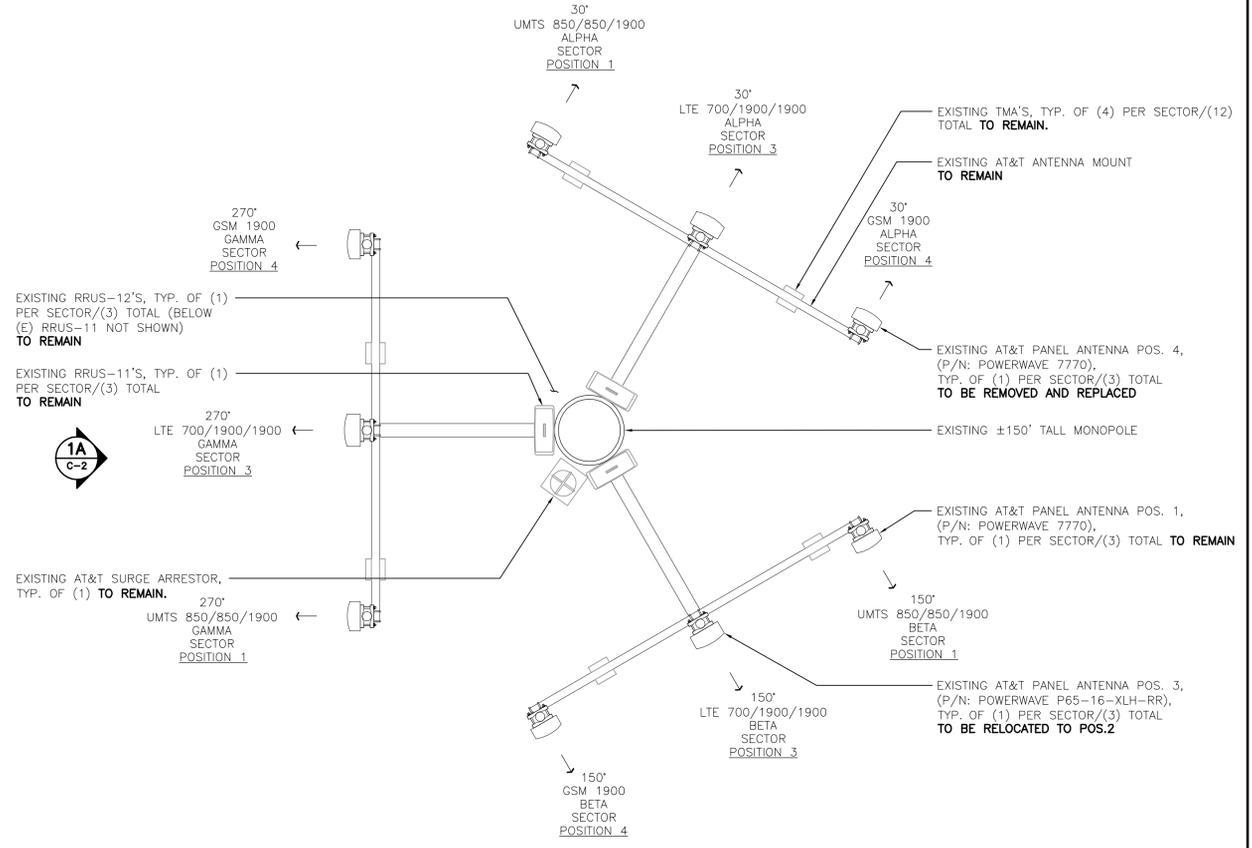
PROFESSIONAL ENGINEER SEAL	DATE	REV.	CAG	CONSTRUCTION DRAWINGS
	3/6/19	0	TJL	- REVISED CODE REFERENCE
	10/17/18	1	DMD	- ISSUED FOR CONSTRUCTION
(203) 488-0360 (203) 488-8387 Fax 63-2 North Branford Road Branford, CT 06405 www.CentekEng.com				
AT&T MOBILITY WIRELESS COMMUNICATIONS FACILITY <b>FAIRFIELD</b> CT5022 - LTE 3C/4C/5C/6C 5G 850 100 REEF ROAD FAIRFIELD, CT 06824				
DATE: 08/27/18				
SCALE: AS NOTED				
JOB NO. 18000.61				
PLANS AND ELEVATION				
<span style="font-size: 2em;">C-1</span>				
Sheet No. 3 of 8				



