



August 8, 2016

Melanie A. Bachman
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Notice of Exempt Modification – Antenna Swap
Property Address: 244 Gates Rd Lebanon, CT 06429
Applicant: AT&T Mobility, LLC

Dear Ms. Bachman:

On behalf of AT&T, please accept this application as notification pursuant to R.C.S.A. §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. §16-50j-72(b) (2).

AT&T currently maintains a wireless telecommunications facility consisting of six (6) wireless telecommunication antennas at an antenna center line height of 121-feet on an existing 124 –self-support tower, owned American Tower Corporation located at 116 Huntington Ave. 11th Floor Boston, MA 02116. AT&T now intends to remove (3) Powerwave P65-17-XLH-RR panel antennas on position four, all sectors, while retaining three (3) Powerwave 7770 panel antennas on position (3) and (1) for, all sectors, install three (3) new CCI TPA-65R-LCUUUU-H8 position four, all sectors (for a total of (6) panel antennas), at the 121-foot level. AT&T also intends to install 3 RRU's with A-2 modules, 1 Raycap, 2 dc cables and one fiber.

This facility was unanimously acknowledged/approved by the Connecticut Siting Council on April 10, 1990 with conditions of "Option Two", the replacement of both of the existing 80- foot and 120-foot guyed SNET towers with one self-supporting 120- foot tower. This proposed modification is to be implemented as specified in a notice dated March 1, 1990. The building permit (No 0822) was issued by the town of Lebanon to SNET, ATTN: Mr. R. Archacki, 195 Church Street, New Haven, CT 06510.

Please accept this letter pursuant to Regulation of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b) (2). In accordance with R.C.S.A., a copy of this letter is being sent to Betsy Petrie, First Selectman of the town of Lebanon, Town of Lebanon, 579 Exeter Road Lebanon, CT 06249. A copy of this letter is also being sent to New Cingular Wireless (AT&T) PCS LLC at 909 Chestnut St 36-m-01 St Louis, MO 63101.

The following is a list of subsequent decisions by the Connecticut Siting Council:

EM-CING-071-081124- New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 244 Gates Road, **Lebanon**, Connecticut.

EM-CING-071-130124 – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 244 Gates Road, **Lebanon**, Connecticut.

EM-CING-071-140519 – **New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 244 Gates Road, Lebanon, Connecticut.**

The planned modifications to AT&T's facility fall squarely within those activities explicitly provided for in R.C.S.A. §16-50j-72(b) (2).

1. The proposed modifications will not result in an increase in the height of the existing tower. AT&T's replacement antennas will be installed at the 121-foot level of the 124-foot monopole.
2. The proposed modifications will not involve any changes to ground-mounted equipment and, therefore, will not require an extension of the site boundary.
3. The proposed modifications will not increase the noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the modified facility will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A cumulative worst-case RF emissions calculation for AT&T's modified facility is provided in the RF Emissions Compliance Report, included in Tab 2.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The tower and its foundation can support AT&T's proposed modifications. (See Structural Analysis Report included in Tab 3).

For the foregoing reasons, AT&T respectfully submits that the proposed modifications to the above referenced telecommunications facility constitutes an exempt modification under R.C.S.A. §16-50j-72(b) (2).

Sincerely,

David Barbagallo

Enclosures

CC w/enclosures:

| Betsy Petrie, First Selectman - Town of Lebanon
New Cingular Wireless (AT&T) PCS LLC -Land/Tower
owner



85 Range way Rd Bldg. #3 Suite 102 North Billerica | MA 01862-2105

StartAntennaData

It is advisable to provide an ID (ant 1) for all antennas

ID	Name	(MHz) Freq	Trans Power	Trans Count	Coax Len	Coax Type	Other Losses	Input Power
1	AT&T MOB	850	19.01054		1	0		19.01054
1	AT&T MOB	1900	15.95901		1	0		15.95901
2	AT&T MOB	850	10.61666		1	0		10.61666
3	AT&T MOB	737	65.01297		1	0		65.01297
3	AT&T MOB	1900	99.54054		1	0		99.54054
3	AT&T MOB	2100	101.8591		1	0		101.8591
4	AT&T MOB	850	19.01054		1	0		19.01054
4	AT&T MOB	1900	15.95901		1	0		15.95901
5	AT&T MOB	850	10.61666		1	0		10.61666
6	AT&T MOB	737	65.01297		1	0		65.01297
6	AT&T MOB	1900	99.54054		1	0		99.54054
6	AT&T MOB	2100	101.8591		1	0		101.8591
7	AT&T MOB	850	19.01054		1	0		19.01054
7	AT&T MOB	1900	18.32311		1	0		18.32311
8	AT&T MOB	850	5.32069		1	0		5.32069
9	AT&T MOB	737	65.01297		1	0		65.01297
9	AT&T MOB	1900	99.54054		1	0		99.54054
9	AT&T MOB	2100	101.8591		1	0		101.8591

StartSymbolData

Calc			(ft)	(ft)	(ft)		(ft)	dBd
Power	Mfg	Model	X	Y	Z	Type	Aper	Gain
	Powerwave	7770	141.9539	145.8118	121.7085	Panel	4.583	11.51
	Powerwave	7770	141.9539	145.8118	121.7085	Panel	4.583	13.41
	Powerwave	7770	141.9882	140.3028	121.7085	Panel	4.583	11.51
	CCI Antenn	TPA-65R-LC	138.0238	155.9932	120	Panel	8	13.56
	CCI Antenn	TPA-65R-LC	138.0238	155.9932	120	Panel	8	13.86
	CCI Antenn	TPA-65R-LC	138.0238	155.9932	120	Panel	8	13.96
	Powerwave	7770	126.2252	136.4538	121.7085	Panel	4.583	11.51
	Powerwave	7770	126.2252	136.4538	121.7085	Panel	4.583	13.41
	Powerwave	7770	123.8252	141.2538	121.7085	Panel	4.583	11.51
	CCI Antenn	TPA-65R-LC	132.2883	136.6534	120	Panel	8	13.56
	CCI Antenn	TPA-65R-LC	132.2883	136.6534	120	Panel	8	13.86
	CCI Antenn	TPA-65R-LC	132.2883	136.6534	120	Panel	8	13.96
	Powerwave	7770	122.4908	152.4284	121.7085	Panel	4.583	11.51
	Powerwave	7770	122.4908	152.4284	121.7085	Panel	4.583	13.41
	Powerwave	7770	132.5308	156.0284	121.7085	Panel	4.583	11.51
	CCI Antenn	TPA-65R-LC	122.2335	146.5597	120	Panel	8	13.56
	CCI Antenn	TPA-65R-LC	122.2335	146.5597	120	Panel	8	13.86
	CCI Antenn	TPA-65R-LC	122.2335	146.5597	120	Panel	8	13.96

BWdth	Uptime	ON
Pt Dir	Profile	flag
82;143	100%	ON•
86;143	100%	ON•
82;143	100%	ON•
61.9;40	100%	ON•
68.2;40	100%	ON•
65.2;40	100%	ON•
82;263	100%	ON•
86;263	100%	ON•
82;263	100%	ON•
61.9;160	100%	ON•
68.2;160	100%	ON•
65.2;160	100%	ON•
82;23	100%	ON•
86;23	100%	ON•
82;23	100%	ON•
61.9;270	100%	ON•
68.2;270	100%	ON•
65.2;270	100%	ON•

March 29, 2016

RE: **AT&T LTE 3C**
Prepared For: Smartlink / AT&T
Site Number: CTL01065
FA Location: 10035007
Site Name: LEBANON
Site Address: 244 Gates Road
Lebanon, CT 06249

To Whom It May Concern,

This structural assessment is in regards to the adequacy of the existing antenna mounting platform for the AT&T LTE 3C project. The purpose was to determine conformance of existing antenna mounting structure under 2003 International Building Code and the industry standard ANSI/TIA-222-F (Structural Standards for Steel Antenna Towers and Antenna Supporting Structures).

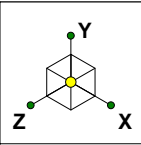
Based on collected information via a site visit dated 03/11/2016, technical data of the proposed equipment, structural calculations and engineering judgment, the existing antenna mounting platform is **adequate** to support the proposed installation for the above-referenced program. For installation details, see latest construction drawings prepared by Fullerton Engineering.

This PE certification completed by Fullerton Engineering Consultants is inclusive of the existing antenna mounting structure that will support the existing and proposed loading provided by the client.

This certification assumes that all the existing structural members of the existing antenna mounting structure are in good condition and have not been altered from the manufacturer's original design. Prior to installation of new equipment, contractor shall inspect the condition of all relevant members and connectors. The contractor shall be responsible for the means and methods of construction.

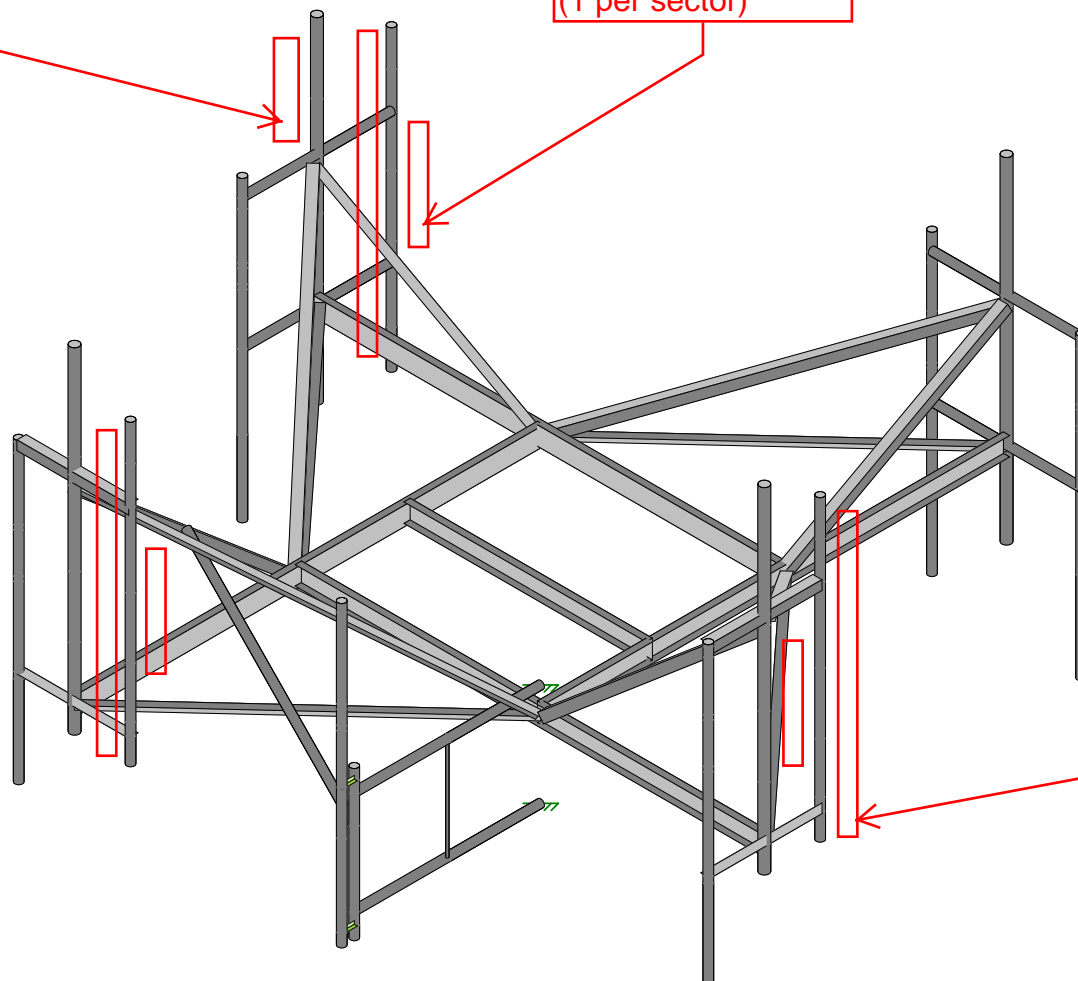
Respectfully,

Henry M. Bellagamba, P.E.



Proposed Raycap
(1 Total)

Proposed RRH Unit
(1 per sector)



Proposed Antenna
(1 per sector)

Envelope Only Solution

Fullerton Engineering Consultants, ...

GO

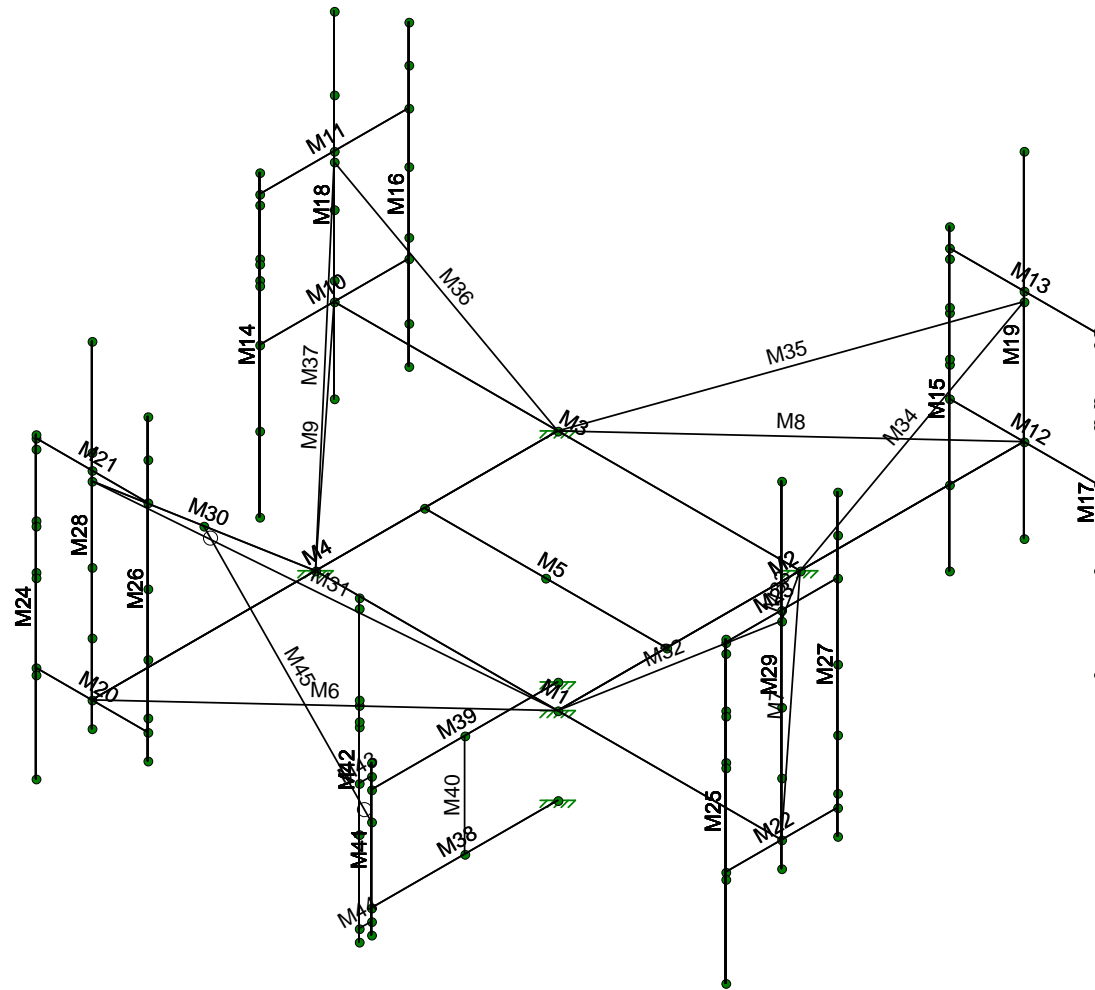
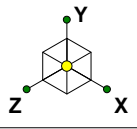
CTL01065

Mount Analysis
3D Render

SK - 1

Mar 29, 2016 at 2:22 PM

CTL01065 - Mount Analysis.r3d



Envelope Only Solution

Fullerton Engineering Consultants, ...

GO

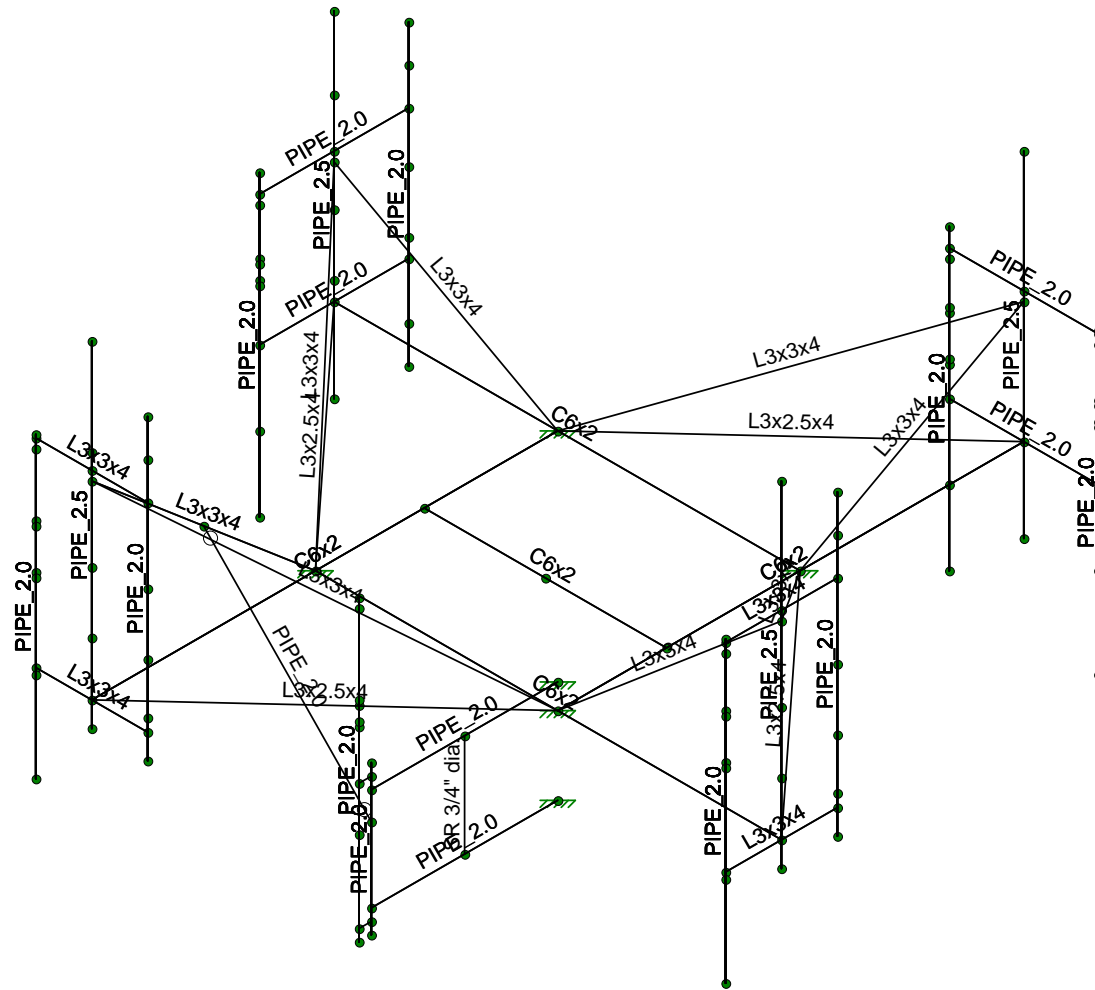
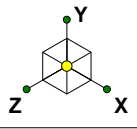
CTL01065

Mount Analysis
Member Label

SK - 2

Mar 29, 2016 at 2:27 PM

CTL01065 - Mount Analysis.r3d



Envelope Only Solution

Fullerton Engineering Consultants, ...

