



**MASER CONSULTING**  
— CONNECTICUT —

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February 25, 2016

Rich Wagner  
Smartlink LLC  
1362 Mellon Road, Suite 140  
Hanover, MD 21076

**Re: Structural Evaluation, Revision 1**  
**AT&T: Site CTL01330**  
**FA #10141394**  
**324 Montevideo Road**  
**Avon, Connecticut 06001**  
**Maser Consulting Project #: 15946012A**

Dear Mr. Wagner,

As per your request, Maser Consulting Connecticut has performed a limited structural evaluation of the above referenced AT&T telecommunication facility with regard to its ability to adequately support the proposed upgrade equipment.

The following references were utilized in completing this evaluation:

- As-Built Construction drawings prepared by Centek Engineering, dated August 7, 2015.
- Structural Analysis prepared by Centek Engineering, dated June 2, 2015
- RFDS ID 741080, provided by Smartlink, dated 6/23/2015, LTE 3C scope of work
- Limited Visual Site Visit performed by Maser Consulting Connecticut on September 30, 2015
- As-built RFDS by Eastern Communications, Inc., provided by Smartlink, dated April 2, 2014

The existing AT&T Telecommunications facility will be upgraded with the following proposed equipment:

- At each sector replace existing SBNH-1D6565C Antenna (96.4"x11.9"x7.1") with proposed OPA-65R-LCUU-H8 Antenna (92.7"x14.4"x7") on existing mount (3 total).
- Remove (1) existing RRUS-11 radio head and install (1) proposed RRUS-32 radio head on unistrut frame mounted to the existing antenna mast behind each antenna at each sector (3 Total of each).

The location and mounting of the equipment will be on mounts in kind to those existing and in locations depicted on the Maser Consulting Connecticut Construction drawings completed for the scope of work indicated in the above referenced RFDS.

The existing structure consists of a SST with an existing 18' diameter Doppler Radar Dome at the top. The existing AT&T antenna array is installed inside the existing Radar dome. Based on a review of the existing documents referenced above the previous upgrade loading was accounted for in the existing structural analysis. The proposed antennas are similar in weight and size as the existing antennas, and are located entirely inside the existing radar dome. There will be no additional wind or ice loads as a result of the proposed upgrades.



**Based on this comparison the existing SST has adequate capacity to support the proposed configuration as described herein.**

- This evaluation was based on the following limitations and assumptions:
  1. It is assumed that the telecommunication equipment supports, antenna supports, and existing structure have been designed by a registered licensed professional engineer for the existing loads acting on the structure, as required by all applicable codes, prior to the proposed modifications listed within this report.
  2. It is assumed that information provided by the client regarding the structure itself, the antenna models, feed lines, and other relevant information is current and correct.
  3. It is assumed all other existing appurtenances, antennas, cables, etc. belonging to others have been installed and supported per code and per specifications so as not to damage any existing structural support members, and that any contributing loads from adjacent equipment has been taken into consideration for their design.
  4. Proposed equipment and locations should not deviate from the proposed locations noted herein and shown on the associated Maser Consulting Connecticut final Construction Drawings.

The proposed changes to the equipment loading, described in this report, are based solely on the information contained within the above referenced documents and described herein. Any changes to the proposed equipment will invalidate these recommendations and will require further review. Should you have any questions please contact me at 973-398-3110.

Sincerely,  
Maser Consulting Connecticut



Frank E. Pazden, P.E.  
CT REGISTERED PROFESSIONAL ENGINEER  
Geographic Discipline Leader



**SITE NAME: AVON - MONTEVIDEO ROAD**  
**FA NUMBER: 10141394**  
**SITE NUMBER: CTL01330**

**324 MONTEVIDEO ROAD**  
**AVON, CT 06001**  
**COUNTY: HARTFORD**



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NEW CINGULAR WIRELESS PCS, LLC  
 550 COCHITUATE ROAD  
 FRAMINGHAM, MA 01701



SCALE: AS SHOWN JOB NUMBER: 15946012A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
2	02/15/16	REVISED PER SMARTLINK'S COMMENTS	JRF	FEP
1	12/15/15	REVISED PER SMARTLINK'S COMMENTS	RAPSHG	FEP
0	10/29/15	ISSUED FOR REVIEW	DTS	FEP



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

**SITE NAME:**  
**AVON - MONTEVIDEO ROAD**  
**FA# 10141394**  
**SITE # CTL01330**  
**324 MONTEVIDEO ROAD**  
**AVON, CT 06001**  
**COUNTY OF HARTFORD**