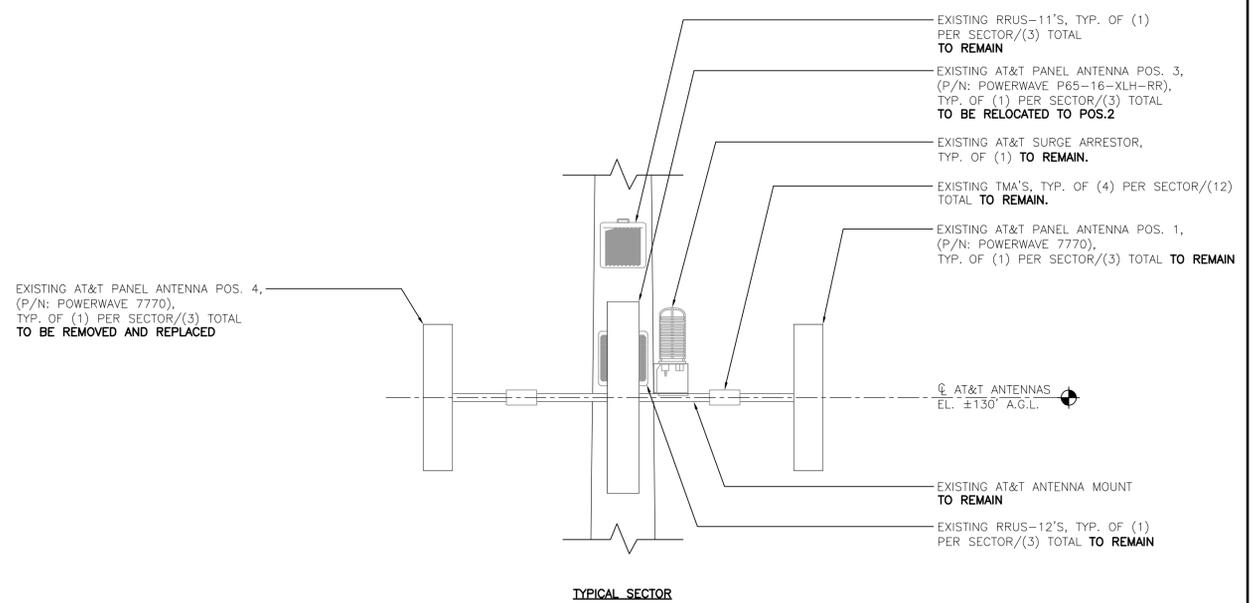
**2 PROPOSED ANTENNA PLAN**  
SCALE: 3/8" = 1'-0"  
TRUE NORTH



**2A PROPOSED ANTENNA SECTOR ELEVATION**  
SCALE: 3/8" = 1'-0"

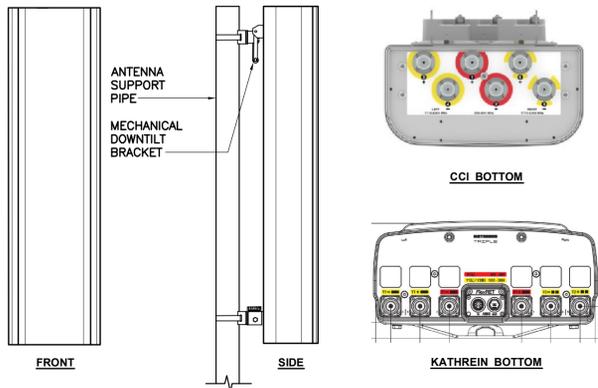


**1 EXISTING ANTENNA PLAN**  
SCALE: 3/8" = 1'-0"  
TRUE NORTH



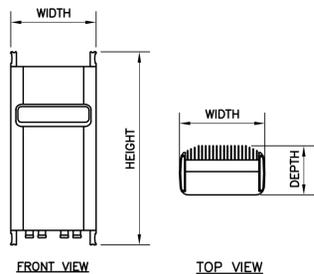
**1A EXISTING ANTENNA SECTOR ELEVATION**  
SCALE: 3/8" = 1'-0"