GO

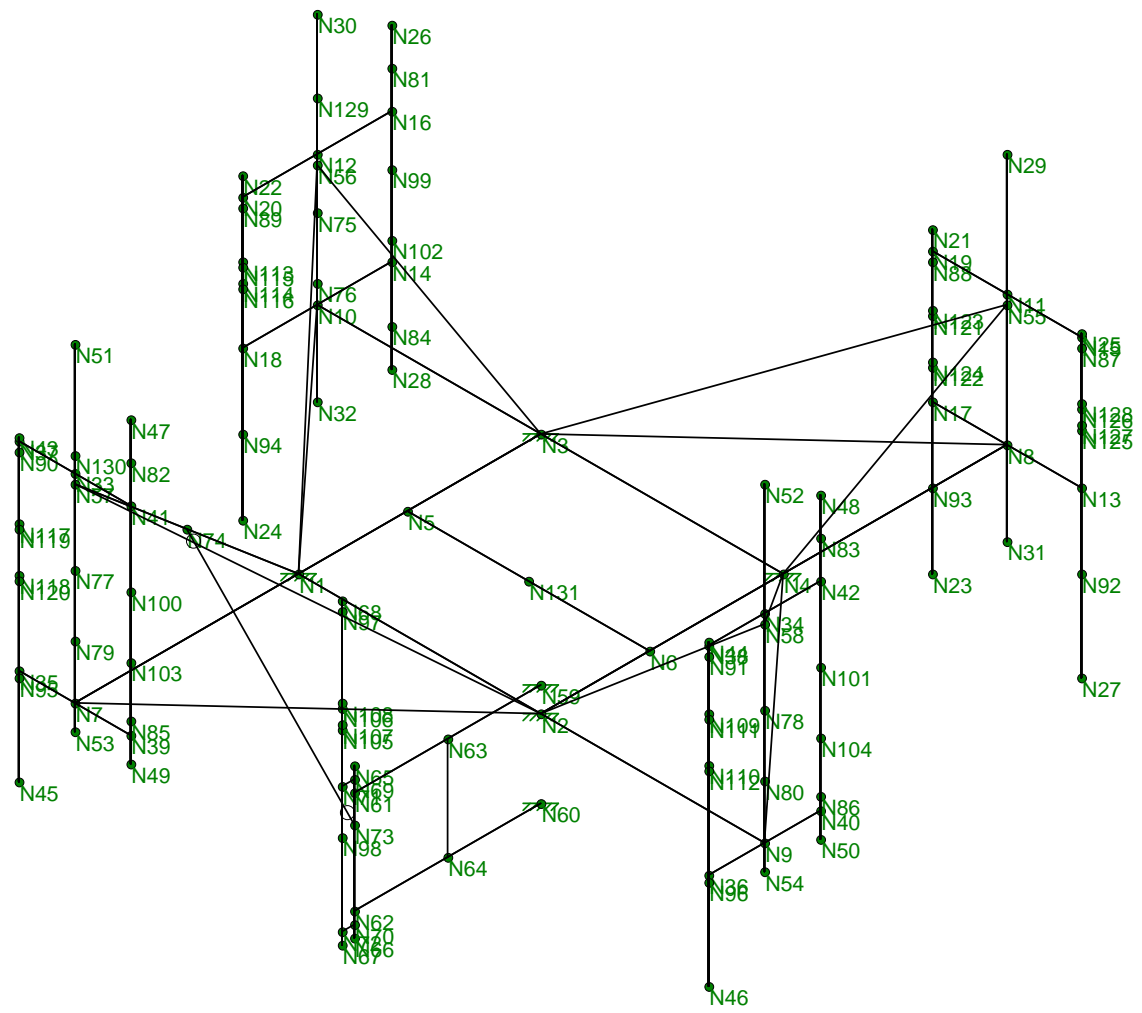
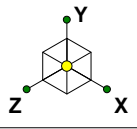
CTL01065

Mount Analysis
Shape

SK - 3

Mar 29, 2016 at 2:27 PM

CTL01065 - Mount Analysis.r3d



Envelope Only Solution

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GO

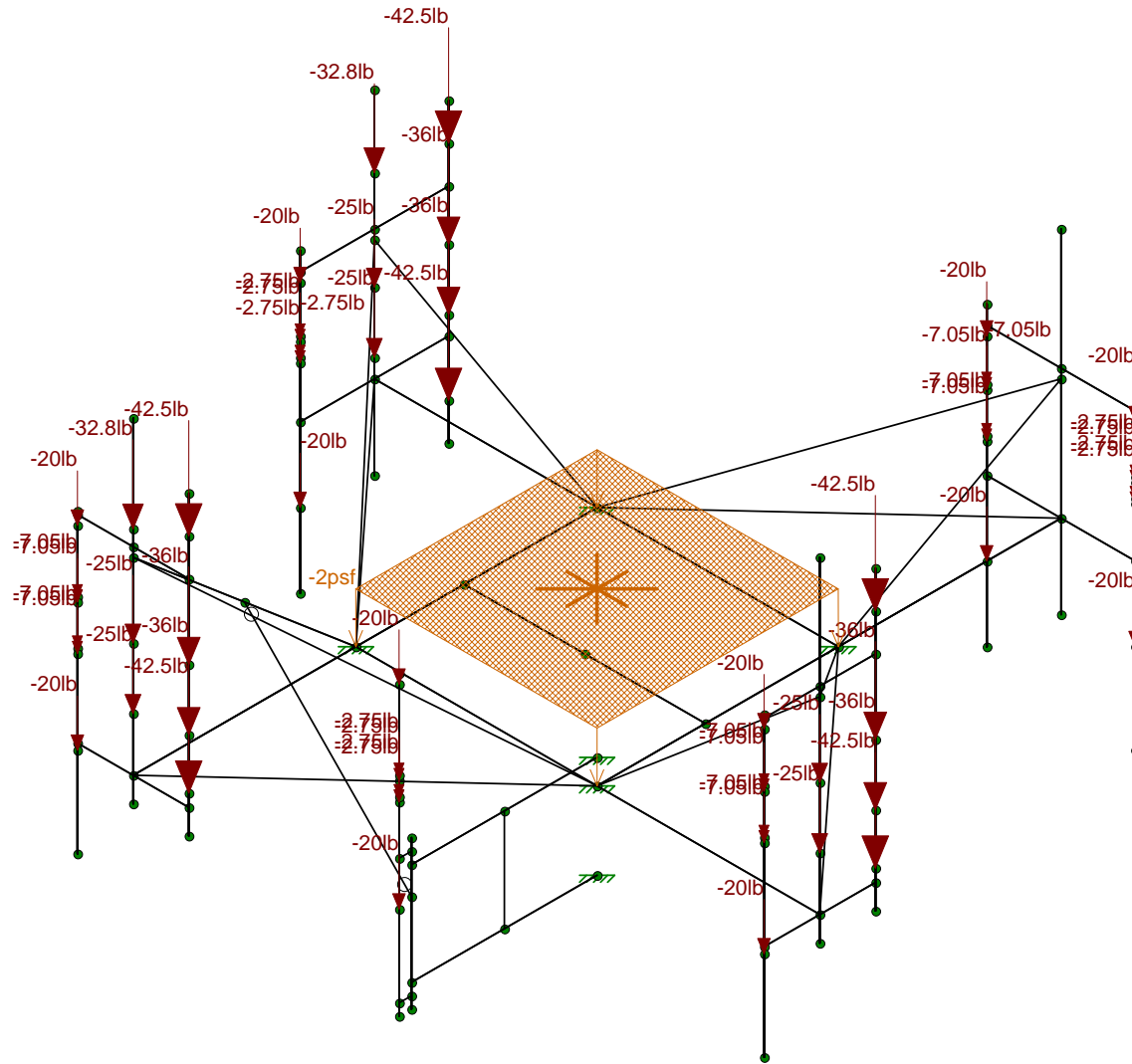
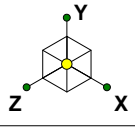
CTL01065

Mount Analysis
Nodes

SK - 4

Mar 29, 2016 at 2:27 PM

CTL01065 - Mount Analysis.r3d

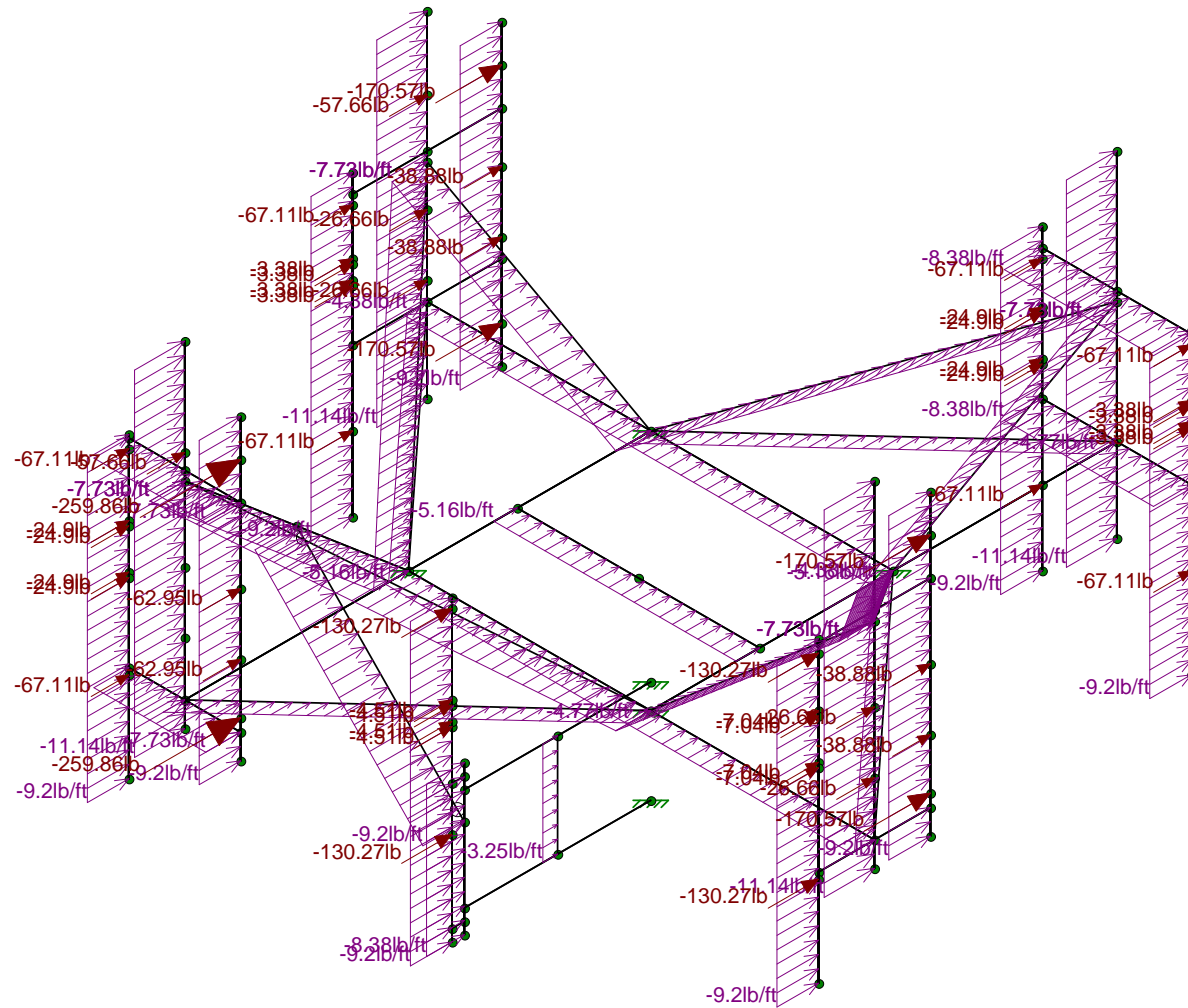
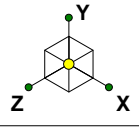


Loads: BLC 1, DL
Envelope Only Solution

Fullerton Engineering Consultants, ...
GO
CTL01065

Mount Analysis
Dead Load

SK - 5
Mar 29, 2016 at 2:28 PM
CTL01065 - Mount Analysis.r3d

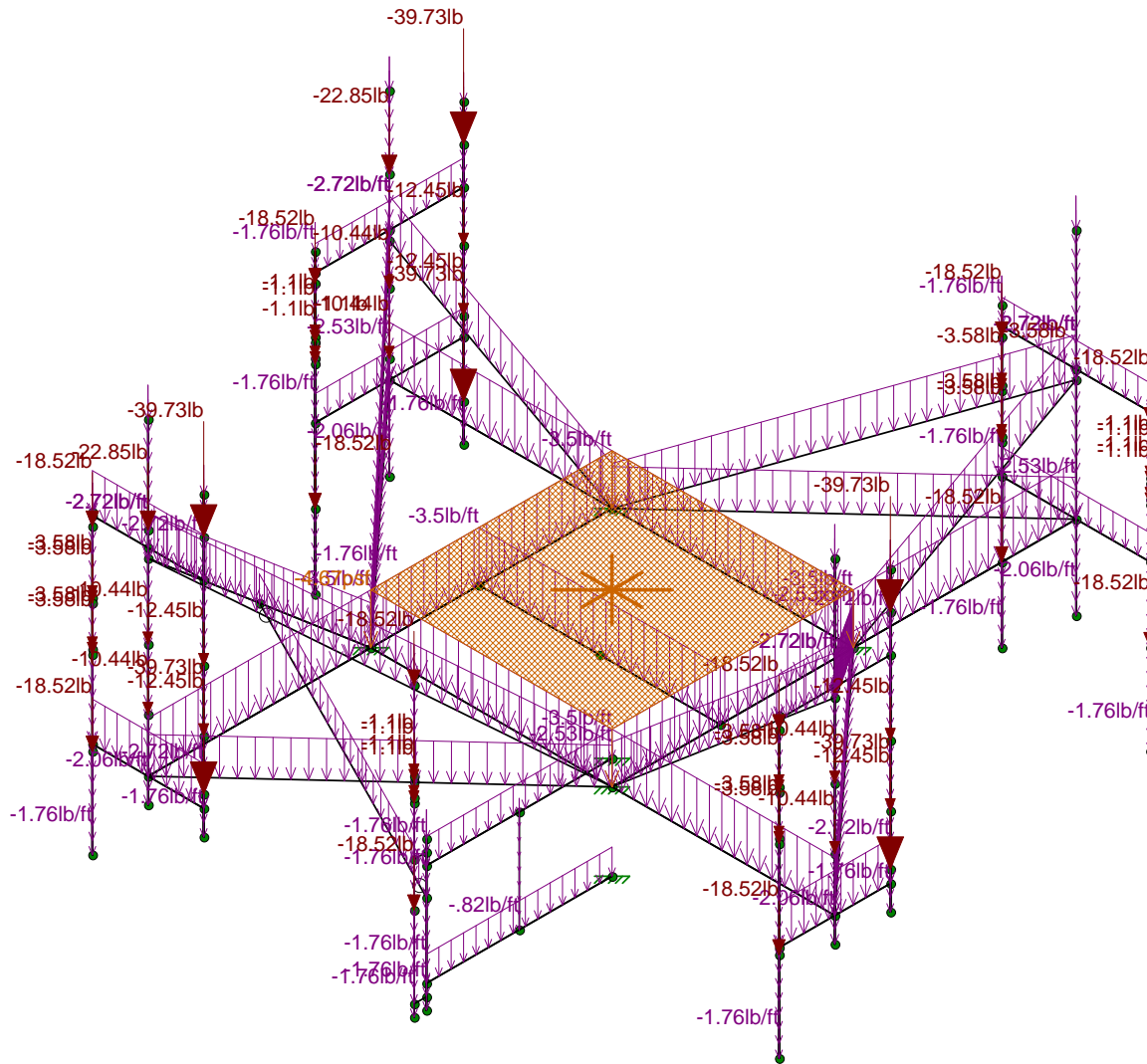
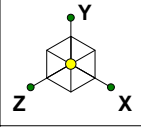


Loads: BLC 3, WL(0)
Envelope Only Solution

Fullerton Engineering Consultants, ...
GO
CTL01065

Mount Analysis
Wind Load (Z-Direction)

SK - 6
Mar 29, 2016 at 2:28 PM
CTL01065 - Mount Analysis.r3d



Loads: BLC 2, DLi
Envelope Only Solution

Fullerton Engineering Consultants, ...