SHEET TITLE: **TITLE SHEET**  
 SHEET NUMBER: **T-1**

PROJECT TEAM	
<b>CLIENT REPRESENTATIVE</b>	
COMPANY:	SMARTLINK, LLC
ADDRESS:	1362 MELLON ROAD, SUITE 140
CITY, STATE, ZIP:	HANOVER, MD 21076
CONTACT:	RICH WAGNER
E-MAIL:	RWAGNER@SMARTLINKLLC.COM
<b>SITE ACQUISITION</b>	
COMPANY:	SMARTLINK, LLC
ADDRESS:	33 BOSTON POST ROAD WEST, SUITE 210
CITY, STATE, ZIP:	MARLBOROUGH, MA 01752
CONTACT:	TODD OLIVER
PHONE:	(774) 369-3618
E-MAIL:	TODD.OLIVER@SMARTLINKLLC.COM
<b>ENGINEER</b>	
COMPANY:	MASER CONSULTING P.A.
ADDRESS:	331 NEWMAN SPRINGS RD, SUITE 203
CITY, STATE, ZIP:	RED BANK, NJ 07701-5699
CONTACT:	FRANK PAZDEN
PHONE:	(973) 398-3110 x4505
E-MAIL:	FPAZDEN@MASERCONSULTING.COM
<b>RF ENGINEER</b>	
COMPANY:	NEW CINGULAR WIRELESS PCS, LLC
ADDRESS:	550 COCHITUATE RD.
CITY, STATE, ZIP:	FRAMINGHAM, MA 01701
CONTACT:	CAMERON SYME
E-MAIL:	CS6970@ATT.COM
<b>CONSTRUCTION MANAGER</b>	
COMPANY:	SMARTLINK, LLC
ADDRESS:	33 BOSTON POST ROAD WEST, SUITE 210
CITY, STATE, ZIP:	MARLBOROUGH, MA 01752
CONTACT:	MARK DONNELLY
PHONE:	(617) 515-2080
E-MAIL:	MARK.DONNELLY@SMARTLINKLLC.COM

SITE INFORMATION	
<b>APPLICANT/LESSEE</b>	
NEW CINGULAR WIRELESS PCS, LLC 550 COCHITUATE RD. FRAMINGHAM, MA 01701	
<b>PROPERTY/TOWER OWNER:</b>	
NAME:	THE TALCOTT MOUNTAIN SCIENCE CENTER FOR STUDENT INVOLVEMENT, INC.
ADDRESS:	324 MONTEVIDEO ROAD
CITY, STATE, ZIP:	AVON, CT 06001
LATITUDE:	41.811797° N
LONGITUDE:	72.798767° W
LAT./LONG. TYPE:	NAD 83
AREA OF CONSTRUCTION:	EXISTING EQUIPMENT SHELTER AND LATTICE TOWER WITH DOPPLER RADAR DOME
ZONING/JURISDICTION:	TOWN OF AVON
CURRENT USE/PROPOSED USE:	UNMANNED TELECOMMUNICATIONS FACILITY
HANDICAP REQUIREMENTS:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED.
CONSTRUCTION TYPE:	IIB
USE GROUP:	U



CODE COMPLIANCE	
ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING CODES.	
1. CONNECTICUT STATE BUILDING CODE (2005) & ALL SUBSEQUENT AMENDMENTS	6. AMERICAN INSTITUTE OF STEEL CONSTRUCTION 14 ED.
2. NATIONAL ELECTRIC CODE 2011	7. EIA/TIA-222 REVISION F
3. NATIONAL FIRE PROTECTION ASSOCIATION 70 - 2011	8. TIA 607 FOR GROUNDING
4. LIGHTNING PROTECTION CODE 2011	9. INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS 81
5. AMERICAN CONCRETE INSTITUTE 318	10. IEEE C2 LATEST EDITION
	11. TELCORDIA GR-1275 I2, ANSI T1.311

GENERAL CONTRACTOR NOTES	
<b>DO NOT SCALE DRAWINGS</b>	
CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.	

GENERAL NOTES	
THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.	