CONSTRUCTION DRAWINGS - REVISED CODE REFERENCE	ISSUED FOR CONSTRUCTION
CAG	DATE
1	3/6/19
0	10/11/18
DATE	REV.
DRAWN BY: CHK'D BY:	
PROFESSIONAL ENGINEER SEAL	
(203) 488-0380 (203) 488-8387 Fax 63-2 North Branford Road Branford, CT 06405 www.CentekEng.com	
AT&T MOBILITY WIRELESS COMMUNICATIONS FACILITY <b>FAIRFIELD</b> CT5022 - LTE 3C/4C/5C/6C 5G 850 100 REEF ROAD FAIRFIELD, CT 06824	
DATE:	08/27/18
SCALE:	AS NOTED
JOB NO.	18000.61
ANTENNA CONFIGURATION DETAILS	
<b>C-2</b>	
Sheet No. 4 of 8	



ALPHA/BETA/GAMMA ANTENNA		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: KATHREIN MODEL: 800-10965	78.7"L x 20"W x 6.9"D	108.6 LBS.
MAKE: CCI MODEL: HPA-65R-BUU-H6	72"L x 14.8"W x 9"D	51 LBS.

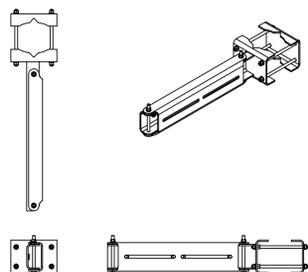
**1 PROPOSED ANTENNA DETAIL**  
C-3 SCALE: NTS



RRU (REMOTE RADIO UNIT)			
EQUIPMENT	DIMENSIONS	WEIGHT	CLEARANCES
MAKE: ERICSSON MODEL: RRUS-32	27.17"H x 12.05"W x 7.01"D	52.91 LBS.	ABOVE: 16" MIN. BELOW: 12" MIN. FRONT: 36" MIN.

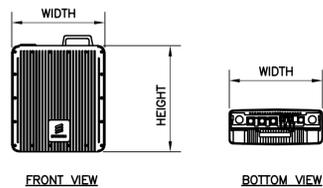
NOTES:  
1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH AT&T CONSTRUCTION MANAGER PRIOR TO ORDERING.

**5 ERICSSON RRUS 32 DETAIL**  
C-3 SCALE: 1" = 1'-0"



RRU DUAL SWIVEL MOUNT		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: SITE PRO 1 PART NO.: RRUSM	27.75"L x 6.5"W x 4.7"D	39.4 LBS.

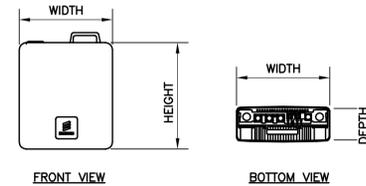
**7 RRH DUAL SWIVEL MOUNT DETAIL**  
C-3 NOT TO SCALE



RRU (REMOTE RADIO UNIT)			
EQUIPMENT	DIMENSIONS	WEIGHT	CLEARANCES
MAKE: ERICSSON MODEL: 4426 B66	15.0"L x 13.2"W x 5.8"D	48.5 LBS.	ABOVE: 16" MIN. BELOW: 12" MIN. FRONT: 36" MIN.

NOTES:  
1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH AT&T CONSTRUCTION MANAGER PRIOR TO ORDERING.

**2 ERICSSON 4426 B66 DETAIL**  
C-3 SCALE: 1" = 1'-0"



RRU (REMOTE RADIO UNIT)			
EQUIPMENT	DIMENSIONS	WEIGHT	CLEARANCES
MAKE: ERICSSON MODEL: 4478 B5	16.5"L x 13.4"W x 7.7"D	59.9 LBS.	ABOVE: 16" MIN. BELOW: 12" MIN. FRONT: 36" MIN.

NOTES:  
1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH AT&T CONSTRUCTION MANAGER PRIOR TO ORDERING.

**3 ERICSSON 4478 B5 DETAIL**  
C-3 NOT TO SCALE

RRU (REMOTE RADIO UNIT)			
EQUIPMENT	DIMENSIONS	WEIGHT	CLEARANCES
MAKE: ERICSSON MODEL: B14 4478	14.9"L x 13.1"W x 7.3"D	60 LBS.	ABOVE: 16" MIN. BELOW: 12" MIN. FRONT: 36" MIN.