GO

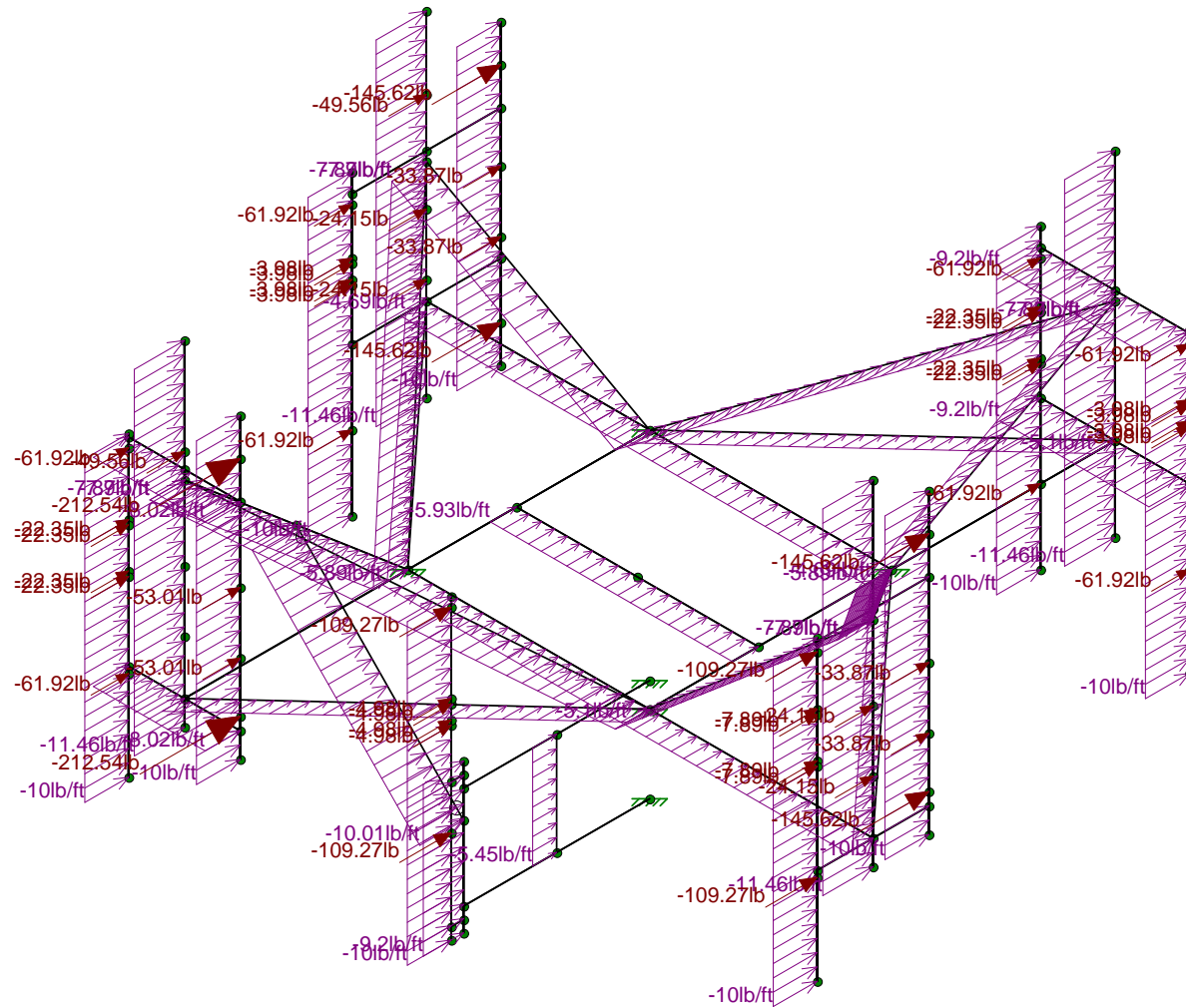
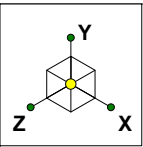
CTL01065

Mount Analysis
Ice Load

SK - 8

Mar 29, 2016 at 2:29 PM

CTL01065 - Mount Analysis.r3d



Loads: BLC 5, WL.i(0)
Envelope Only Solution

Fullerton Engineering Consultants, ...

GO

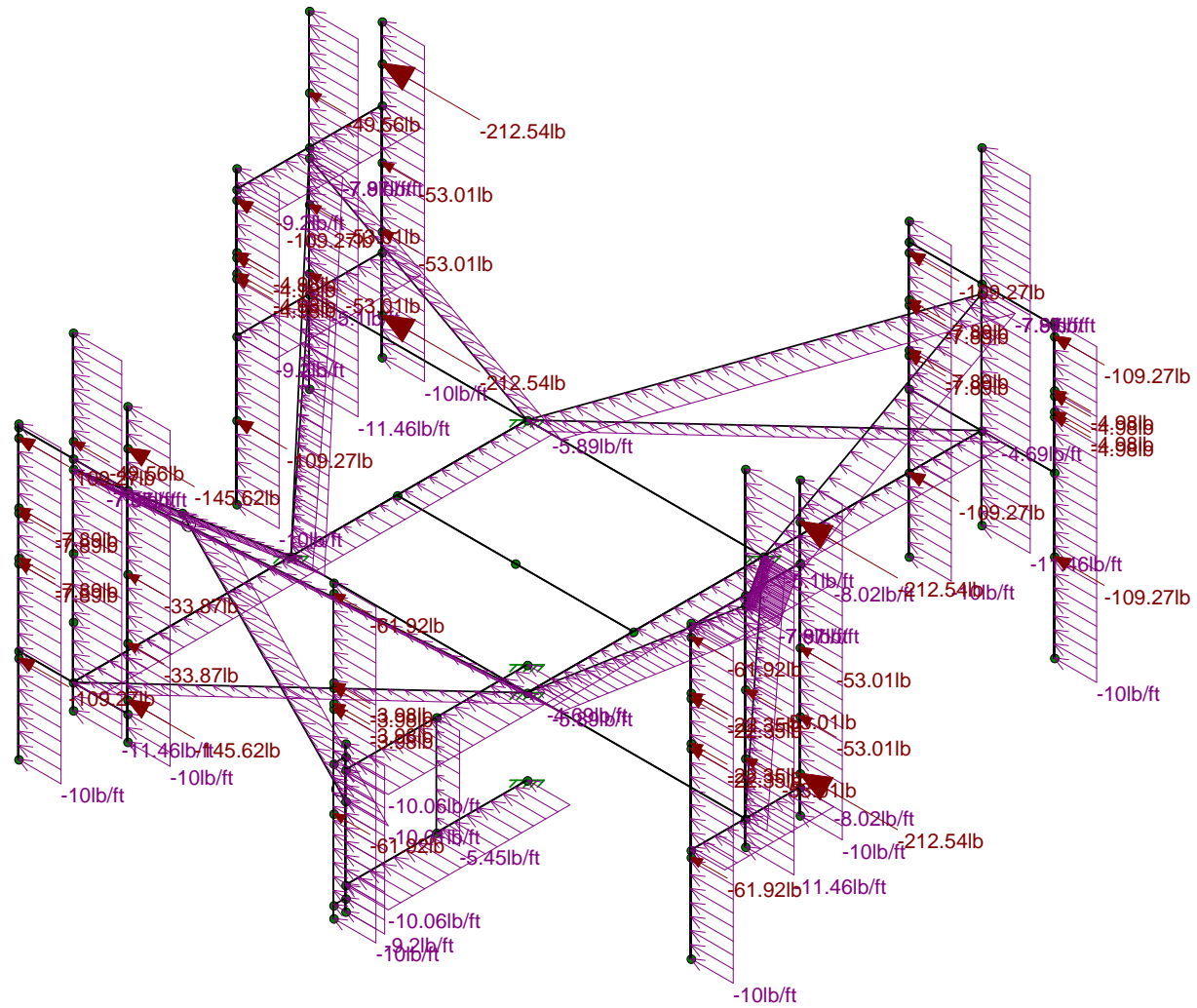
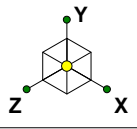
CTL01065

Mount Analysis
Wind Load with Ice (Z-Direction)

SK - 9

Mar 29, 2016 at 2:29 PM

CTL01065 - Mount Analysis.r3d

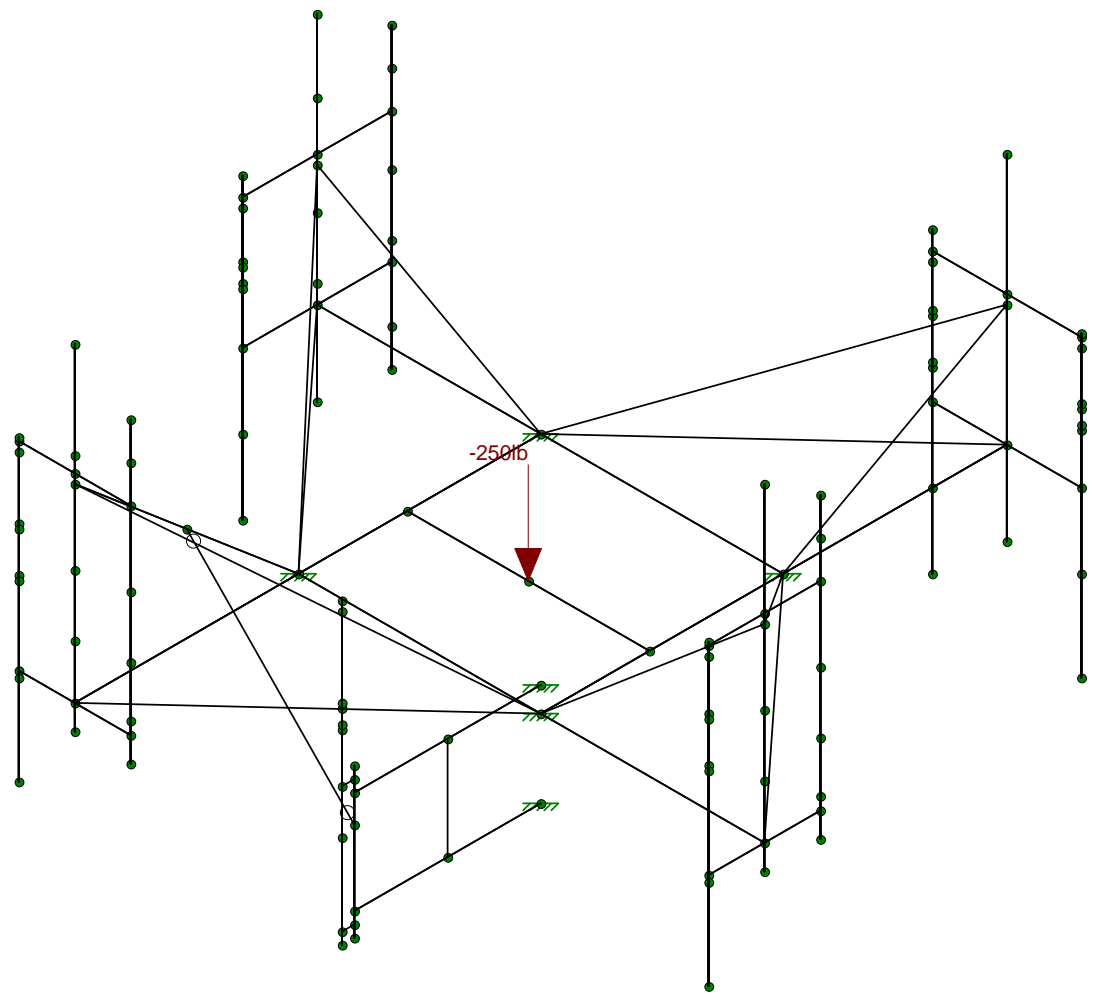
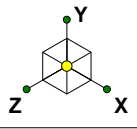


Loads: BLC 6, WL.i(90)
Envelope Only Solution

Fullerton Engineering Consultants, ...
GO
CTL01065

Mount Analysis
Wind Load with Ice (X-Direction)

SK - 10
Mar 29, 2016 at 2:30 PM
CTL01065 - Mount Analysis.r3d



Loads: BLC 8, Live Load
Envelope Only Solution

Fullerton Engineering Consultants, ...
GO
CTL01065

Mount Analysis
Live Load

SK - 11
Mar 29, 2016 at 2:30 PM
CTL01065 - Mount Analysis.r3d



Town of Lebanon, Connecticut
Web GIS Maps and Online Property Information
by MainStreetGIS, LLC
[Town Website](#) [Feedback](#)

Base Map:

GIS Map Street View Tax Maps

Layers: **Property** Selection

244 GATES RD
208-55



- Zoom To
- Property Card
- Abutters List
- Changes / Uncls
- Report an Issue

Map Street View Birds Eye Info All

Gates Rd
Lebanon, Connecticut
[View on Google Maps](#)

Map Channels
Free Mapping and Navigation Tools
www.mapchannels.com

Will-FM Willimantic
Sault's Ridge Park

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SITE SAFE
RF COMPLIANCE EXPERTS

A BUSINESS OF FDH VELOCITEL

200 North Glebe Road, Suite 1000, Arlington, VA 22203-3728
703.276.1100 • 703.276.1169 fax
info@sitesafe.com • www.sitesafe.com



**Smartlink LLC on behalf of
AT&T Mobility, LLC
Site FA – 10035007
Site ID – CT1065(3C)
USID – 65054
Site Name – LEBANON
Site Compliance Report**

**244 GATES ROAD
LEBANON, CT 06249**

Latitude: N41-40-58.57
Longitude: W72-12-58.29
Structure Type: Self-Support

Report generated date: August 12, 2016
Report by: Sam Cosgrove
Customer Contact: David Barbagallo

**AT&T Mobility, LLC will be compliant when the
remediation recommended in section 5.2 or
other appropriate remediation is implemented.**

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1 General Site Summary

1.1 Report Summary

AT&T Mobility, LLC	Summary
Access to Antennas Locked?	No
RF Sign(s) @ access point(s)	None
RF Sign(s) @ antennas	None
Barrier(s) @ sectors	None
Max cumulative simulated RFE level on the Ground Level	<1% General Public Limit
FCC & AT&T Compliant?	Will Be Compliant

The following documents were provided by the client and were utilized to create this report:







RFDS: NEW-ENGLAND_CONNECTICUT_CTV1065_2016-LTE-Next-Carrier_LTE-3C_mm093q_2051A052XC_10035007_65054_01-08-2016_Final-Approved_v1.00

CD's: 10035007_AE201_160330_CTL01065_REV1

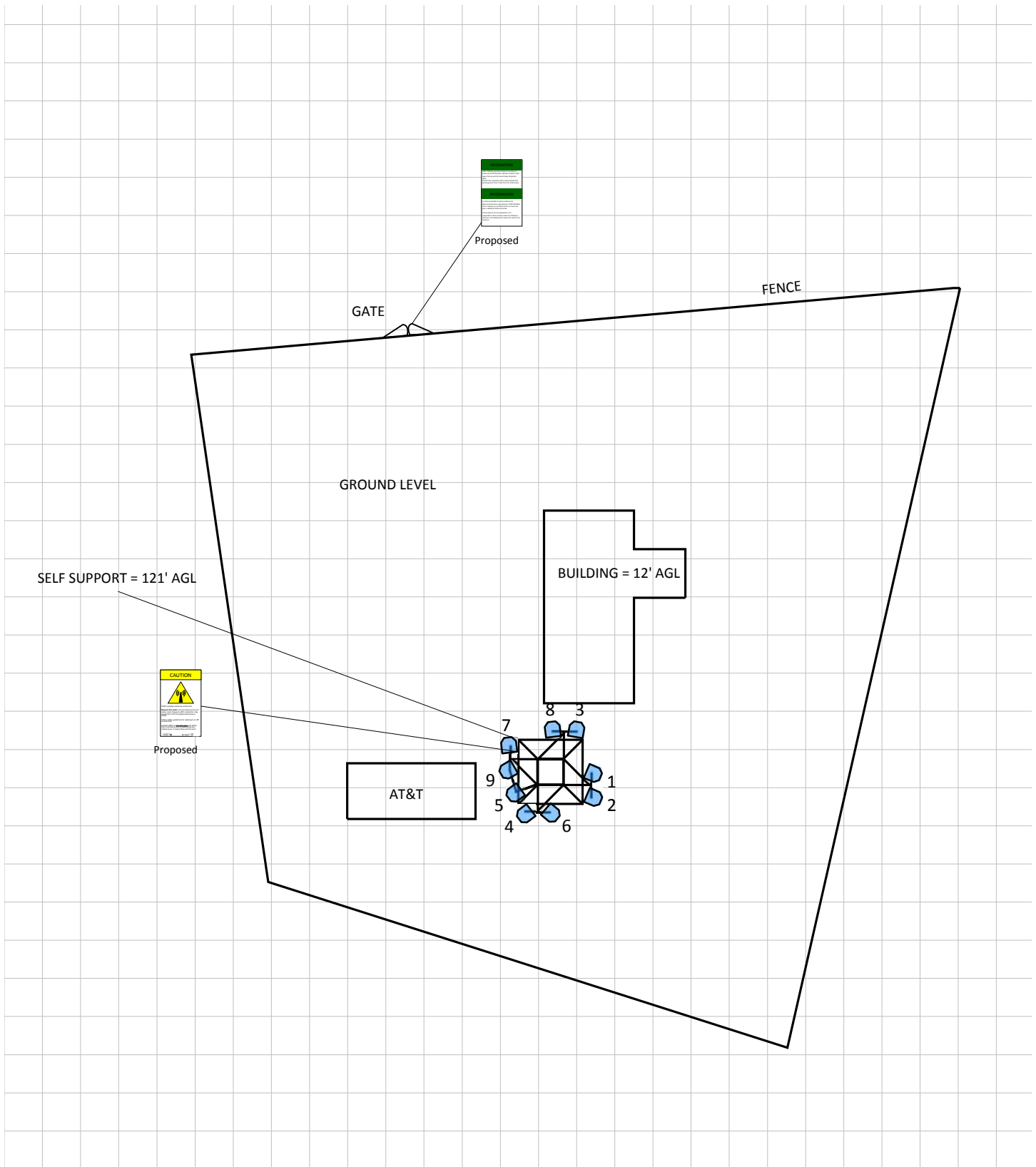
2 Scale Maps of Site

The following diagrams are included:

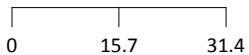
- Site Scale Map
- RF Exposure Diagram
- Elevation View

Scale Map Key		
 <p>Existing Sign</p>	 <p>Proposed Barrier</p>	 <p>GPS Reading</p>
 <p>Proposed Sign</p>	 <p>Existing Barrier</p>	 <p>Anchor Point</p>

Site Scale Map For: LEBANON



(Feet)



www.sitesafe.com
 Site Name:LEBANON
 8/12/2016 3:28:18 PM

AT&T MOBILITY LLC	VERIZON WIRELESS	T-MOBILE	METROPICS	CRICKET COMMUNICATIONS	CLEARWIRE	SPRINT

3 Antenna Inventory

The following antenna inventory on this and the following page, were obtained by the customer and were utilized to create the site model diagrams:

Ant ID	Operator	Antenna Make & Model	Type	TX Freq (MHz)	Az (Deg)	Hor BW (Deg)	Ant Len (ft)	Ant Gain (dBd)	2G GSM Radio(s)	3G UMTS Radio(s)	4G Radio(s)	Total ERP (Watts)	X	Y	Z (AGL)
1	AT&T MOBILITY LLC	Powerwave 7770	Panel	850	143	82	4.6	11.51	0	1	0	269.1	142'	145.8'	121.7'
1	AT&T MOBILITY LLC	Powerwave 7770	Panel	1900	143	86	4.6	13.41	0	1	0	349.9	142'	145.8'	121.7'
2	AT&T MOBILITY LLC	Powerwave 7770	Panel	850	143	82	4.6	11.51	1	0	0	150.3	142'	140.3'	121.7'
3	AT&T MOBILITY LLC (PROPOSED)	CCI Antennas TPA-65R-LCUUUU-H8	Panel	737	40	61.9	8	13.56	0	0	1	1475.7	138'	156'	120'
3	AT&T MOBILITY LLC (PROPOSED)	CCI Antennas TPA-65R-LCUUUU-H8	Panel	1900	40	68.2	8	13.86	0	0	1	2421	138'	156'	120'
3	AT&T MOBILITY LLC (PROPOSED)	CCI Antennas TPA-65R-LCUUUU-H8	Panel	2100	40	65.2	8	13.96	0	0	1	2535.1	138'	156'	120'
4	AT&T MOBILITY LLC	Powerwave 7770	Panel	850	263	82	4.6	11.51	0	1	0	269.1	126.2'	136.5'	121.7'
4	AT&T MOBILITY LLC	Powerwave 7770	Panel	1900	263	86	4.6	13.41	0	1	0	349.9	126.2'	136.5'	121.7'
5	AT&T MOBILITY LLC	Powerwave 7770	Panel	850	263	82	4.6	11.51	1	0	0	150.3	123.8'	141.3'	121.7'
6	AT&T MOBILITY LLC (PROPOSED)	CCI Antennas TPA-65R-LCUUUU-H8	Panel	737	160	61.9	8	13.56	0	0	1	1475.7	132.3'	136.7'	120'
6	AT&T MOBILITY LLC (PROPOSED)	CCI Antennas TPA-65R-LCUUUU-H8	Panel	1900	160	68.2	8	13.86	0	0	1	2421	132.3'	136.7'	120'
6	AT&T MOBILITY LLC (PROPOSED)	CCI Antennas TPA-65R-LCUUUU-H8	Panel	2100	160	65.2	8	13.96	0	0	1	2535.1	132.3'	136.7'	120'
7	AT&T MOBILITY LLC	Powerwave 7770	Panel	850	23	82	4.6	11.51	0	1	0	269.1	122.5'	152.4'	121.7'
7	AT&T MOBILITY LLC	Powerwave 7770	Panel	1900	23	86	4.6	13.41	0	1	0	401.8	122.5'	152.4'	121.7'
8	AT&T MOBILITY LLC	Powerwave 7770	Panel	850	23	82	4.6	11.51	1	0	0	75.3	132.5'	156'	121.7'
9	AT&T MOBILITY LLC (PROPOSED)	CCI Antennas TPA-65R-LCUUUU-H8	Panel	737	270	61.9	8	13.56	0	0	1	1475.7	122.2'	146.6'	120'
9	AT&T MOBILITY LLC (PROPOSED)	CCI Antennas TPA-65R-LCUUUU-H8	Panel	1900	270	68.2	8	13.86	0	0	1	2421	122.2'	146.6'	120'
9	AT&T MOBILITY LLC (PROPOSED)	CCI Antennas TPA-65R-LCUUUU-H8	Panel	2100	270	65.2	8	13.96	0	0	1	2535.1	122.2'	146.6'	120'

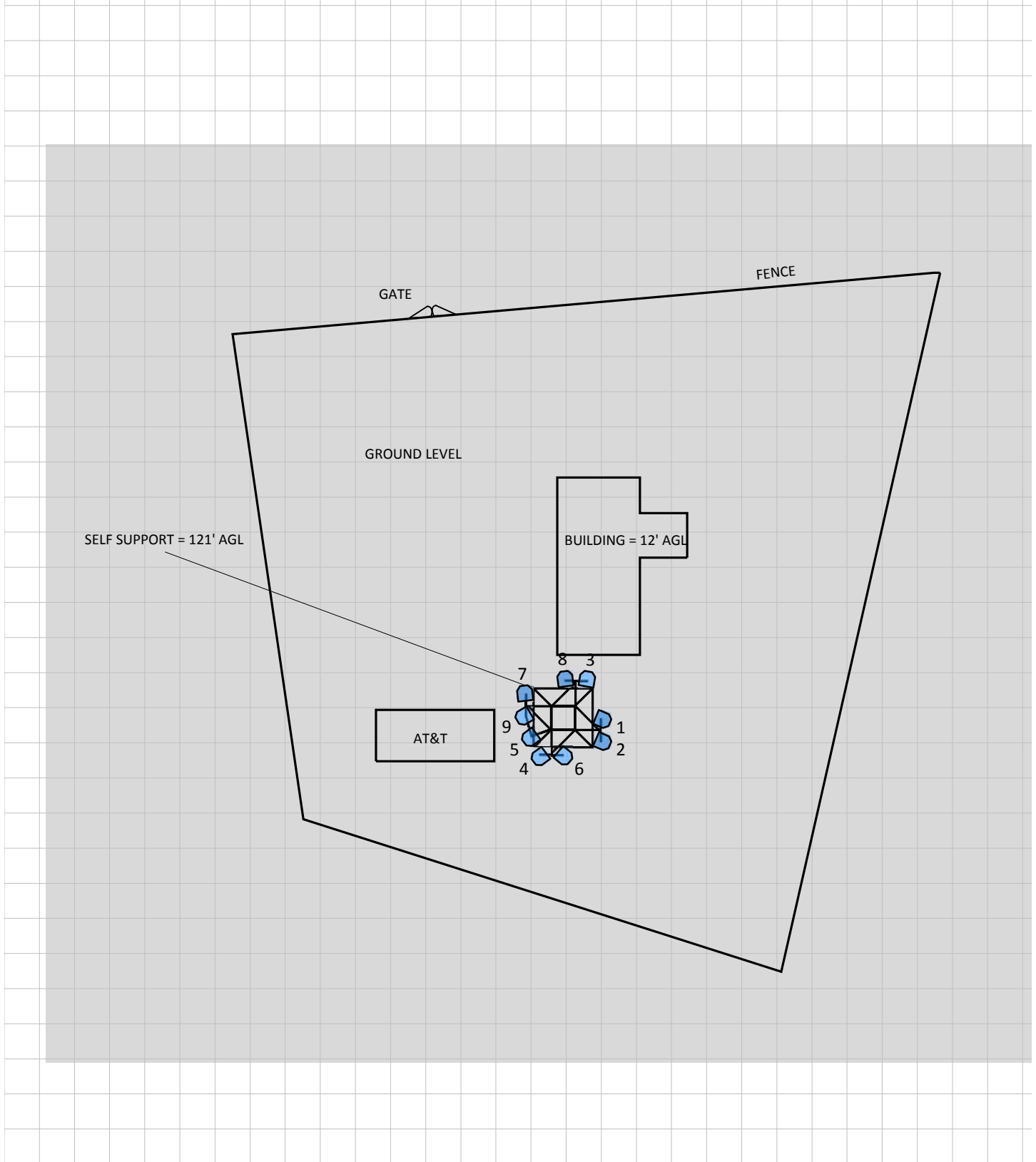
NOTE: X, Y and Z indicate relative position of the bottom of the antenna to the origin location on the site, displayed in the model results diagram. Specifically, the Z reference indicates the bottom of the antenna height above the main site level unless otherwise indicated. The distance to the bottom of the antenna is calculated by subtracting half of the length of the antenna from the antenna centerline. Effective Radiated Power (ERP) is provided by the operator or based on Sitesafe experience. The values used in the modeling may be greater than are currently deployed. For other operators at this site the use of "Generic" as an antenna model or "Unknown" for a wireless operator means the information with regard to operator, their FCC license and/or antenna information was not available nor could it be secured while on site. Other operator's equipment, antenna models and powers used for modeling are based on obtained information or Sitesafe experience.

4 Emission Predictions

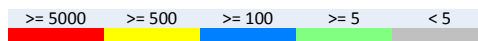
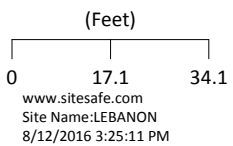
In the RF Exposure Simulations below all heights are reflected with respect to main site level. In most rooftop cases this is the height of the main rooftop and in other cases this can be ground level. Each different height area, rooftop, or platform level is labeled with its height relative to the main site level. Emissions are calculated appropriately based on the relative height and location of that area to all antennas.

The Antenna Inventory heights are referenced to the same level.

RF Exposure Simulation For: LEBANON



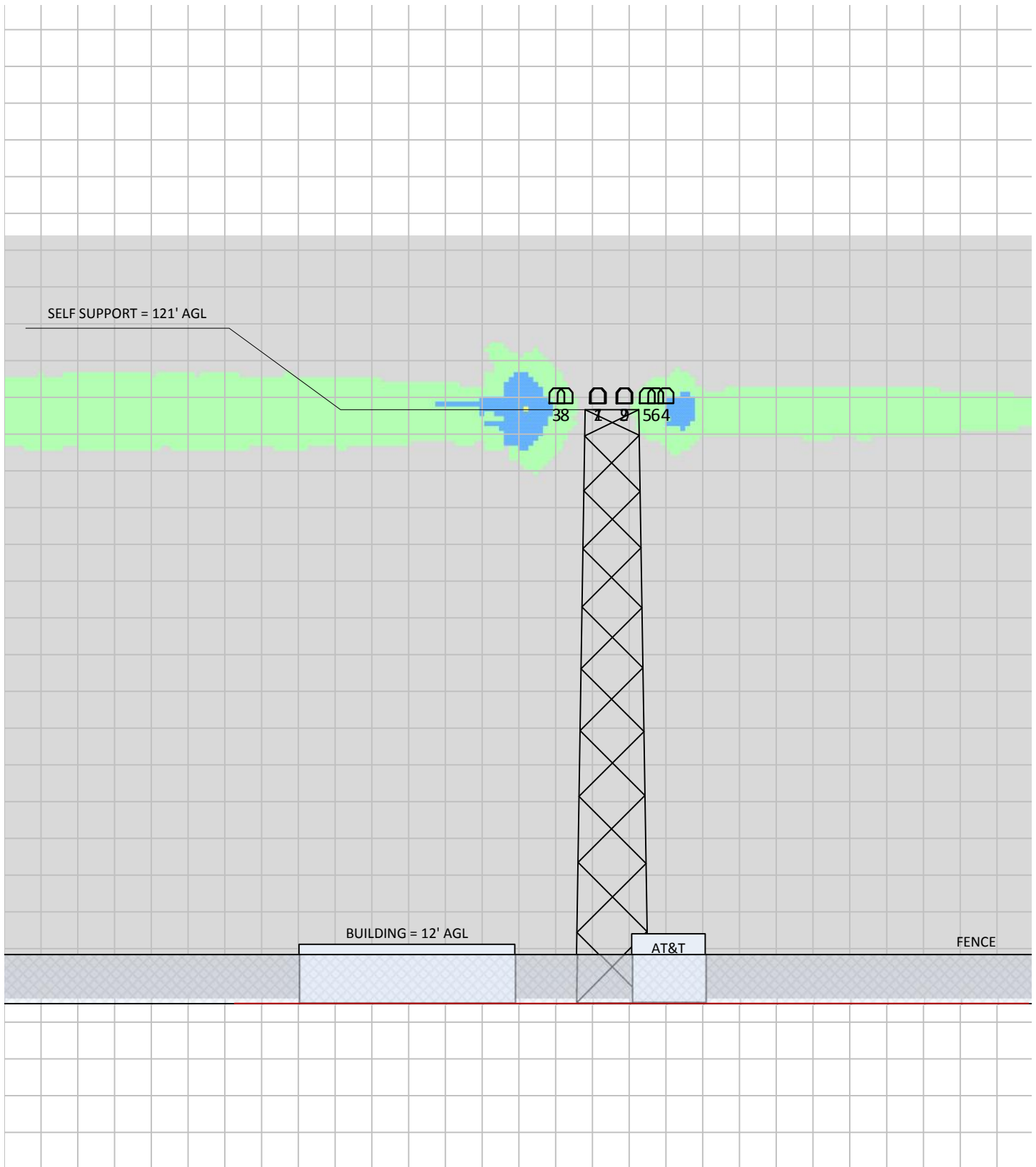
% of FCC Public Exposure Limit
Spatial average 0' - 6'



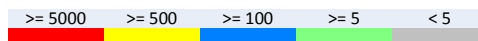
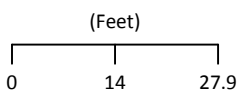
AT&T MOBILITY LLC	VERIZON WIRELESS	T-MOBILE	METROPICS	CRICKET COMMUNICATIONS	CLEARWIRE	SPRINT
-------------------	------------------	----------	-----------	------------------------	-----------	--------

SitesafeTC Version:1.0.0.0 - 0.0.0.249
 Sitesafe OET-65 Model
 Near Field Boundary: 1.5 * Aperture
 Reflection Factor: 1
 Spatially Averaged

RF Exposure Simulation For: LEBANON Elevation View



% of FCC Public Exposure Limit
Spatial average 0' - 6'



AT&T MOBILITY LLC	VERIZON WIRELESS	T-MOBILE	METROPCS	CRICKET COMMUNICATIONS	CLEARWIRE	SPRINT

www.sitesafe.com
Site Name: LEBANON
8/12/2016 3:37:29 PM

SitesafeTC Version: 1.0.0.0 - 0.0.0.249
Sitesafe OET-65 Model
Near Field Boundary: 1.5 * Aperture
Reflection Factor: 1
Spatially Averaged

5 Site Compliance

5.1 Site Compliance Statement

Upon evaluation of the cumulative RF emission levels from all operators at this site, RF hazard signage and antenna locations, Sitesafe has determined that:

AT&T Mobility, LLC will be compliant when the remediation recommended in section 5.2 or other appropriate remediation is implemented.

The compliance determination is based on General Public RFE levels derived from theoretical modeling, RF signage placement, proposed antenna inventory and the level of restricted access to the antennas at the site. Any deviation from the AT&T Mobility, LLC's proposed deployment plan could result in the site being rendered non-compliant.

Modeling is used for determining compliance and the percentage of MPE contribution.

5.2 Actions for Site Compliance

Based on FCC regulations, common industry practice, and our understanding of AT&T Mobility, LLC RF Safety Policy requirements, this section provides a statement of recommendations for site compliance. Recommendations have been proposed based on our understanding of existing access restrictions, signage, and an analysis of predicted RFE levels.

The site will be made compliant if the following changes are implemented:

Site Access Location

Information Sign 1 required at Gate.

Yellow caution 2 sign required at Self Support Access.

6 Engineer Certification

The professional engineer whose seal appears on the cover of this document hereby certifies and affirms that:

I am registered as a Professional Engineer in the jurisdiction indicated in the professional engineering stamp on the cover of this document; and

That I am an employee of Sitesafe, Inc., in Arlington, Virginia, at which place the staff and I provide RF compliance services to clients in the wireless communications industry; and

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission (FCC) as well as the regulations of the Occupational Safety and Health Administration (OSHA), both in general and specifically as they apply to the FCC Guidelines for Human Exposure to Radio-frequency Radiation; and

That I have thoroughly reviewed this Site Compliance Report and believe it to be true and accurate to the best of my knowledge as assembled by and attested to by Sam Cosgrove.

August 12, 2016

Appendix A – Statement of Limiting Conditions

Sitesafe has provided computer generated model(s) in this Site Compliance Report to show approximate dimensions of the site, and the model is included to assist the reader of the compliance report to visualize the site area, and to provide supporting documentation for Sitesafe's recommendations.

Sitesafe may note in the Site Compliance Report any adverse physical conditions, such as needed repairs, that Sitesafe became aware of during the normal research involved in creating this report. Sitesafe will not be responsible for any such conditions that do exist or for any engineering or testing that might be required to discover whether such conditions exist. Because Sitesafe is not an expert in the field of mechanical engineering or building maintenance, the Site Compliance Report must not be considered a structural or physical engineering report.

Sitesafe obtained information used in this Site Compliance Report from sources that Sitesafe considers reliable and believes them to be true and correct. Sitesafe does not assume any responsibility for the accuracy of such items that were furnished by other parties. When conflicts in information occur between data collected by Sitesafe provided by a second party and data collected by Sitesafe, the data will be used.

Appendix B – Regulatory Background Information

FCC Rules and Regulations

In 1996, the Federal Communication Commission (FCC) adopted regulations for the evaluating of the effects of RF emissions in 47 CFR § 1.1307 and 1.1310. The guideline from the FCC Office of Engineering and Technology is Bulletin 65 (“OET Bulletin 65”), *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields*, Edition 97-01, published August 1997. Since 1996 the FCC periodically reviews these rules and regulations as per their congressional mandate.