SHEET	DESCRIPTION
T-1	TITLE SHEET
GN-1	GENERAL NOTES
A-1	COMPOUND PLAN AND EQUIPMENT PLAN
A-2	ELEVATION VIEW AND ANTENNA SCHEDULE
A-3	ANTENNA LAYOUTS
A-4	DETAILS
A-5	RF PLUMBING DIAGRAMS
G-1	GROUNDING DETAILS

PROJECT DESCRIPTION/SCOPE OF WORK	
LTE WCS WILL BE 3C AT THE SITE WITH BRONZE STANDARD CONFIGURATION.	
PROPOSED PROJECT SCOPE HEREIN BASED ON RFDS ID# 741080, VERSION 1.00 LAST UPDATED 06/23/15.	
THIS PROJECT WILL BE COMPRISED OF:	
<ul style="list-style-type: none"> <li>REMOVE (3) EXISTING LTE ANTENNAS AT POSITION 3 AND REPLACE WITH (3) NEW LTE ANTENNAS AT POSITION 2, (1) PER SECTOR</li> <li>ADD (3) RRUS-32 FOR LTE WCS ANTENNA, (1) PER SECTOR</li> <li>REMOVE (3) EXISTING RRUS-11, (1) PER SECTOR</li> <li>ADD RS03-XMU03 HARDWARE TO LTE 6601 CHASSIS</li> </ul>	

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
3. 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 50 HNS OR LESS.
4. 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.
5. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
6. 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.
7. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE EQUIPMENT GROUND RING WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS; 2 AWG STRANDED COPPER FOR OUTDOOR BTS.
8. 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.
9. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING, SHALL BE #2 AWG SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
10. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
11. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED. ALL BENDS SHALL BE MADE WITH 12" RADIUS OR LARGER.
12. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
13. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS EXCEPT FOR GROUND BAR CONNECTION FROM MGB TO OUTSIDE EXTERIOR GROUND SHALL ALL BE CADWELD CONNECTIONS.
14. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
15. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED TO THE TOWER GROUND BAR.
16. APPROVED ANTIOXIDANT COATINGS (I.E. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
17. ALL EXTERIOR AND INTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
18. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
19. BOND ALL METALLIC OBJECTS WITHIN 6 FT OF MAIN GROUND WIRES WITH 1-#2 AWG TIN-PLATED COPPER GROUND CONDUCTOR.
20. 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, NON-METALLIC 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.
21. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/4" IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50.

- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
- CONTRACTOR – SMARTLINK  
SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)  
OWNER – AT&T (NEW CINGULAR WIRELESS PCS, LLC)
2. ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
  3. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
  4. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
  5. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
  6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
  7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
  8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
  9. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
  10. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
  11. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE RESPONSIBLE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING & EXCAVATION.
  12. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
  13. THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY SHALL BE GRADED TO A UNIFORM SLOPE AND STABILIZED TO PREVENT EROSION.
  14. SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
  15. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
  16. THE SUBGRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
  17. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
  18. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
  19. THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE.

20. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
21. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR.
22. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
23. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.
24. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS.
25. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
26. CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T MOBILITY SITES."
27. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
28. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION, ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
29. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN ALERT OF DANGEROUS EXPOSURE LEVELS.



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NEW CINGULAR WIRELESS PCS, LLC  
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FRAMINGHAM, MA 01701



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SCALE:	AS SHOWN	JOB NUMBER:	15946012A
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0	10/29/15	ISSUED FOR REVIEW	DTS	FEP



FRANK J. MONTEVIDEO  
CONNECTICUT PROFESSIONAL ENGINEER - LICENSE NUMBER: PEN 28188

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**SITE # CTL01330**  
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**COUNTY OF HARTFORD**