NOTES:  
1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH AT&T CONSTRUCTION MANAGER PRIOR TO ORDERING.

**4 ERICSSON B14 4478 DETAIL**  
C-3 SCALE: 1" = 1'-0"



DIPLEXER 600-700/850		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: KAELUS MODEL: DBCT108F1V92-1	10.71"H x 6.77"W x 3.52"D	13.9 LBS.

NOTES:  
1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH AT&T CONSTRUCTION MANAGER PRIOR TO ORDERING.

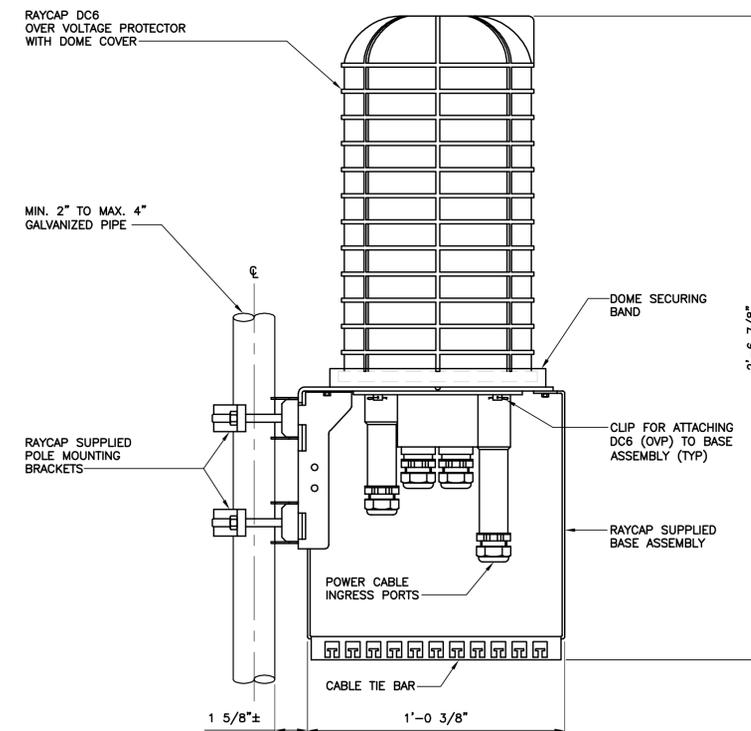
**6 KAELUS DBC0061FV51-2 DETAIL**  
C-3 SCALE: NOT TO SCALE



DIPLEXER 700/850		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: KAELUS MODEL: DBC0061FV51-2	8"H x 6.45"W x 6.2"D	18.3 LBS.

NOTES:  
1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH AT&T CONSTRUCTION MANAGER PRIOR TO ORDERING.

**8 KAELUS DBC0061FV51-2 DETAIL**  
C-3 NOT TO SCALE

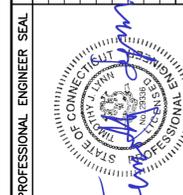


SITE TYPE	ARRESTOR MAKE/MODEL	QTY REQUIRED	ARRESTOR LOCATION	WEIGHT
	MAKE: RAYCAP (SQUID ONLY) MODEL: DC6-48-60-0-8C-EV	(1) PER SITE	ADJACENT TO AT&T RRUS.	20 LBS. (WITHOUT MOUNT)
	MAKE: RAYCAP (DC/FIBER SQUID) MODEL: DC6-48-60-18-8C-EV	(1) PER SITE	ADJACENT TO AT&T RRUS.	20 LBS. (WITHOUT MOUNT)

NOTES:  
1. CONTRACTOR TO COORDINATE FINAL SURGE ARRESTOR MODEL SELECTION(S) WITH AT&T CONSTRUCTION MANAGER PRIOR TO ORDERING.  
2. CONTRACTOR TO INSTALL ARRESTOR IN CONFORMANCE WITH MANUFACTURERS RECOMMENDATIONS.  
3. RAYCAP VIA AT&T SUPPLIES THE DC6 OVER VOLTAGE PROTECTOR AND PIPE MOUNTING BRACKETS. SUBCONTRACTOR SHALL SUPPLY THE PIPE.