FCC regulations define two separate tiers of exposure limits: Occupational or “Controlled environment” and General Public or “Uncontrolled environment”. The General Public limits are generally five times more conservative or restrictive than the Occupational limit. These limits apply to *accessible* areas where workers or the general public may be exposed to Radio Frequency (RF) electromagnetic fields.

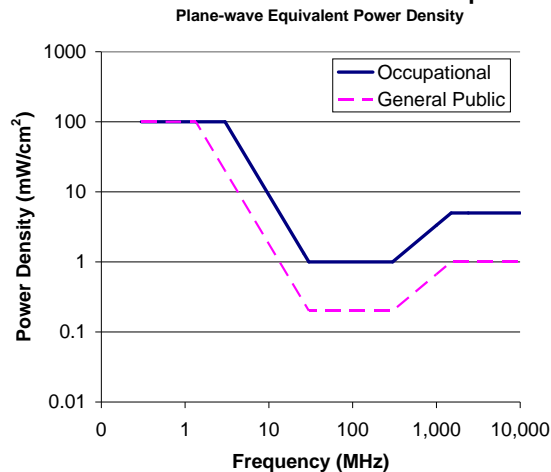
Occupational or Controlled limits apply in situations in which persons are exposed as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure.

An area is considered a Controlled environment when access is limited to these aware personnel. Typical criteria are restricted access (i.e. locked or alarmed doors, barriers, etc.) to the areas where antennas are located coupled with proper RF warning signage. A site with Controlled environments is evaluated with Occupational limits.

All other areas are considered Uncontrolled environments. If a site has no access controls or no RF warning signage it is evaluated with General Public limits.

The theoretical modeling of the RF electromagnetic fields has been performed in accordance with OET Bulletin 65. The Maximum Permissible Exposure (MPE) limits utilized in this analysis are outlined in the following diagram:

FCC Limits for Maximum Permissible Exposure (MPE)



Limits for Occupational/Controlled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

Limits for General Population/Uncontrolled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz

*Plane-wave equivalent power density

OSHA Statement

The General Duty clause of the OSHA Act (Section 5) outlines the occupational safety and health responsibilities of the employer and employee. The General Duty clause in Section 5 states:

(a) Each employer –

- (1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;
- (2) shall comply with occupational safety and health standards promulgated under this Act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

OSHA has defined Radiofrequency and Microwave Radiation safety standards for workers who may enter hazardous RF areas. Regulation Standards 29 CFR § 1910.147 identify a generic Lock Out Tag Out procedure aimed to control the unexpected energization or start up of machines when maintenance or service is being performed.

Appendix C – Safety Plan and Procedures

The following items are general safety recommendations that should be administered on a site by site basis as needed by the carrier.

General Maintenance Work: Any maintenance personnel required to work immediately in front of antennas and / or in areas indicated as above 100% of the Occupational MPE limits should coordinate with the wireless operators to disable transmitters during their work activities.

Training and Qualification Verification: All personnel accessing areas indicated as exceeding the General Population MPE limits should have a basic understanding of EME awareness and RF Safety procedures when working around transmitting antennas. Awareness training increases a workers understanding to potential RF exposure scenarios. Awareness can be achieved in a number of ways (e.g. videos, formal classroom lecture or internet based courses).

Physical Access Control: Access restrictions to transmitting antennas locations is the primary element in a site safety plan. Examples of access restrictions are as follows:

- Locked door or gate
- Alarmed door
- Locked ladder access
- Restrictive Barrier at antenna (e.g. Chain link with posted RF Sign)

RF Signage: Everyone should obey all posted signs at all times. RF signs play an important role in properly warning a worker prior to entering into a potential RF Exposure area.

Assume all antennas are active: Due to the nature of telecommunications transmissions, an antenna transmits intermittently. Always assume an antenna is transmitting. Never stop in front of an antenna. If you have to pass by an antenna, move through as quickly and safely as possible thereby reducing any exposure to a minimum.

Maintain a 3 foot clearance from all antennas: There is a direct correlation between the strength of an EME field and the distance from the transmitting antenna. The further away from an antenna, the lower the corresponding EME field is.

Site RF Emissions Diagram: Section 4 of this report contains an RF Diagram that outlines various theoretical Maximum Permissible Exposure (MPE) areas at the site. The modeling is a worst case scenario assuming a duty cycle of 100% for each transmitting antenna at full power. This analysis is based on one of two access control criteria: General Public criteria means the access to the site is uncontrolled and anyone can gain access. Occupational criteria means the access is restricted and only properly trained individuals can gain access to the antenna locations.

Appendix D – RF Emissions

The RF Emissions Simulation(s) in this report display theoretical spatially averaged percentage of the Maximum Permissible Exposure for all systems at the site unless otherwise noted. These diagrams use modeling as prescribed in OET Bulletin 65 and assumptions detailed in Appendix E.

The key at the bottom of each RF Emissions Simulation indicates percentages displayed referenced to FCC General Public Maximum Permissible Exposure (MPE) limits. Color coding on the diagram is as follows:

- Areas indicated as Gray are predicted to be below 5% of the MPE limits. **Gray represents areas more than 20 times below the most conservative exposure limit.**
- Green represents areas are predicted to be between 5% and 100% of the MPE limits. **Green areas are accessible to anyone.**
- Blue represents areas predicted to exceed the General Public MPE limits but are less than Occupational limits. **Blue areas should be accessible only to RF trained workers.**
- Yellow represents areas predicted to exceed Occupational MPE limits. **Yellow areas should be accessible only to RF trained workers able to assess current exposure levels.**
- Red represents areas predicted to have exposure more than 10 times the Occupational MPE limits. **Red indicates that the RF levels must be reduced prior to access.** An RF Safety Plan is required which outlines how to reduce the RF energy in these areas prior to access.

Appendix E – Assumptions and Definitions

General Model Assumptions

In this site compliance report, it is assumed that all antennas are operating at **full power at all times**. Software modeling was performed for all transmitting antennas located on the site. Sitesafe has further assumed a 100% duty cycle and maximum radiated power.

The modeling is based on recommendations from the FCC's OET-65 bulletin with the following variances per AT&T guidance. Reflection has not been considered in the modeling, i.e. the reflection factor is 1.0. The near / far field boundary has been set to 1.5 times the aperture height of the antenna and modeling beyond that point is the lesser of the near field cylindrical model and the far field model taking into account the gain of the antenna.

The site has been modeled with these assumptions to show the maximum RF energy density. Areas modeled with exposure greater than 100% of the General Public MPE level may not actually occur, but are shown as a prediction that could be realized. Sitesafe believes these areas to be safe for entry by occupationally trained personnel utilizing appropriate personal protective equipment (in most cases, a personal monitor).

Use of Generic Antennas

For the purposes of this report, the use of "Generic" as an antenna model, or "Unknown" for an operator means the information about a carrier, their FCC license and/or antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of equipment, antenna models, and transmit power to model the site. If more specific information can be obtained for the unknown measurement criteria, Sitesafe recommends remodeling of the site utilizing the more complete and accurate data. Information about similar facilities is used when the service is identified and associated with a particular antenna. If no information is available regarding the transmitting service associated with an unidentified antenna, using the antenna manufacturer's published data regarding the antenna's physical characteristics makes more conservative assumptions.

Where the frequency is unknown, Sitesafe uses the closest frequency in the antenna's range that corresponds to the highest Maximum Permissible Exposure (MPE), resulting in a conservative analysis.

Definitions

5% Rule – The rules adopted by the FCC specify that, in general, at multiple transmitter sites actions necessary to bring the area into compliance with the guidelines are the shared responsibility of all licensees whose transmitters produce field strengths or power density levels at the area in question in excess of 5% of the exposure limits. In other words, any wireless operator that contributes 5% or greater of the MPE limit in an area that is identified to be greater than 100% of the MPE limit is responsible taking corrective actions to bring the site into compliance.

Compliance – The determination of whether a site is safe or not with regards to Human Exposure to Radio Frequency Radiation from transmitting antennas.

Decibel (dB) – A unit for measuring power or strength of a signal.

Duty Cycle – The percent of pulse duration to the pulse period of a periodic pulse train. Also, may be a measure of the temporal transmission characteristic of an intermittently transmitting RF source such as a paging antenna by dividing average transmission duration by the average period for transmission. A duty cycle of 100% corresponds to continuous operation.

Effective (or Equivalent) Isotropic Radiated Power (EIRP) – The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna.

Effective Radiated Power (ERP) – In a given direction, the relative gain of a transmitting antenna with respect to the maximum directivity of a half wave dipole multiplied by the net power accepted by the antenna from the connecting transmitter.

Gain (of an antenna) – The ratio of the maximum intensity in a given direction to the maximum radiation in the same direction from an isotropic radiator. Gain is a measure of the relative efficiency of a directional antennas as compared to an omni directional antenna.

General Population/Uncontrolled Environment – Defined by the FCC, as an area where exposure to RF energy may occur to persons who are **unaware** of the potential for exposure and who have no control of their exposure. General Population is also referenced as General Public.

Generic Antenna – For the purposes of this report, the use of "Generic" as an antenna model means the antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of antenna models to select a worst case scenario antenna to model the site.

Isotropic Antenna – An antenna that is completely non-directional. In other words, an antenna that radiates energy equally in all directions.

Maximum Measurement – This measurement represents the single largest measurement recorded when performing a spatial average measurement.

Maximum Permissible Exposure (MPE) – The maximum levels of RF exposure a person may be exposed to without harmful effect and with acceptable safety factor.

Occupational/Controlled Environment – Defined by the FCC, as an area where Radio Frequency Radiation (RFR) exposure may occur to persons who are **aware** of the

potential for exposure as a condition of employment or specific activity and can exercise control over their exposure.

OET Bulletin 65 – Technical guideline developed by the FCC’s Office of Engineering and Technology to determine the impact of Radio Frequency radiation on Humans. The guideline was published in August 1997.

OSHA (Occupational Safety and Health Administration) – Under the Occupational Safety and Health Act of 1970, employers are responsible for providing a safe and healthy workplace for their employees. OSHA’s role is to promote the safety and health of America’s working men and women by setting and enforcing standards; providing training, outreach and education; establishing partnerships; and encouraging continual process improvement in workplace safety and health. For more information, visit www.osha.gov.

Radio Frequency (RF) – The frequencies of electromagnetic waves which are used for radio communications. Approximately 3 kHz to 300 GHz.

Radio Frequency Exposure (RFE) – The amount of RF power density that a person is or might be exposed to.

Spatial Average Measurement – A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average power density an average sized human will be exposed to at a location.

Transmitter Power Output (TPO) – The radio frequency output power of a transmitter’s final radio frequency stage as measured at the output terminal while connected to a load.

Appendix F – References

The following references can be followed for further information about RF Health and Safety.

Sitesafe, Inc.

<http://www.sitesafe.com>

FCC Radio Frequency Safety

<http://www.fcc.gov/encyclopedia/radio-frequency-safety>

National Council on Radiation Protection and Measurements (NCRP)

<http://www.ncrponline.org>

Institute of Electrical and Electronics Engineers, Inc., (IEEE)

<http://www.ieee.org>

American National Standards Institute (ANSI)

<http://www.ansi.org>

Environmental Protection Agency (EPA)

<http://www.epa.gov/radtown/wireless-tech.html>

National Institutes of Health (NIH)

<http://www.niehs.nih.gov/health/topics/agents/emf/>

Occupational Safety and Health Agency (OSHA)

<http://www.osha.gov/SLTC/radiofrequencyradiation/>

International Commission on Non-Ionizing Radiation Protection (ICNIRP)

<http://www.icnirp.org>

World Health Organization (WHO)

<http://www.who.int/peh-emf/en/>

National Cancer Institute

<http://www.cancer.gov/cancertopics/factsheet/Risk/cellphones>

American Cancer Society (ACS)

http://www.cancer.org/docroot/PED/content/PED_1_3X_Cellular_Phone_Towers.asp?sitearea=PED

European Commission Scientific Committee on Emerging and Newly Identified Health Risks

http://ec.europa.eu/health/ph_risk/committees/04_scenihp/docs/scenihp_o_022.pdf

Fairfax County, Virginia Public School Survey

<http://www.fcps.edu/fts/safety-security/RFEESurvey/>

UK Health Protection Agency Advisory Group on Non-ionising Radiation

http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1317133826368

Norwegian Institute of Public Health

<http://www.fhi.no/dokumenter/545eea7147.pdf>



PROJECT: LTE 3C
 SITE NUMBER: CTL01065
 FA NUMBER: 10035007
 PTN NUMBER: 2051A052XC
 PACE NUMBER: MRCTB017607
 SITE NAME: LEBANON
 SITE ADDRESS: 244 GATES ROAD
 LEBANON, CT 06249



550 COCHITUATE ROAD
 SUITE 550 13 AND 14
 FRAMINGHAM, MA 01701



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

PROJECT INFORMATION

SITE NAME: LEBANON
SITE NUMBER: CTL01065
SITE ADDRESS: 244 GATES ROAD
 LEBANON, CT 06249
FA NUMBER: 10035007
PTN NUMBER: 2051A052XC
PACE NUMBER: MRCTB017607
USID NUMBER: 65054

APPLICANT: AT&T WIRELESS
 550 COCHITUATE ROAD SUITE 550 13 AND 14
 FRAMINGHAM, MA 01701

OWNER: -

JURISDICTION: CONNECTICUT SITING COUNCIL
COUNTY: NEW LONDON COUNTY (RFDS)
SITE COORDINATES FROM: 41.682936°
 LATITUDE: -72.216193°
 LONGITUDE: 668'
GROUND ELEV.: TELECOMMUNICATIONS FACILITY
PROPOSED USE:

AT&T RF MANAGER: CAMERON SYME
PHONE: (508) 596-7146
EMAIL: cs6970@att.com

SCOPE OF WORK

THE SCOPE OF WORK CONSISTS OF:
ITEMS TO BE MOUNTED ON EXISTING TOWER:
 (3) LTE ANTENNAS, (3) RRU UNITS, (3) A2 MODULES & (1) RAYCAP UNIT, (1) FIBER CABLE & (2) DC POWER CABLES
ITEMS TO BE INSTALLED IN EXISTING AT&T EQUIPMENT AREA:
 (3) 25AMP BREAKERS, (1) LTE DUS & (1) XMU
ITEMS TO REMAIN:
 (6) ANTENNAS, (6) TMA UNITS, (6) RRU UNITS, (1) RAYCAP UNIT,
 (2) DC POWER CABLES, (1) FIBER CABLE, (12) 1-5/8" COAX CABLES
ITEMS TO BE REMOVED:
 (3) ANTENNAS

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

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: 2003 INTERNATIONAL BUILDING CODE
ELECTRICAL CODE: 2011 NATIONAL ELECTRIC CODE

- 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

REV	DATE	DESCRIPTION	BY
0	02/04/16	90% REVIEW	EB
1	03/30/16	FOR PERMIT	AS

I HEREBY CERTIFY THAT THESE DRAWING WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE CODES.

SITE LOCATION MAP



DRAWING INDEX

T1	TITLE SHEET
SP1	NOTES AND SPECIFICATIONS
SP2	NOTES AND SPECIFICATIONS
A1	COMPOUND PLAN
A2	EQUIPMENT PLAN
A3	ELEVATIONS
A4	ANTENNA PLANS
A5	EQUIPMENT DETAILS
A6	ANTENNA & CABLE CONFIGURATION
A7	CABLE NOTES AND COLOR CODING
A8	GROUNDING DETAILS

PROJECT CONSULTANTS

PROJECT MANAGER: SMARTLINK
 ADDRESS: 33 BOSTON POST RD. WEST, SUITE 210
 MARLBOROUGH, MA 01752
CONTACT: SHARON KEEFE (978) 930-3918
EMAIL: Sharon.Keefe@Smartlinkllc.com

SITE ACQUISITION: SMARTLINK
 ADDRESS: 33 BOSTON POST RD. WEST, SUITE 210
 MARLBOROUGH, MA 01752
CONTACT: SHARON KEEFE (978) 930-3918
EMAIL: Sharon.Keefe@Smartlinkllc.com

ENGINEER/ARCHITECT: FULLERTON ENGINEERING
 ADDRESS: 9600 W. BRYN MAWR, SUITE 200
 ROSEMONT, IL 60018
CONTACT: MILEN DIMITROV (224) 585-4437
EMAIL: mdimitrov@fullertonengineering.com

CONSTRUCTION: SMARTLINK
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 MARLBOROUGH, MA 01752
CONTACT: ROBERT PICARD (413) 772-9277
EMAIL: robert.picard@smartlinkllc.com

DIRECTIONS

SCAN QR CODE FOR LINK TO SITE LOCATION MAP



NOTE: DRAWING SCALES ARE FOR 11"x17" SHEETS UNLESS OTHERWISE NOTED

SITE NAME
LEBANON

SITE NUMBER:
CTL01065

SITE ADDRESS
**244 GATES ROAD
 LEBANON, CT 06249**

SHEET NAME
TITLE SHEET

SHEET NUMBER
T1

THESE DRAWINGS ARE THE PROPERTY OF FULLERTON ENGINEERING CONSULTANTS, INC. IT IS FOR THE EXCLUSIVE USE OF THIS PROJECT. ANY RE-USE OF THIS PROJECT, ANY RE-USE OF THIS DRAWING WITHOUT THE EXPRESSED WRITTEN CONSENT OF FULLERTON ENGINEERING CONSULTANTS, INC. IS PROHIBITED.



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1362 MELLON ROAD
SUITE 140
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1100 E. WOODFIELD ROAD, SUITE 500
SCHAUMBURG, ILLINOIS 60173
TEL: 847-908-8400
COA# PEC.0001444
www.FullertonEngineering.com

REV	DATE	DESCRIPTION	BY
0	02/04/16	90% REVIEW	EB
1	03/30/16	FOR PERMIT	AS

I HEREBY CERTIFY THAT THESE DRAWING WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE CODES.

SITE NAME

LEBANON

SITE NUMBER:

CTL01065

SITE ADDRESS

244 GATES ROAD
LEBANON, CT 06249

SHEET NAME

NOTES AND SPECIFICATIONS

SHEET NUMBER

SP1

GENERAL CONSTRUCTION

- FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR/CM - SMARTLINK
OWNER - AT&T WIRELESS
- ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND AT&T PROJECT SPECIFICATIONS.
- GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
- ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFIRM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
- GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
- ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
- SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. CONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.
- WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.

- THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
- THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OR 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.
- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED 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.
- 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.
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
- NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUNDING. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
- THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
- ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
- ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
- CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
- CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
- THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITAT (NO HANDICAP ACCESS REQUIRED).
- OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
- NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
- ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST REVISION AT&T MOBILITY GROUNDING STANDARD "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF GSM/GPRS WIRELESS SITES" AND "TECHNICAL SPECIFICATION FOR FACILITY GROUNDING". IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATION AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
- CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
- CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
- INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- NO WHITE STROBE LIGHTS ARE PERMITTED. LIGHTING IF REQUIRED, WILL MEET FAA STANDARDS AND REQUIREMENTS.

ANTENNA MOUNTING

- DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/TIA-222 OR APPLICABLE LOCAL CODES.

- ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS NOTED OTHERWISE.
- ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS NOTED OTHERWISE.
- DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
- ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.
- CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.
- ALL UNUSED PORTS ON ANY ANTENNAS SHALL BE TERMINATED WITH A 50-OHM LOAD TO ENSURE ANTENNAS PERFORM AS DESIGNED.
- PRIOR TO SETTING ANTENNA AZIMUTHS AND DOWNTILTS, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA MOUNT FOR TIGHTNESS AND ENSURE THAT THEY ARE PLUMB. ANTENNA AZIMUTHS SHALL BE SET FROM TRUE NORTH AND BE ORIENTED WITHIN +/- 5% AS DEFINED BY THE RFDS. ANTENNA DOWNTILTS SHALL BE WITHIN +/- 0.5% AS DEFINED BY THE RFDS. REFER TO ND-00246.

TORQUE REQUIREMENTS

- ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH.
- ALL RF CONNECTIONS, GROUNDING HARDWARE AND ANTENNA HARDWARE SHALL HAVE A TORQUE MARK INSTALLED IN A CONTINUOUS STRAIGHT LINE FROM BOTH SIDES OF THE CONNECTION.
A. RF CONNECTION BOTH SIDES OF THE CONNECTOR.
B. GROUNDING AND ANTENNA HARDWARE ON THE NUT SIDE STARTING FROM THE THREADS TO THE SOLID SURFACE. EXAMPLE OF SOLID SURFACE: GROUND BAR, ANTENNA BRACKET METAL.

FIBER & POWER CABLE MOUNTING

- THE FIBER OPTIC TRUNK CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY WHEN INSTALLING FIBER OPTIC TRUNK CABLES INTO A CABLE TRAY SYSTEM, THEY SHALL BE INSTALLED INTO AN INTER DUCT AND A PARTITION BARRIER SHALL BE INSTALLED BETWEEN THE 600 VOLT CABLES AND THE INTER DUCT IN ORDER TO SEGREGATE CABLE TYPES. OPTIC FIBER TRUNK CABLES SHALL HAVE APPROVED CABLE RESTRAINTS EVERY (60) SIXTY FEET AND SECURELY FASTENED TO THE CABLE TRAY SYSTEM. NFPA 70 (NEC) ARTICLE 770 RULES SHALL APPLY.
- THE TYPE TC-ER CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY AND SHALL BE SECURED AT INTERVALS NOT EXCEEDING (6) SIX FEET. AN EXCEPTION; WHERE TYPE TC-ER CABLES ARE NOT SUBJECT TO PHYSICAL DAMAGE, CABLES SHALL BE PERMITTED TO MAKE A TRANSITION BETWEEN CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY WHICH ARE SERVING UTILIZATION EQUIPMENT OR DEVICES, A DISTANCE (6) SIX FEET SHALL NOT BE EXCEEDED WITHOUT CONTINUOUS SUPPORTING. NFPA 70 (NEC) ARTICLES 336 AND 392 RULES SHALL APPLY.
- WHEN INSTALLING OPTIC FIBER TRUNK CABLES OR TYPE TC-ER CABLES INTO CONDUITS, NFPA 70 (NEC) ARTICLE 300 RULES SHALL APPLY.

COAXIAL CABLE NOTES

- TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.
- CONTRACTOR SHALL VERIFY THE DOWN-TILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
- CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION.
- ALL JUMPERS TO THE ANTENNAS FROM THE MAIN TRANSMISSION LINE SHALL BE 1/2" DIA. LDF AND SHALL NOT EXCEED 6'-0".

- ALL COAXIAL CABLE SHALL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE, IN AN APPROVED MANNER, AT DISTANCES NOT TO EXCEED 4'-0" OC.
- CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.
- CONTRACTOR SHALL GROUND ALL EQUIPMENT. INCLUDING ANTENNAS, RET MOTORS, TMA'S, COAX CABLES, AND RET CONTROL CABLES AS A COMPLETE SYSTEM. GROUNDING SHALL BE EXECUTED BY QUALIFIED WIREMEN IN COMPLIANCE WITH MANUFACTURER'S SPECIFICATION AND RECOMMENDATION.
- CONTRACTOR SHALL PROVIDE STRAIN-RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES, COAX CABLES, AND RET CONTROL CABLES. CABLE STRAIN-RELIEFS AND CABLE SUPPORTS SHALL BE APPROVED FOR THE PURPOSE. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
- CONTRACTOR TO VERIFY THAT EXISTING COAX HANGERS ARE STACKABLE SNAP IN HANGERS. IF EXISTING HANGERS ARE NOT STACKABLE SNAP IN HANGERS THE CONTRACTOR SHALL REPLACE EXISTING HANGERS WITH NEW SNAP IN HANGERS IF APPLICABLE.

GENERAL CABLE AND EQUIPMENT NOTES

- CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, TMA'S, DIPLEXERS, AND COAX CONFIGURATION, MAKE AND MODELS PRIOR TO INSTALLATION.
- ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S RECOMMENDATIONS.
- CONTRACTOR SHALL REFERENCE THE TOWER STRUCTURAL ANALYSIS/DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION/ROUTING.
- ALL OUTDOOR RF CONNECTORS/CONNECTIONS SHALL BE WEATHERPROOFED, EXCEPT THE RET CONNECTORS, USING BUTYL TAPE AFTER INSTALLATION AND FINAL CONNECTIONS ARE MADE. BUTYL TAPE SHALL HAVE A MINIMUM OF ONE-HALF TAPE WIDTH OVERLAP ON EACH TURN AND EACH LAYER SHALL BE WRAPPED THREE TIMES. WEATHERPROOFING SHALL BE SMOOTH WITHOUT BUCKLING. BUTYL BLEEDING IS NOT ALLOWED.
- IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:
A. TEMPERATURE SHALL BE ABOVE 50° F.
B. PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.
C. FOR REGULATED TOWERS, FAA/FCC APPROVED PAINT IS REQUIRED.
D. DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS
- ALL CABLES SHALL BE GROUNDED WITH COAXIAL CABLE GROUND KITS. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS.
A. GROUNDING AT THE ANTENNA LEVEL.
B. GROUNDING AT MID LEVEL, TOWERS WHICH ARE OVER 200'-0", ADDITIONAL CABLE GROUNDING REQUIRED.
C. GROUNDING AT BASE OF TOWER PRIOR TO TURNING HORIZONTAL.
D. GROUNDING OUTSIDE THE EQUIPMENT SHELTER AT ENTRY PORT.
E. GROUNDING INSIDE THE EQUIPMENT SHELTER AT THE ENTRY PORT.
- ALL PROPOSED GROUND BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUND BAR DOWNLEADS A MINIMUM DISTANCE OF 4'-0" BELOW GROUND BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.

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NOTICE

Beyond This Point you are entering a controlled area where RF emissions *may exceed* the FCC General Population Exposure Limits.

Follow all posted signs and site guidelines for working in a RF environment.

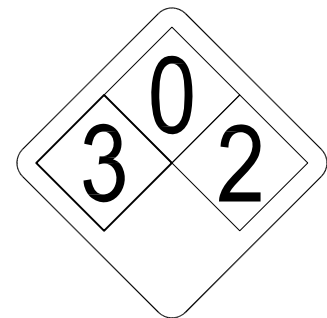
Ref: 47CFR 1.1307(b)

CAUTION

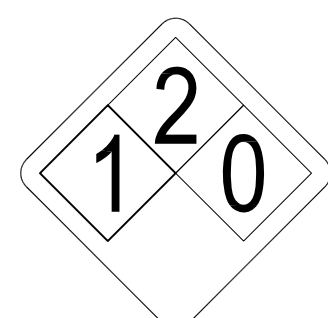
Beyond This Point you are entering a controlled area where RF emissions *may exceed* the FCC Occupational Exposure Limits.

Obey all posted signs and site guidelines for working in a RF environment.

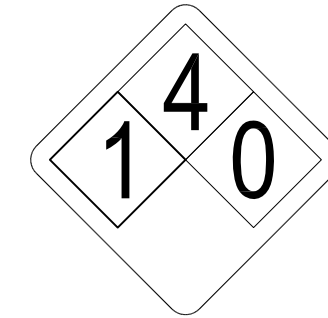
Ref: 47CFR 1.1307(b)



ALERTING SIGN
(FOR CELL SITE BATTERIES)



ALERTING SIGN
(FOR DIESEL FUEL)



ALERTING SIGN
(FOR PROPANE)

550 COCHITUATE ROAD
SUITE 550 13 AND 14
FRAMINGHAM, MA 01701

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	02/04/16	90% REVIEW	EB
1	03/30/16	FOR PERMIT	AS

I HEREBY CERTIFY THAT THESE DRAWING WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE CODES.

ALERTING SIGNS

WARNING!

DANGER DO NOT TOUCH TOWER!
SERIOUS "RF" BURN HAZARD!

MAINTAIN AN ADEQUATE CLEARANCE BETWEEN TOWER SUPPORTS AND GUY WIRES

FAILURE TO OBEY ALL POSTED SIGNS AND SITE GUIDELINES FOR WORKING IN A RADIO FREQUENCY ENVIRONMENT COULD RESULT IN SERIOUS INJURY. CONTACT CURRENT MAY EXCEED LIMITS PRESCRIBED IN ANSI/IEEE C95.1-1992 FOR CONTROLLED ENVIRONMENTS.

PROPERTY OF AT&T

AUTHORIZED PERSONNEL ONLY

IN CASE OF EMERGENCY, OR PRIOR TO PERFORMING MAINTENANCE ON THIS SITE, CALL 800-638-2822 AND REFERENCE CELL SITE NUMBER _____

ALERTING SIGN

INFO SIGN #4

INFORMATION

AT&T operates telecommunications antennas at this location. Remain at least 3 feet away from any antenna and obey all posted signs.

Contact the owner(s) of the antenna(s) before working closer than 3 feet from the antenna.

Contact AT&T at _____ prior to performing any maintenance or repairs near AT&T antennas. This is Site # _____

Contact the management office if this door/hatch/gate is found unlocked.

INFORMACION

En esta propiedad se ubican antenas de telecomunicaciones operadas por AT&T. Favor mantener una distancia de no menos de 3 pies y obedecer todos los avisos.

Comuníquese con el propietario o los propietarios de las antenas antes de trabajar o caminar a una distancia de menos de 3 pies de la antena.

Comuníquese con AT&T _____ antes de realizar cualquier mantenimiento o reparaciones cerca de la antena de AT&T.

Esta es la estación base número _____

Favor comunicarse con la oficina de la administración del edificio si esta puerta o compuerta se encuentra sin candado.

INFORMATION

ACTIVE ANTENNAS ARE MOUNTED

ON THE OUTSIDE OF THIS BUILDING

BEHIND THIS PANEL

ON THIS STRUCTURE

STAY BACK A MINIMUM OF 3 FEET FROM THESE ANTENNAS

Contact AT&T at _____ and follow their instructions prior to performing any maintenance or repairs closer than 3 feet from the antennas.

This is AT&T site # _____

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GENERAL SIGNAGE GUIDELINES

Structure Type	INFO SIGN #1	INFO SIGN #2	INFO SIGN #3	INFO SIGN #4	Striping	NOTICE SIGN	CAUTION SIGN
Towers							
Monopole/Monopine/Monopalm	entrance gates, shelter doors OR on the outdoor cabinets	climbing side of the Tower	On backside of Antennas	entrance gates, shelter doors OR on the outdoor cabinets			At the height of the first climbing step, min. 9ft above ground
SCE Towers/Towers with high voltage	entrance gates, shelter doors OR on the outdoor cabinets	climbing side of the Tower	On backside of Antennas	entrance gates, shelter doors OR on the outdoor cabinets			At the height of the first climbing step, min. 9ft above ground
Light Poles / Flag Poles	entrance gates, shelter doors OR on the outdoor cabinets	on the pole, no less than 3ft below the Antenna and no less than 9ft above ground	On backside of Antennas	entrance gates, shelter doors OR on the outdoor cabinets			
Utility Wood Poles (JPA)	entrance gates, shelter doors OR on the outdoor cabinets	on the pole, no less than 3ft below the Antenna and no less than 9ft above ground	On backside of Antennas	entrance gates, shelter doors OR on the outdoor cabinets		If GP max value of MPE at antenna level is: 0-99%: Notice sign; over 99%: Caution sign at no less than 3ft below antenna and 9ft above ground	
Microcells mounted on non-JPA poles	entrance gates, shelter doors OR on the outdoor cabinets	on the pole, no less than 3ft below the Antenna and no less than 9ft above ground	On backside of Antennas	entrance gates, shelter doors OR on the outdoor cabinets		Notice or Caution sign at no less than 9ft above ground; only if the exposure exceeds 90% of the General Public exposure at 6ft above ground or at outside surface of adjacent buildings.	
Roof Tops							
At all access points to the roof	X			X			
On Antennas	X		X	X			
Concealed Antennas	X	X		X			
antennas mounted facing outside the building	X	X		X			
antennas on support structure	X	X		X			
Roofview Graph:							
Radiation area is within 3ft from antenna	X	adjacent to each antenna		X			
Radiation area is beyond 3ft from antenna	X	adjacent to each antenna		X	diagonal, yellow striping as to Roofview graph		either Notice or Caution sign (based on Roofview results) at antennas/barrier
Church Steeples							
Access to steeple		adjacent to antennas if antennas are concealed	On backside of Antennas	Access to steeple			Caution sign at the antennas
Water Stations							
Access to ladder		adjacent to antennas if antennas are concealed	On backside of Antennas	Access to ladder			Caution sign beside Info sign #1, min. 9ft above ground

Notes for Rooftop sites:

- Either NOTICE or CAUTION signs need to be posted at each sector as close as possible to: the outer edge of the striped off area or the outer antennas of the sector.
- If Roofview shows: only blue = Notice Sign, blue and yellow = Caution Sign, only yellow = Caution Sign to be installed.
- Should the required striping area interfere with any structures or equipment (A/C, vents, roof hatch, doors, other antennas, dishes, etc.), please notify AT&T to modify the striping area, prior to starting the work

INFO SIGN #1

INFO SIGN #2

INFO SIGN #3

SIGNAGE GUIDELINES CHART

SITE NAME

LEBANON

SITE NUMBER:

CTL01065

SITE ADDRESS

244 GATES ROAD
LEBANON, CT 06249

SHEET NAME

NOTES AND SPECIFICATIONS

SHEET NUMBER

SP2

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SITE NAME
LEBANON

SITE NUMBER:
CTL01065

SITE ADDRESS
**244 GATES ROAD
LEBANON, CT 06249**

SHEET NAME
**COMPOUND
PLAN**

SHEET NUMBER
A1

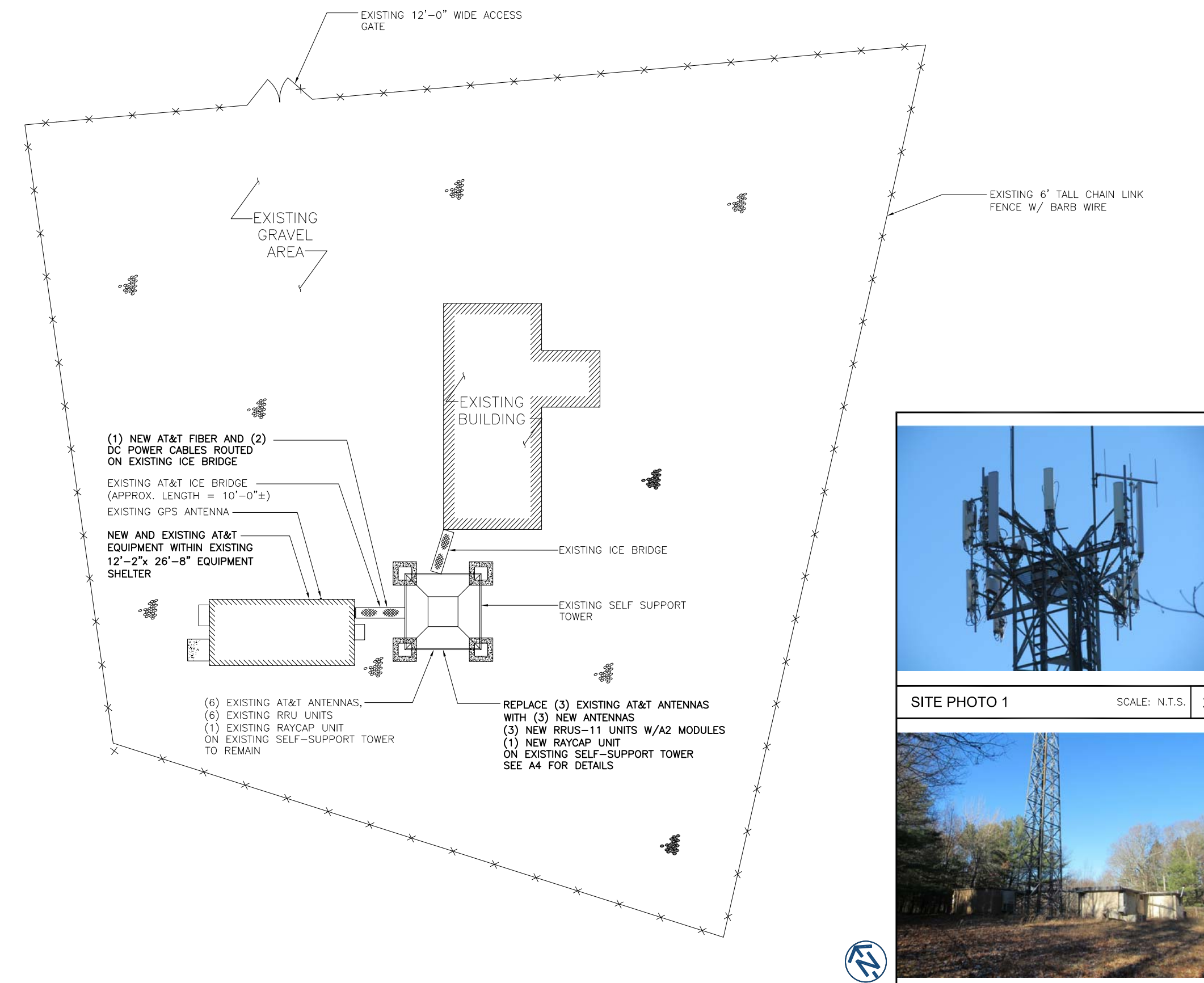
ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AGL	ABOVE GRADE LEVEL
AMSL	ABOVE MEAN SEA LEVEL
APPROX	APPROXIMATE
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
BTS	BASE TRANSMISSION STATION
C	CENTERLINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CND	CONDUIT
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
FIF	FACILITY INTERFACE FRAME
GA	GAUGE
GALV	GALVANIZED
GPS	GLOBAL POSITIONING SYSTEM
GND	GROUND
GSM	GLOBAL SYSTEM FOR MOBILE COMMUNICATION
LTE	LONG TERM EVOLUTION
MAX	MAXIMUM
MCPA	MULTI-CARRIER POWER AMPLIFIER
MFR	MANUFACTURER
MGB	MASTER GROUND BAR
MIN	MINIMUM
MTS	MANUAL TRANSFER SWITCH
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
OE/OT	OVERHEAD ELECTRIC/TELCO
PPC	POWER PROTECTION CABINET
PL	PROPERTY LINE
RBS	RADIO BASED STATION
RET	REMOTE ELECTRIC TILT
RRU	REMOTE RADIO UNIT
RGS	RIGID GALVANIZED STEEL
IN	INCH(ES)
INT	INTERIOR
LB(S), #	POUND(S)
SF	SQUARE FOOT
STL	STEEL
TMA	TOWER MOUNTED AMPLIFIER
TYP	TYPICAL
UE/UT	UNDERGROUND ELECTRIC/TELCO
UNO	UNLESS NOTED OTHERWISE
UMTS	UNIVERSAL MOBILE TELE-COMMUNICATION SYSTEM
VIF	VERIFY IN FIELD
W/	WITH
XFMR	TRANSFORMER

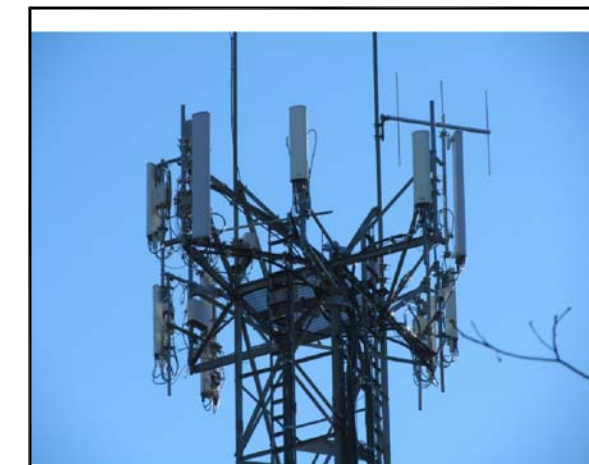
SYMBOLS

	REVISION
	WORK POINT
	UTILITY POLE
	COMPRESSED STONE
	BRICK
	CONCRETE
	EARTH
	GRAVEL
	MASONRY
	STEEL
	CENTERLINE
	PROPERTY LINE
	LEASE LINE
	EASEMENT LINE
	CHAIN LINK FENCE
	WOOD FENCE
	BELOW GRADE ELECTRIC
	BELOW GRADE TELEPHONE
	OVERHEAD ELECTRIC/TELEPHONE
	SECTION REFERENCE

COMPOUND PLAN



SCALE: 1" = 20'-0" 1



SITE PHOTO 1 SCALE: N.T.S. 2



SITE PHOTO 2 SCALE: N.T.S. 3

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SCHAUMBURG, ILLINOIS 60173
TEL: 847-908-8400
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SITE NAME

LEBANON

SITE NUMBER:

CTL01065

SITE ADDRESS

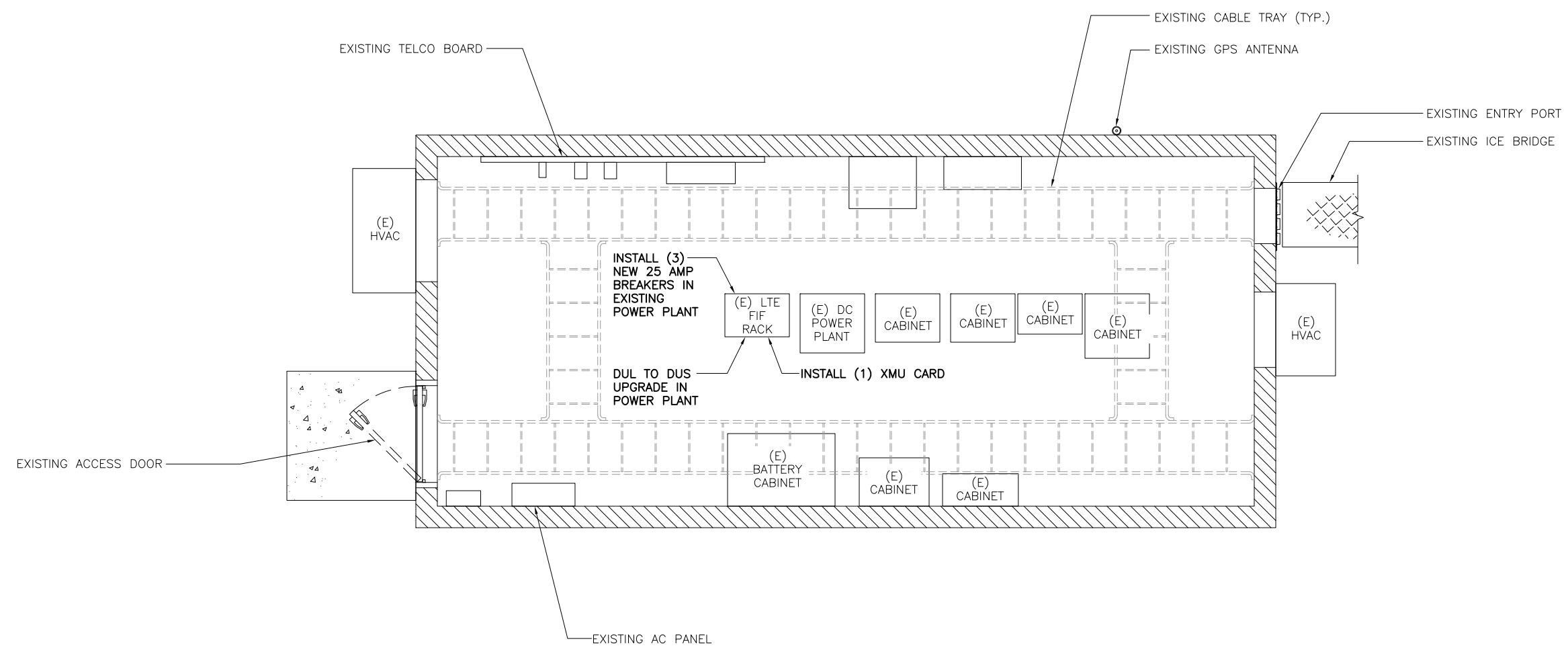
**244 GATES ROAD
LEBANON, CT 06249**

SHEET NAME

**EQUIPMENT
PLAN**

SHEET NUMBER

A2



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LEBANON

SITE NUMBER:
CTL01065

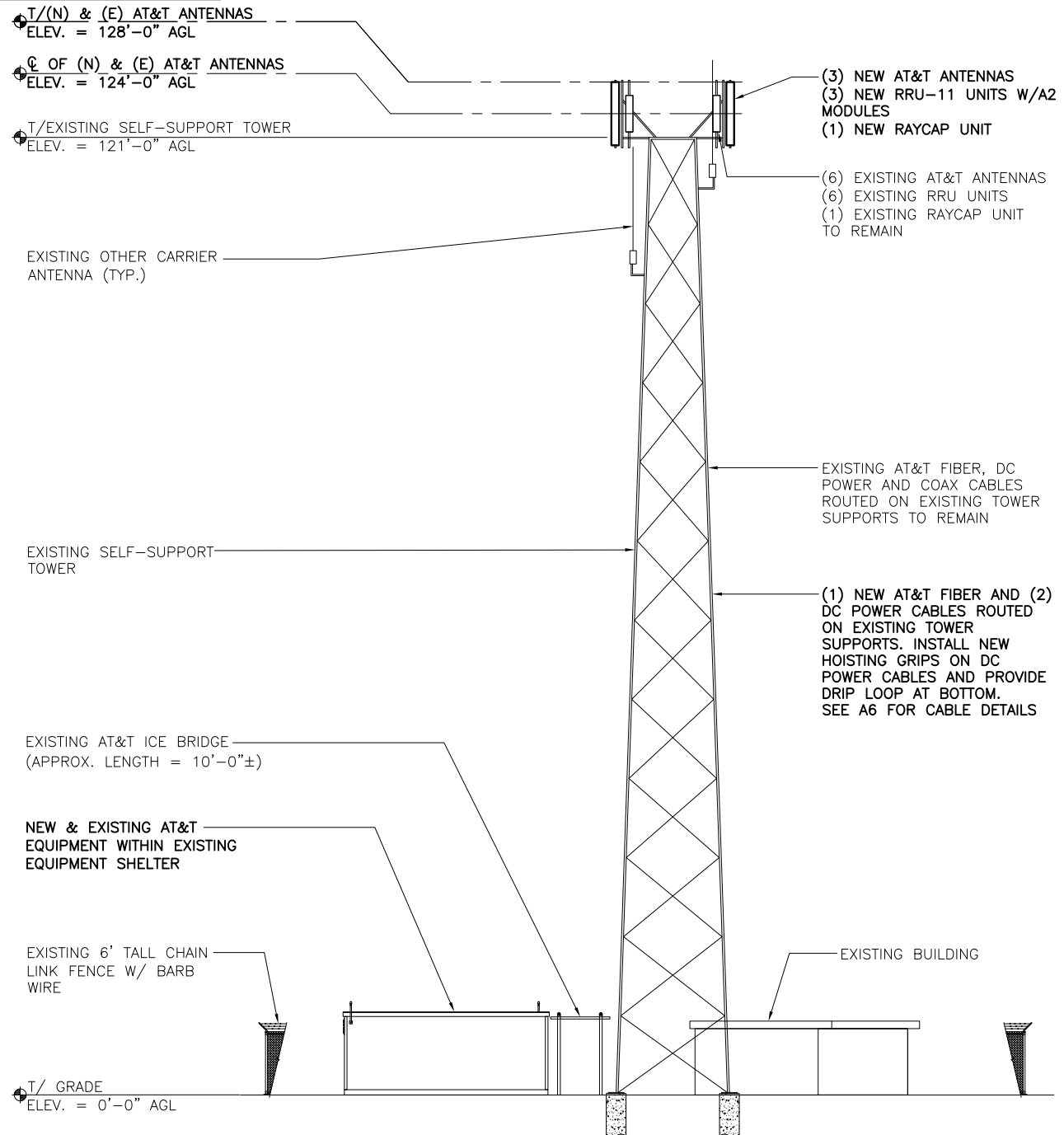
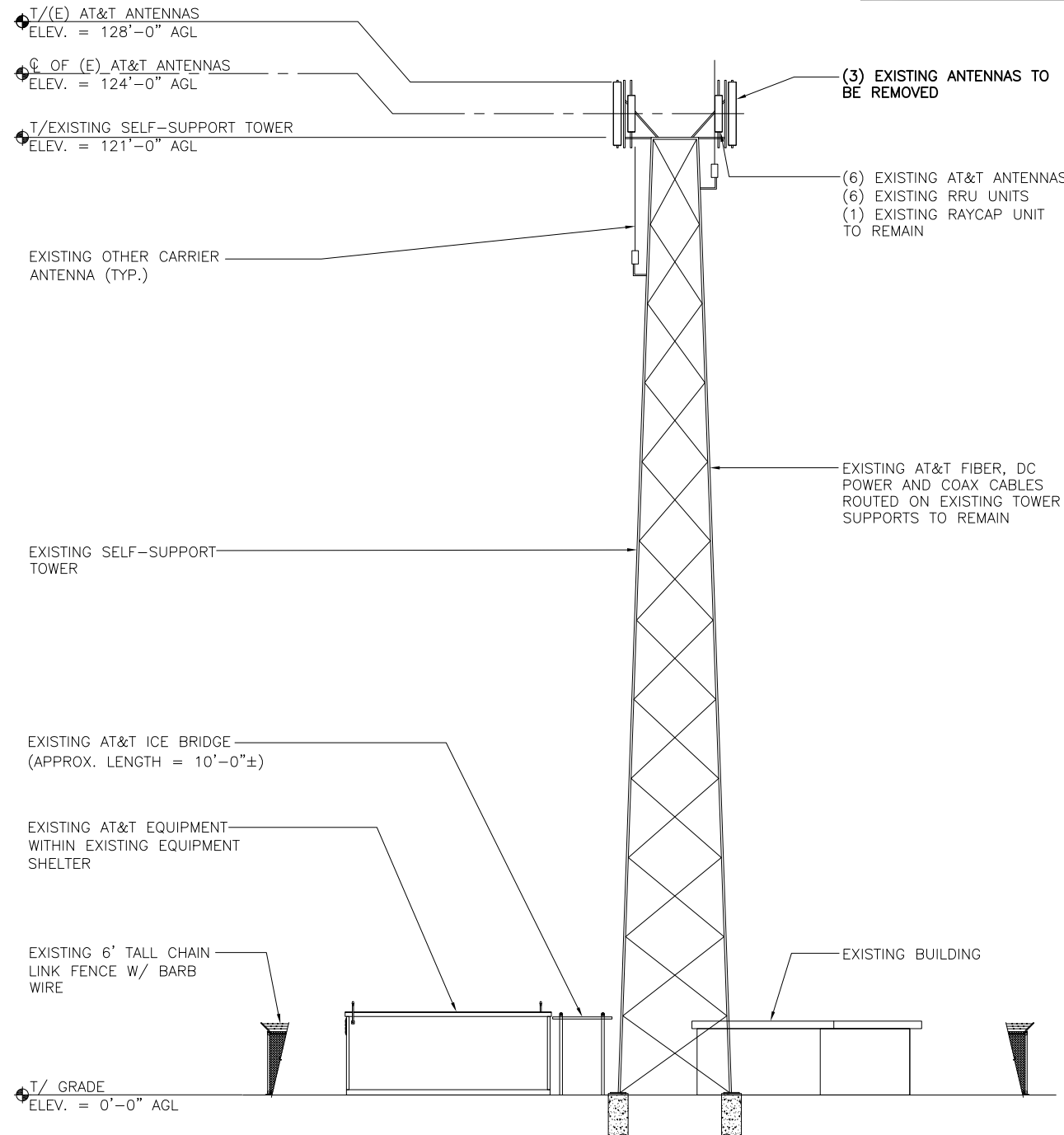
SITE ADDRESS
**244 GATES ROAD
LEBANON, CT 06249**

SHEET NAME
ELEVATIONS

SHEET NUMBER
A3

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



EXISTING ELEVATION

SCALE: 1" = 20'-0"

1

NEW ELEVATION

SCALE: 1" = 20'-0"