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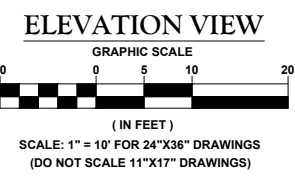
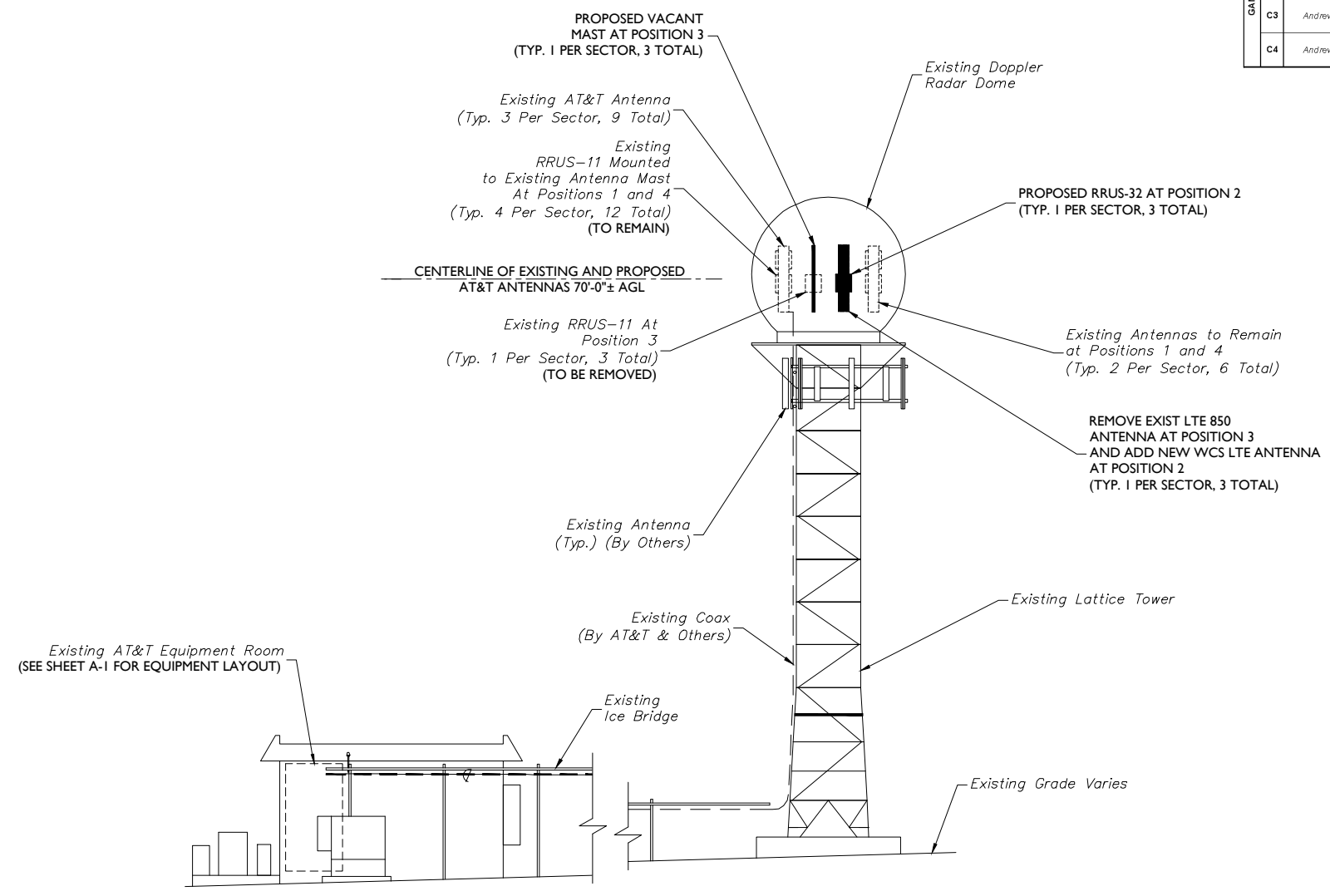
SHEET TITLE:  
**GENERAL NOTES**