**9 TYPICAL SURGE PROTECTION DETAILS**  
C-3 NOT TO SCALE

REV.	DATE	BY	CHK'D	DESCRIPTION
1	3/6/19	TJL	DMD	CONSTRUCTION DRAWINGS - REVISED CODE REFERENCE
0	10/11/18	CAG	CAG	CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION

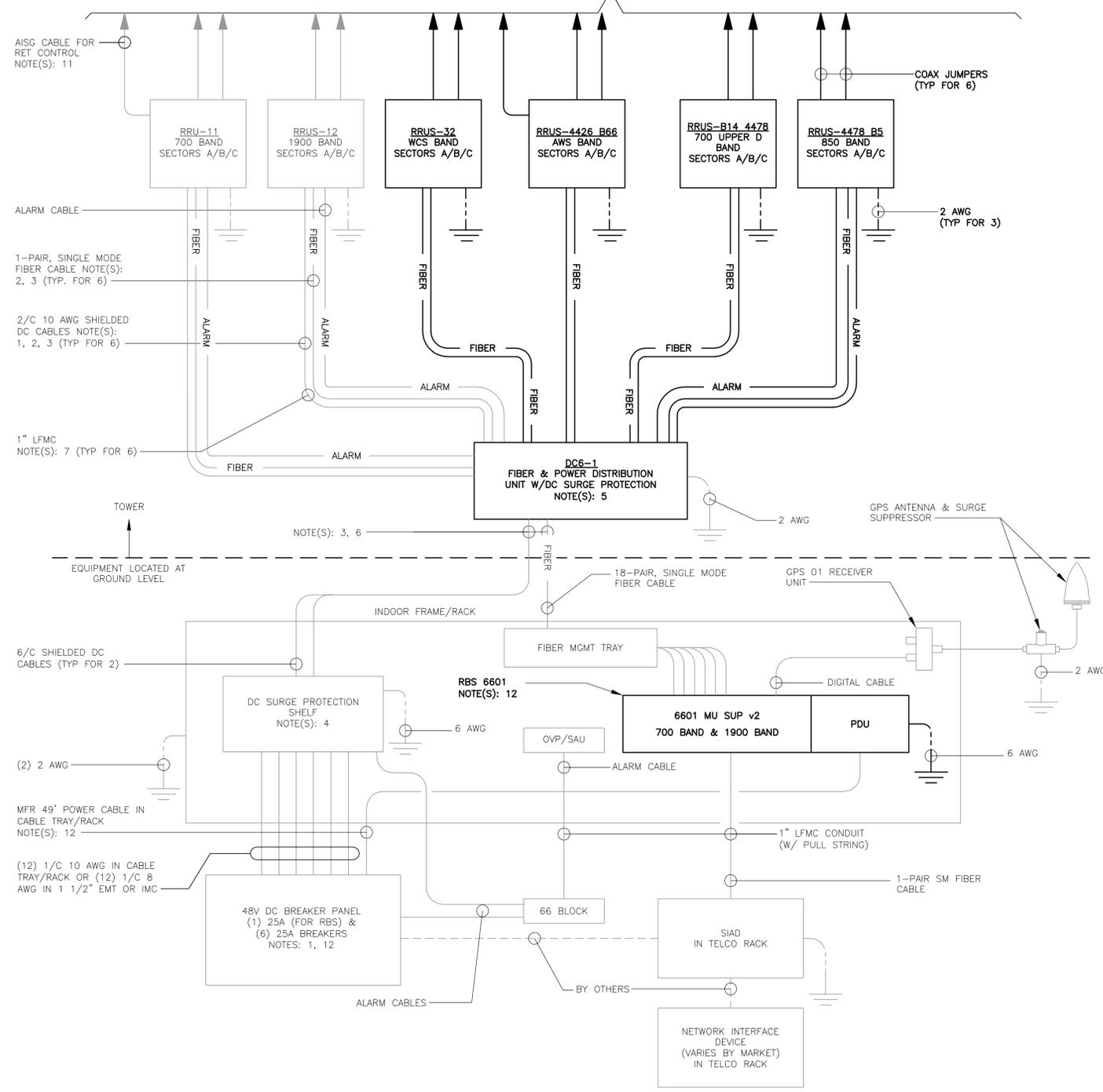


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FAIRFIELD, CT 06824

DATE: 08/27/18  
SCALE: AS NOTED  
JOB NO. 18000.61

DETAILS



**1 SCHEMATIC DIAGRAM**  
E-1 NOT TO SCALE

**SCHEMATIC DIAGRAM NOTES:**

- BREAKERS TO BE TAGGED AND LOCKED OUT. A 20A (MIN.) OR 30A (MAX.) BREAKER FOR RRUS MAY BE SUBSTITUTED FOR THE RECOMMENDED 25A BREAKER. SIZE 12 CONDUCTORS MAY BE USED ONLY WITH 20A BREAKERS.
- LEAVE COILED AND PROTECTED UNTIL TERMINATED.
- DC AND FIBER CABLE SHALL BE ROUTED WITH THE EXISTING COAX CABLE.
- DC SURGE PROTECTION SHELF SHALL BE RAYCAP DCx-48-60-RM.
- FIBER & DC DISTRIBUTION BOX W/DC SURGE PROTECTION SHALL BE RAYCAP DC6-48-60-18-BF.
- SUPPORT FIBER & DC POWER CABLES WITH SNAP-IN HANGERS SPACED NO GREATER THAN 3 FEET APART ON TOWER. SUPPORT FIBER AND DC POWER CABLES INSIDE MONOPOLE WITH CABLE HOISTING GRIPS AT 250 FT MAXIMUM INTERVALS. DRESS CABLES TO PREVENT CONTACT WITH ENTRANCE AND EXIT OPENINGS.