SHEET NUMBER:  
**GN-1**



PROPOSED ANTENNA AND RRUS CONFIGURATION													
SECTOR	EXISTING ANTENNA CONFIGURATION	PROPOSED ANTENNA CONFIGURATION	TECHNOLOGY	ANTENNA STATUS	HEIGHT (ft)	WIDTH (ft)	DEPTH (ft)	WEIGHT (lbs)	ANTENNA AZIMUTH	ANT. CL. ELEV. (ft)	RRUS CONFIGURATION	STATUS	
ALPHA	A1	Andrew SBNH-1D6565C	Andrew SBNH-1D6565C	UMTS	REMAIN	96.40	11.90	7.10	60.80	90°	70'	(2) RRUS-11	REMAIN
	A2	VACANT MAST	CCI OPA-65R-LCUU-H8	LTE WCS	NEW	92.70	14.40	7.00	88.00	90°	70'	RRUS-32	NEW
	A3	Andrew SBNH-1D6565C	VACANT MAST	-	REMOVE	-	-	-	-	-	-	RRUS-11	REMOVE
	A4	Andrew SBNH-1D6565C	Andrew SBNH-1D6565C	LTE 700/1900	REMAIN	96.40	11.90	7.10	60.80	90°	70'	(2) RRUS-11	REMAIN
BETA	B1	Andrew SBNH-1D6565C	Andrew SBNH-1D6565C	UMTS	REMAIN	96.40	11.90	7.10	60.80	210°	70'	(2) RRUS-11	REMAIN
	B2	VACANT MAST	CCI OPA-65R-LCUU-H8	LTE WCS	NEW	92.70	14.40	7.00	88.00	210°	70'	RRUS-32	NEW
	B3	Andrew SBNH-1D6565C	VACANT MAST	-	REMOVE	-	-	-	-	-	-	RRUS-11	REMOVE
	B4	Andrew SBNH-1D6565C	Andrew SBNH-1D6565C	LTE 700/1900	REMAIN	96.40	11.90	7.10	60.80	210°	70'	(2) RRUS-11	REMAIN
GAMMA	C1	Andrew SBNH-1D6565C	Andrew SBNH-1D6565C	UMTS	REMAIN	96.40	11.90	7.10	60.80	330°	70'	(2) RRUS-11	REMAIN
	C2	VACANT MAST	CCI OPA-65R-LCUU-H8	LTE WCS	NEW	92.70	14.40	7.00	88.00	330°	70'	RRUS-32	NEW
	C3	Andrew SBNH-1D6565C	VACANT MAST	-	REMOVE	-	-	-	-	-	-	RRUS-11	REMOVE
	C4	Andrew SBNH-1D6565C	Andrew SBNH-1D6565C	LTE 700/1900	REMAIN	96.40	11.90	7.10	60.80	330°	70'	(2) RRUS-11	REMAIN

**ANTENNA SCHEDULE**



**STRUCTURAL NOTES:**

- NO CONSTRUCTION OF THE PROPOSED LOADING SHOWN SHALL PROCEED UNTIL ADEQUACY OF THE EXISTING STRUCTURE AND FOUNDATION, INCLUDING THE PROPOSED AT&T ANTENNA MOUNTING CONFIGURATION SHOWN HEREIN, HAS BEEN COMPLETED.
- THE STRUCTURE ELEVATION IS SHOWN FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REFLECT AS-BUILT FIELD CONDITIONS FOR ALL EXISTING INVENTORY LOADING/ANTENNAS/APURTANANCES ON STRUCTURE. REFER TO THE LATEST STRUCTURAL ANALYSIS FOR EXISTING STRUCTURE LOADING AND THE PROPOSED METHOD OF ATTACHMENT OF THE PROPOSED ANTENNAS/CABLES.
- THE CONTRACTOR IS RESPONSIBLE TO CONFIRM THAT ANY IMPROVEMENTS AND REINFORCEMENTS REQUIRED BY THE STRUCTURAL ANALYSIS CERTIFICATION ARE PROPERLY INSTALLED PRIOR TO THE ADDITION OF ANTENNAS, CABLES, SUPPORTS AND APPURTANANCES PROPOSED ON THESE DRAWINGS OR OTHERWISE NOTED IN THE STRUCTURAL ANALYSIS.

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SCALE:	JOB NUMBER:			
AS SHOWN	15946012A			
REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
2	02/15/16	REVISED PER SMARTLINK'S COMMENTS	JRF	FEP
1	12/15/15	REVISED PER SMARTLINK'S COMMENTS	RAPSHG	FEP
0	10/29/15	ISSUED FOR REVIEW	DTS	FEP

FRANKLIN W. DEN  
CONNECTICUT PROFESSIONAL ENGINEER - LICENSE NUMBER: PEN 28188

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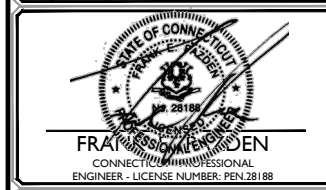
RED BANK OFFICE  
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email: solutions@maserconsulting.com