- CONDUIT TO BE USED ON A TOWER IF THE RRU IS MORE THAN 10' FROM THE DISTRIBUTION UNITS. MAX CABLE LENGTH IS 16 FEET.
- SINGLE-CONDUCTOR DC POWER CABLES SHALL BE TELCOFLEX® OR KS24194", COPPER, UL LISTED RHH NON-HALOGEN, LOW SMOKE WITH BRAIDED COVER, TYPE TC (1/0 AND LARGER). UNLESS OTHERWISE NOTED, STRANDING SHALL BE CLASS B (TYPE III) FOR CABLES SIZES 14, 12 & 10 AWG AND CLASS I (TYPE IV) FOR SIZES 8 AWG AND LARGER. CABLES SHALL BE COLOR CODED RED FOR +24V, BLUE FOR -48V AND GRAY FOR 24V AND 48V RETURN CONDUCTORS. MULTI-CONDUCTOR DC POWER CABLES SHALL BE COPPER, CLASS B STRANDING WITH FLAME RETARDANT PVC JACKET, TYPE TC, UL LISTED FOR 90°C DRY/75°C WET INSTALLATION.
- GROUNDING WIRES SHALL BE COPPER, GREEN THHN/THWN UL LISTED FOR 90°C DRY/75°C WET INSTALLATION. MINIMUM SIZE IS 6 AWG UNLESS NOTED OTHERWISE.
- FIBER OPTIC CABLES SHALL BE INSTALLED IN FLEXIBLE CONDUIT AS SCOPED BY MARKET.
- RET CONTROL FROM THE RRU IS AN OPTIONAL METHOD OF CONNECTION. REFER TO RF DATA SHEET FOR APPLICABILITY.
- RBS 6601 VARIANT 2 REQUIRES A 25A BREAKER AND 10 AWG (MIN.) CONDUCTORS. REPLACE EXISTING 15A OR 20A BREAKERS AND 12 AWG CONDUCTORS WHEN UPGRADING AN EXISTING RBS 6601 VARIANT 1.