SHEET TITLE:  
**ELEVATION VIEW AND ANTENNA SCHEDULE**

SHEET NUMBER:  
**A-2**

SCALE:	JOB NUMBER:
AS SHOWN	15946012A

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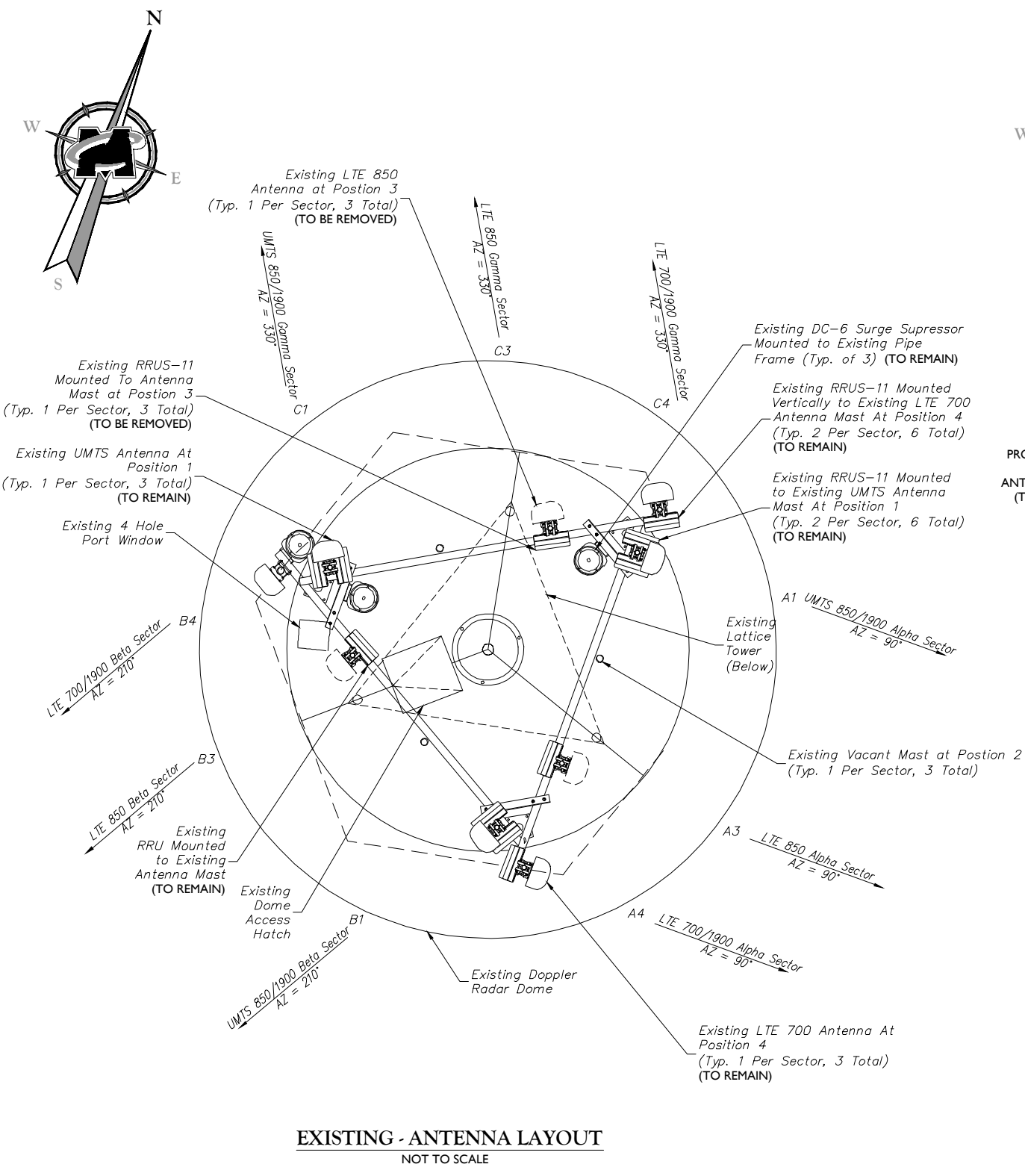