**ELECTRICAL NOTES**

- PRIOR TO START OF CONSTRUCTION CONTRACTOR SHALL COORDINATE WITH OWNER FOR ALL CONSTRUCTION STANDARDS AND SPECIFICATIONS, AND ALL MANUFACTURER DOCUMENTATION FOR ALL EQUIPMENT TO BE INSTALLED.
- INSTALL ALL EQUIPMENT IN ACCORDANCE WITH LOCAL BUILDING CODE, NATIONAL ELECTRIC CODE, OWNER AND MANUFACTURER'S SPECIFICATIONS.
- CONNECT ALL NEW EQUIPMENT TO EXISTING TELCO AS REQUIRED BY MANUFACTURER.
- MAINTAIN ALL CLEARANCES REQUIRED BY NEC AND EQUIPMENT MANUFACTURER.
- PRIOR TO INSTALLATION CONTRACTOR SHALL MEASURE EXISTING ELECTRICAL LOAD AND VERIFY EXISTING AVAILABLE CAPACITY FOR PROPOSED INSTALLATION. IF INADEQUATE CAPACITY IS AVAILABLE, CONTRACTOR SHALL COORDINATE WITH LOCAL ELECTRIC UTILITY COMPANY TO UPGRADE EXISTING ELECTRIC SERVICE.
- CONTRACTOR SHALL INSPECT EXISTING GROUNDING AND LIGHTNING PROTECTION SYSTEM AND ENSURE THAT IT IS IN COMPLIANCE WITH NEC, AND SITE OWNER'S SPECIFICATIONS. THE RESULTS OF THIS INSPECTION SHALL BE PRESENTED TO OWNERS REPRESENTATIVE, AND ANY DEFICIENCIES SHALL BE CORRECTED.
- ALL TRANSMISSION TOWER SITES CONTAIN AN EXTENSIVE BURIED GROUNDING SYSTEM. ALL GROUNDING WORK MUST BE COORDINATED WITH, AND APPROVED BY, THE TOWER OWNER'S SITE REPRESENTATIVE. ALL OF THE TOWER OWNER'S SPECIFICATIONS MUST BE STRICTLY FOLLOWED.
- PROVIDE AND INSTALL GROUND KITS FOR ALL NEW COAXIAL CABLES AND BOND TO EXISTING OWNERS GROUNDING SYSTEM PER OWNERS SPECIFICATIONS AND NEC.
- ALL CONDUCTORS SHALL BE TYPE THWN (INT. APPLICATION) AND XHHW (EXT. APPLICATION), 75 DEGREE C, 600 VOLT INSULATION, SOFT ANNEALED STRANDED COPPER. #10 AWG AND SMALLER SHALL BE SPLICED USING ACCEPTABLE SOLDERLESS PRESSURE CONNECTORS. #8 AWG AND LARGER SHALL BE SPLICED USING COMPRESSION SPLIT-BOLT TYPE CONNECTORS. #12 AWG SHALL BE THE MINIMUM SIZE CONDUCTOR FOR LINE VOLTAGE BRANCH CIRCUITS. REFER TO PANEL SCHEDULE FOR BRANCH CIRCUIT CONDUCTOR SIZE(S). CONDUCTORS SHALL BE COLOR CODED FOR CONSISTENT PHASE IDENTIFICATION.
- MINIMUM BENDING RADIUS FOR CONDUCTORS SHALL BE 12 TIMES THE LARGEST DIAMETER OF BRANCH CIRCUIT CONDUCTOR.
- THE ENTIRE ELECTRICAL INSTALLATION SHALL BE MADE IN STRICT ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES AND REGULATIONS WHICH MAY APPLY AND NOTHING IN THE DRAWINGS OR SPECIFICATIONS SHALL BE INTERPRETED AS AN INFRINGEMENT OF SUCH CODES OR REGULATIONS.
- THE ELECTRICAL CONTRACTOR IS TO BE RESPONSIBLE FOR THE COMPLETE INSTALLATION AND COORDINATION OF THE ENTIRE ELECTRICAL SERVICE. ALL ACTIVITIES TO BE COORDINATED THROUGH OWNER'S REPRESENTATIVE, DESIGN ENGINEER AND OTHER AUTHORITIES HAVING JURISDICTION OF TRADES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND PAY ALL FEES AS MAY BE REQUIRED FOR THE ELECTRICAL WORK AND FOR SCHEDULING OF ALL INSPECTIONS AS MAY BE REQUIRED BY THE LOCAL AUTHORITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE SITE AND/OR BUILDING OWNER FOR NEW AND/OR DEMOLITION WORK INVOLVED.
- THE CONTRACTOR SHALL GUARANTEE ALL NEW WORK FOR A PERIOD OF ONE YEAR FROM THE ACCEPTANCE DATE BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WARRANTIES FROM ALL EQUIPMENT MANUFACTURERS FOR SUBMISSION TO THE OWNER.
- DRAWINGS INDICATE GENERAL ARRANGEMENT OF WORK INCLUDED IN CONTRACT. CONTRACTOR SHALL WITHOUT EXTRA CHARGE, MAKE MODIFICATIONS TO THE LAYOUT OF THE WORK TO PREVENT CONFLICT WITH WORK OF OTHER TRADES AND FOR THE PROPER INSTALLATION OF WORK. CHECK ALL DRAWINGS AND VISIT JOB SITE TO VERIFY SPACE AND TYPE OF EXISTING CONDITIONS IN WHICH WORK WILL BE DONE, PRIOR TO SUBMITTAL OF BID.
- ALL NON-CURRENT CARRYING PARTS OF THE ELECTRICAL AND TELEPHONE CONDUIT SYSTEMS SHALL BE MECHANICALLY AND ELECTRICALLY CONNECTED TO PROVIDE AN INDEPENDENT RETURN PATH TO THE EQUIPMENT GROUNDING SOURCES.
- GROUNDING SYSTEM WILL BE IN ACCORDANCE WITH THE LATEST ACCEPTABLE EDITION OF THE NATIONAL ELECTRICAL CODE AND REQUIREMENTS PER LOCAL INSPECTOR HAVING JURISDICTION.
- EACH EQUIPMENT GROUND CONDUCTOR SHALL BE SIZED IN ACCORDANCE WITH THE N.E.C. ARTICLE 250-122. (MIN. #12 AWG).
- CONTRACTOR SHALL PROVIDE A CELLULAR GROUNDING SYSTEM WITH THE MAXIMUM AC RESISTANCE TO GROUND OF 5 OHM BETWEEN ANY POINT ON THE GROUNDING SYSTEM AS MEASURED BY 3-POINT GROUNDING TEST. (REFER TO SECTION 16960).