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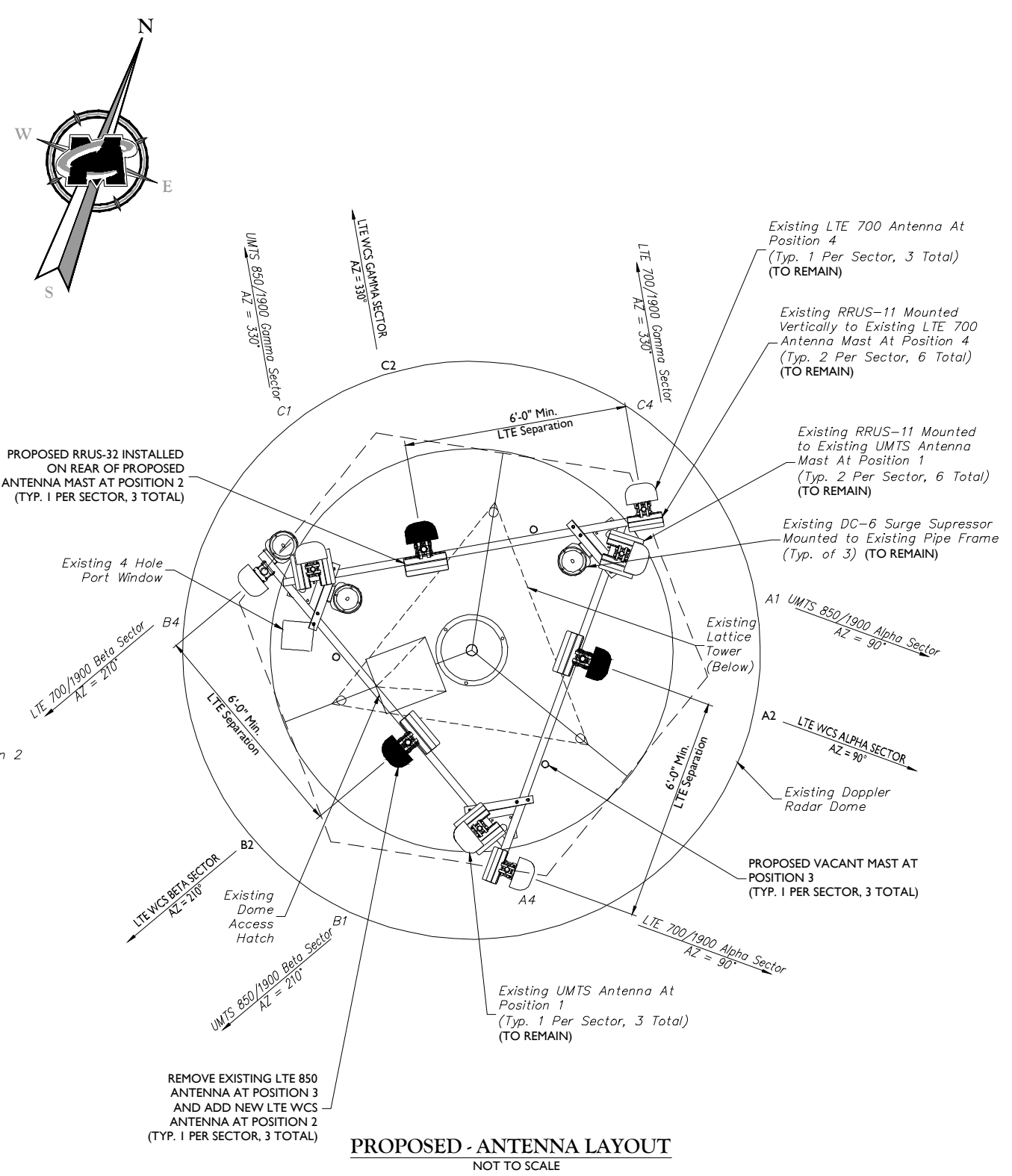
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SHEET TITLE:  
**ANTENNA LAYOUTS**

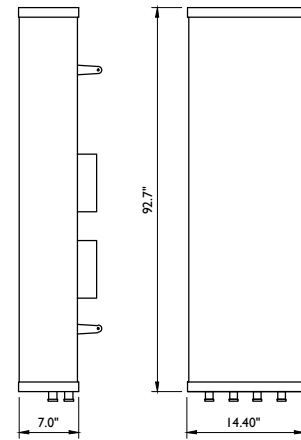
SHEET NUMBER:  
**A-3**



**NOTES:**  
EXISTING ANTENNA LAYOUT WITHIN EXISTING RF-TRANSPARENT DOME STRUCTURE BASED ON PHOTOS BY OTHERS, AS-BUILT DRAWINGS BY EASTERN COMMUNICATIONS DATED 4/2/14, AS-BUILT DRAWINGS BY BERKSHIRE WIRELESS DATED 8/7/15, AND REDLINED RFDS REV. 2 BY EASTERN COMMUNICATIONS DATED 4/2/14. THE BASIS FOR EACH AS-BUILT DRAWING WAS A CONSTRUCTION DRAWING SET PREPARED BY CENTEK ENGINEERING DATED 01/24/14.



**NOTES:**  
REMOVE EXISTING LTE 850 ANTENNA AT POSITION 3 AND ADD NEW LTE WCS ANTENNA AT POSITION 2 (TYP. 1 PER SECTOR, 3 TOTAL)  
PROPOSED RRUS-32 INSTALLED ON REAR OF PROPOSED ANTENNA MAST AT POSITION 2 (TYP. 1 PER SECTOR, 3 TOTAL)  
PROPOSED VACANT MAST AT POSITION 3 (TYP. 1 PER SECTOR, 3 TOTAL)

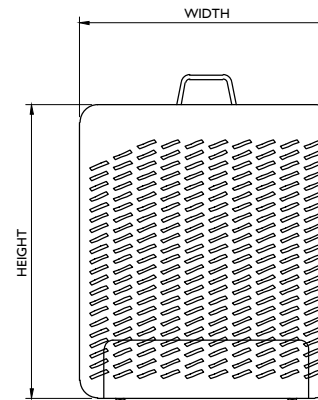


WEIGHT = 88 LBS

CCI OPA-65R-LCUU-H8

**ANTENNA DETAIL**

NOT TO SCALE



RRUS FRONT VIEW

SIZE AND WEIGHT TABLE

RRUS	WIDTH	DEPTH	HEIGHT	WEIGHT W/O BRACKET
RRUS-32 4X40-1900 (WITH SOLAR SHIELD)	-	-	-	-
RRUS-32 4X40-1900 (WITHOUT SOLAR SHIELD)	11.5"	6.4"	23.1"	50.7

MINIMUM CLEARANCE TABLE

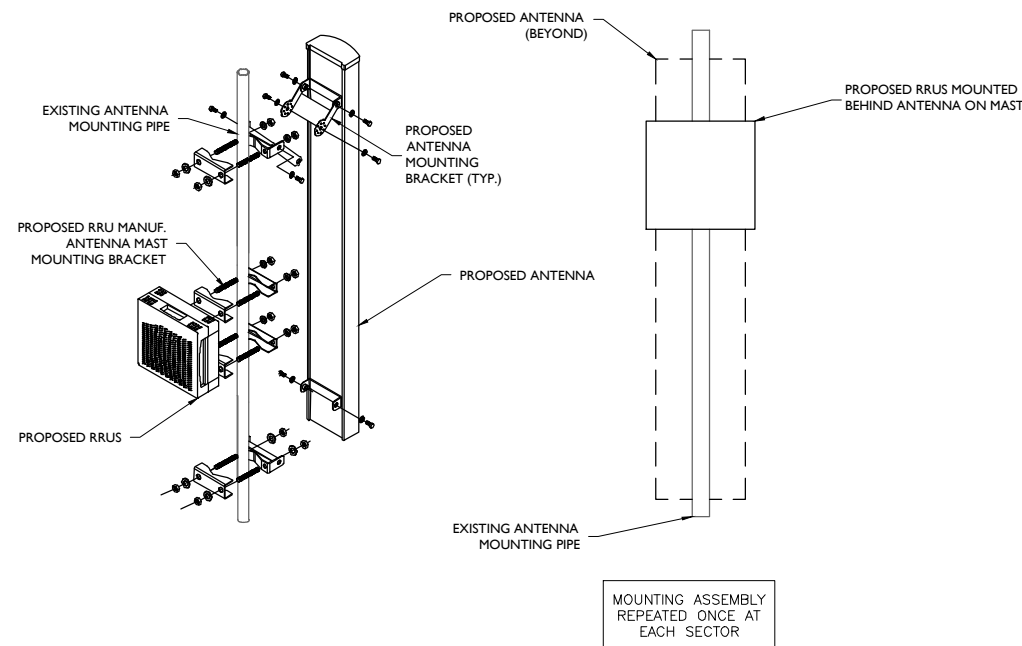
RRUS CABINET	CLEARANCES (INCHES)	COMMENTS
FRONT	36"	INSTALLATION ACCESS
REAR	2"	ZERO REAR CLEARANCE IS ALLOWED USING SUPPLIED MOUNTING BRACKETS
RIGHT	4"	AIR FLOW
LEFT	4"	AIR FLOW
TOP	12"	AIR FLOW
BOTTOM	12"	CONDUIT ROUTING

NOTE:

USE 1/2" COAXIAL CABLE W/7/16 DIN MALE CONNECTORS ON BOTH ENDS.

**RRUS DETAIL**

NOT TO SCALE



**ANTENNA AND RRUS MOUNTING DETAILS**

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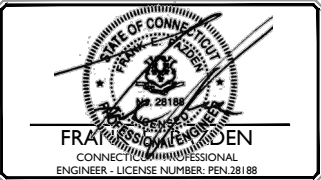
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**DETAILS**  
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