**TESTS BY INDEPENDENT ELECTRICAL TESTING FIRM**

- CONTRACTOR SHALL RETAIN THE SERVICES OF A LOCAL INDEPENDENT ELECTRICAL TESTING FIRM (WITH MINIMUM 5 YEARS COMMERCIAL EXPERIENCE IN THE ELECTRICAL TESTING INDUSTRY) AS SPECIFIED BY OWNER TO PERFORM:
 

TEST 1: RESISTANCE TO GROUND TEST ON THE CELLULAR GROUNDING SYSTEM.

THE TESTING FIRM SHALL INCLUDE THE FOLLOWING INFORMATION WITH THE REPORT:

  - TESTING PROCEDURE INCLUDING THE MAKE AND MODEL OF TEST EQUIPMENT.
  - CERTIFICATION OF TESTING EQUIPMENT CALIBRATION WITHIN SIX (6) MONTHS OF DATE OF TESTING. INCLUDE CERTIFICATION LAB ADDRESS AND TELEPHONE NUMBER.
  - GRAPHICAL DESCRIPTION OF TESTING METHOD ACTUALLY IMPLEMENTED.

- TESTING SHALL BE PERFORMED IN THE PRESENCE AND TO THE SATISFACTION OF OWNERS CONSTRUCTION REPRESENTATIVE. TESTING DATA SHALL BE INITIALED AND DATED BY THE CONSTRUCTION AND INCLUDED WITH THE WRITTEN REPORT/ANALYSIS.
- THE CONTRACTOR SHALL FORWARD SIX (6) COPIES OF THE INDEPENDENT ELECTRICAL TESTING FIRM REPORT/ANALYSIS TO ENGINEER A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO THE JOB TURNOVER.
- CONTRACTOR TO PROVIDE A MINIMUM OF ONE (1) WEEK NOTICE TO OWNER AND ENGINEER FOR ALL TESTS REQUIRING WITNESSING.

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
1	3/6/19	TJL	CAG	CONSTRUCTION DRAWINGS - REVISED CODE REFERENCE
0	10/17/18	DMD	CAG	CONSTRUCTION DRAWINGS



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SCHEMATIC  
DIAGRAM  
AND NOTES

**E-1**  
Sheet No. 6 of 8