2

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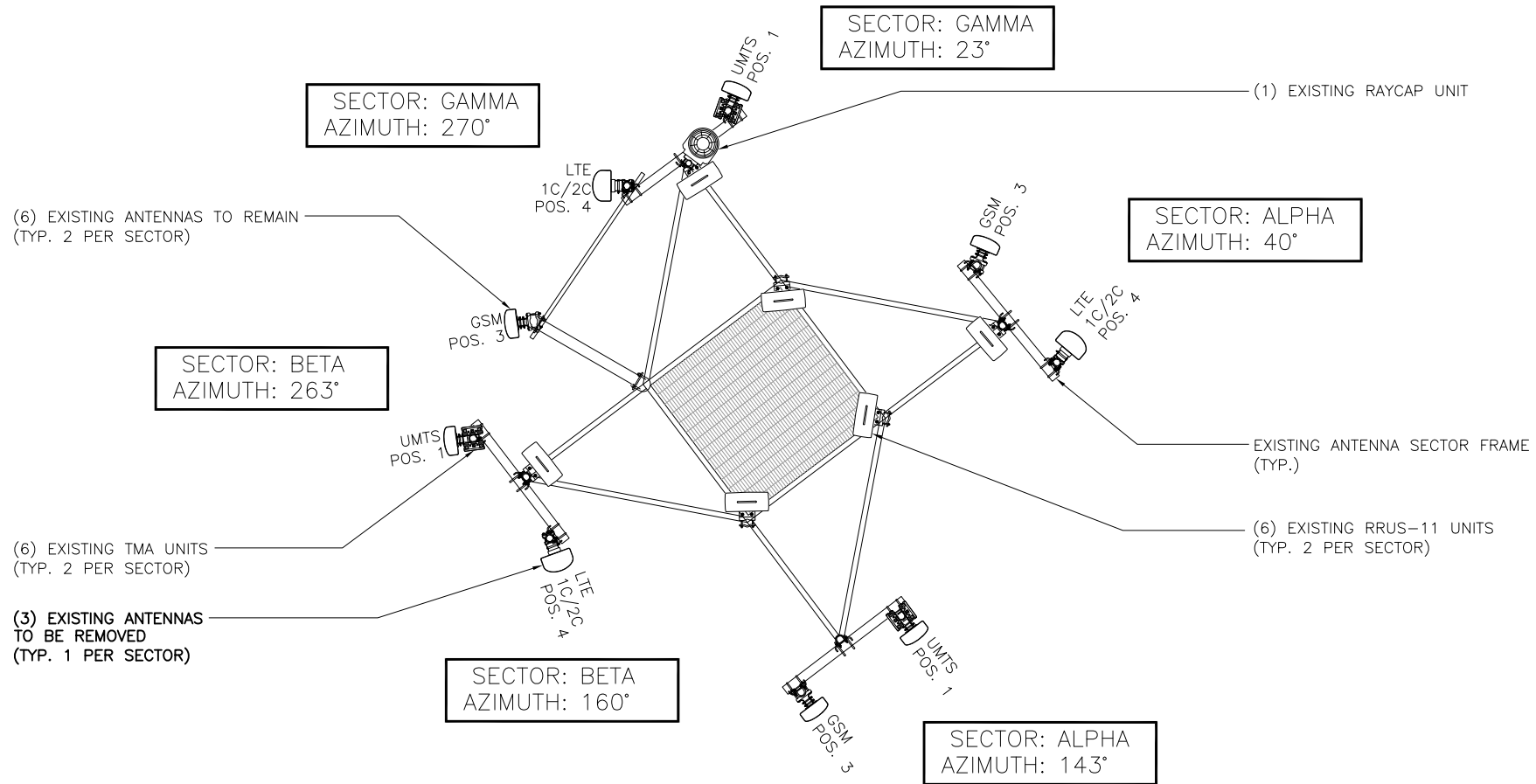
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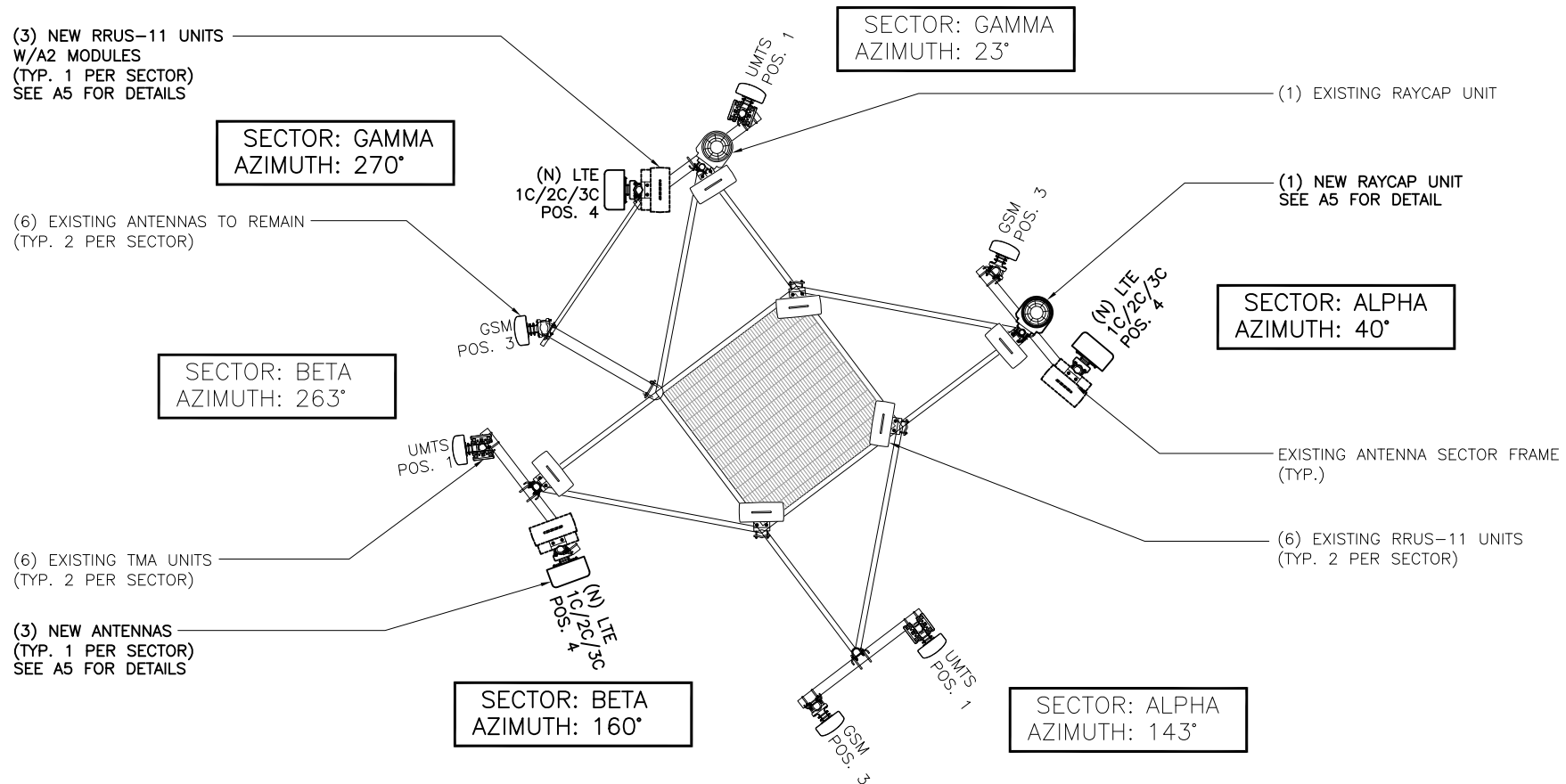
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EXISTING ANTENNA PLAN

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



FINAL ANTENNA PLAN

SCALE: 3/16" = 1'-0" 2

SITE NAME
LEBANON

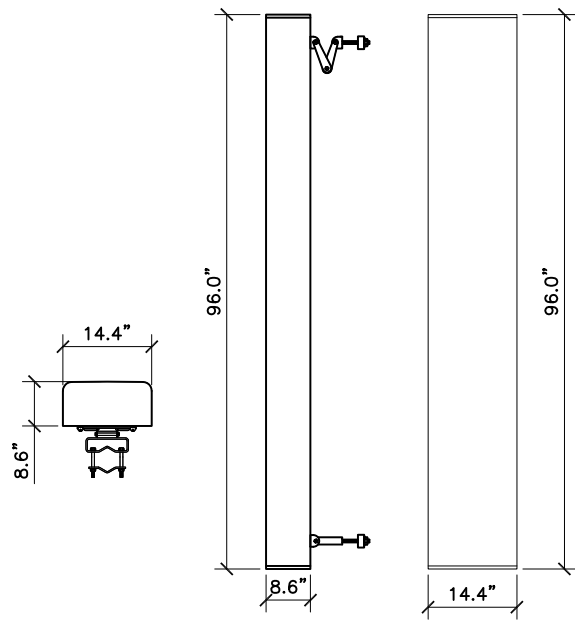
SITE NUMBER:
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SITE ADDRESS
**244 GATES ROAD
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SHEET NAME
**ANTENNA
PLANS**

SHEET NUMBER
A4

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PLAN VIEW SIDE VIEW FRONT VIEW

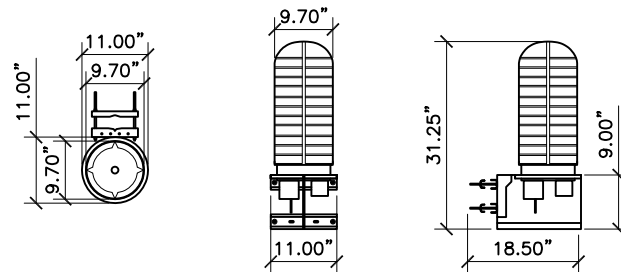
TPA-65R-LCUUU-H8

12-PORT MULTI-BAND ANTENNA

FREQUENCY RANGE
 698-798 MHz
 824-896 MHz
 1850-1990 MHz
 1695-1780/2110-2180 MHz
 2305-2360 MHz

ANTENNA WITH BRACKET
 75 Lbs
 85 Lbs

NOMINAL OPERATING VOLTAGE: 48 VDC
 NOMINAL DISCHARGE CURRENT: 20 kA 8/20ms
 MAXIMUM DISCHARGE CURRENT: 60 kA 8/20ms
 MAXIMUM CONTINUOUS OPERATING VOLTAGE: 75 VDC
 VOLTAGE PROTECTION RATING: 400 V
 WIND LOADING: 150 MPH SUSTAINED (105.7 lbs)
 195 MPH GUST (213.6 lbs)



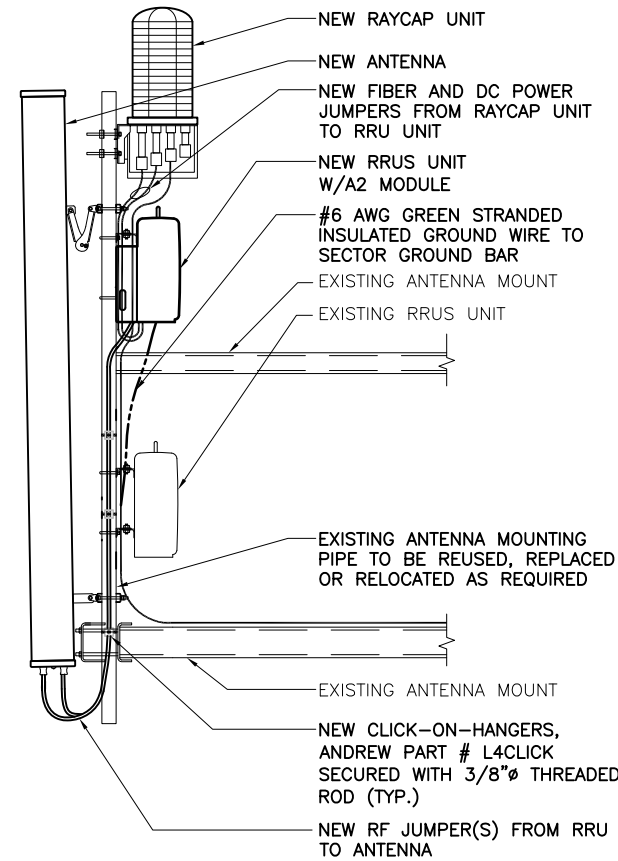
PLAN VIEW FRONT VIEW SIDE VIEW

RAYCAP - DC6-48-60-0-8F

TOWER DC OVER VOLTAGE PROTECTION POWER CONNECTION SOLUTION

UNIT WEIGHT 32.8 Lbs

CONTRACTOR TO USE "THREAD LUBRICANT" ON MOUNTING BOLTS DURING INSTALLATION ON EXISTING STRUCTURAL MEMBER



ANTENNA SCHEMATIC

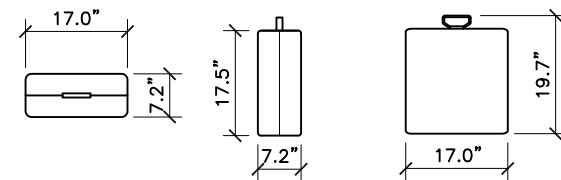
SCALE: N.T.S.

3

NOT USED

SCALE: N.T.S.

3

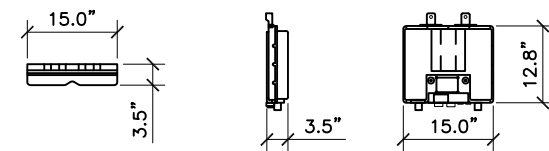


PLAN VIEW SIDE VIEW FRONT VIEW

ERICSSON - RRUS 11

WITH SOLAR SHIELD

UNIT WEIGHT 50 Lbs



PLAN VIEW SIDE VIEW FRONT VIEW

ERICSSON - RRUS A2 MODULE

UNIT WEIGHT 22 Lbs

NOT USED

SCALE: N.T.S.

7

NOT USED

SCALE: N.T.S.

7



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SITE NAME

LEBANON

SITE NUMBER:

CTL01065

SITE ADDRESS

244 GATES ROAD
 LEBANON, CT 06249

SHEET NAME

**EQUIPMENT
 DETAILS**

SHEET NUMBER

A5

ANTENNA SPEC

SCALE: N.T.S.

1

RAYCAP SPEC

SCALE: N.T.S.

2

RRU SPEC

SCALE: N.T.S.

5

A2 BOX SPEC

SCALE: N.T.S.

6

NOT USED

SCALE: N.T.S.

7

NOT USED

SCALE: N.T.S.

7



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SITE NAME

LEBANON

SITE NUMBER:

CTL01065

SITE ADDRESS

244 GATES ROAD
LEBANON, CT 06249

SHEET NAME

**ANTENNA &
CABLE
CONFIGURATION**

SHEET NUMBER

A6

**FINAL ANTENNA CONFIGURATION AND CABLE SCHEDULE
SUPPLIED BY AT&T WIRELESS, FROM RF CONFIG. DATED (01/21/16)**

SECTOR	ANTENNA NUMBER	ANTENNA STATUS & TYPE	ANTENNA MODEL NUMBER	ANTENNA VENDOR	TMA/RRU UNIT	AZIMUTH	ANTENNA CL FROM GROUND	CABLE FEEDER		RAYCAP UNIT
								TYPE	LENGTH	
ALPHA	A-1	(E) UMTS ANTENNA	7770	POWERWAVE	(2) EXISTING TMA UNITS	143°	180'-0"	1-5/8"φ LDF7-50A	180'-0"	(1) (E) DC6-48-60-18-8F UNIT (1) (N) DC6-48-60-18-8F UNIT
	A-2	-	-	-	-	-	-	-	-	
	A-3	(E) GSM ANTENNA	7770	POWERWAVE	-	143°	180'-0"	1-5/8"φ LDF7-50A	180'-0"	
	A-4	(N) LTE 1C/2C/3C ANTENNA	TPA-65-LCUUUU-H8	CCI	(1) NEW RRUS-11 UNIT W/A2 MODULES (2) EXISTING RRUS-11 UNITS	40°	180'-0"	(1) NEW FIBER (2) NEW DC POWER CABLES (1) EXISTING FIBER (2) EXISTING DC POWER CABLES	180'-0"	
BETA	B-1	(E) UMTS ANTENNA	7770	POWERWAVE	(2) EXISTING TMA UNITS	263°	180'-0"	1-5/8"φ LDF7-50A	180'-0"	
	B-2	-	-	-	-	-	-	-	-	
	B-3	(E) GSM ANTENNA	7770	POWERWAVE	-	263°	180'-0"	1-5/8"φ LDF7-50A	180'-0"	
	B-4	(N) LTE 1C/2C/3C ANTENNA	TPA-65-LCUUUU-H8	CCI	(1) NEW RRUS-11 UNIT W/A2 MODULES (2) EXISTING RRUS-11 UNITS	160°	180'-0"	SEE ANTENNA A-4 FOR CABLE TYPE AND LENGTH		
GAMMA	C-1	(E) UMTS ANTENNA	7770	POWERWAVE	(2) EXISTING TMA UNITS	23°	180'-0"	1-5/8"φ LDF7-50A	180'-0"	
	C-2	-	-	-	-	-	-	-	-	
	C-3	(E) GSM ANTENNA	7770	POWERWAVE	-	23°	180'-0"	1-5/8"φ LDF7-50A	180'-0"	
	C-4	(N) LTE 1C/2C/3C ANTENNA	TPA-65-LCUUUU-H8	CCI	(1) NEW RRUS-11 UNIT W/A2 MODULES (2) EXISTING RRUS-11 UNITS	270°	180'-0"	SEE ANTENNA A-4 FOR CABLE TYPE AND LENGTH		

1. CONTRACTOR IS TO REFER TO AT&T'S MOST CURRENT RADIO FREQUENCY DATA SHEET (RFDS) PRIOR TO CONSTRUCTION.
2. THE SIZE, HEIGHT, AND DIRECTION OF THE ANTENNAS SHALL BE ADJUSTED TO ACHIEVE THE AZIMUTHS SPECIFIED AND LIMIT SHADOWING AND TO MEET THE SYSTEM REQUIREMENTS.
3. CONTRACTOR SHALL VERIFY THE HEIGHT OF THE ANTENNA WITH THE AT&T WIRELESS PROJECT MANAGER.
4. VERIFY TYPE AND SIZE OF TOWER LEG PRIOR TO ORDERING ANY ANTENNA MOUNT.
5. UNLESS NOTED OTHERWISE THE CONTRACTOR MUST PROVIDE ALL MATERIAL NECESSARY.
6. ANTENNA AZIMUTHS ARE DEGREES OFF OF TRUE NORTH, BEARING CLOCKWISE, IN WHICH ANTENNA FACE IS DIRECTED. ALL ANTENNAS (AND SUPPORTING STRUCTURES AS PRACTICAL) SHALL BE ACCURATELY ORIENTED IN THE SPECIFIED DIRECTION.
7. CONTRACTOR SHALL VERIFY ALL RF INFORMATION PRIOR TO CONSTRUCTION.
8. SWEEP TEST SHALL BE PERFORMED BY GENERAL CONTRACTOR AND SUBMITTED TO AT&T WIRELESS CONSTRUCTION SPECIALIST. TEST SHALL BE PERFORMED PER AT&T WIRELESS STANDARDS.
9. CABLE LENGTHS WERE DETERMINED BASED ON THE DESIGN DRAWING. CONTRACTOR TO VERIFY ACTUAL LENGTH DURING PRE-CONSTRUCTION WALK.
10. CONTRACTOR TO USE ROSENBERGER FIBER LINE HANGER COMPONENTS (OR ENGINEER APPROVED EQUAL).



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SITE NAME
LEBANON

SITE NUMBER:
CTL01065

SITE ADDRESS
244 GATES ROAD
LEBANON, CT 06249

SHEET NAME
**CABLE NOTES
AND COLOR
CODING**

SHEET NUMBER
A7

ANTENNA AND CABLING NOTES

SCALE: N.T.S. 1

RF, DC, & COAX CABLE MARKING LOCATIONS TABLE	
NO	LOCATIONS
①	EACH TOP-JUMPER SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS.
②	EACH MAIN COAX SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS NEAR THE TOP-JUMPER CONNECTION AND WITH (1) SET OF 3/4" WIDE COLOR BANDS JUST PRIOR TO ENTERING THE BTS OR TRANSMITTER BUILDING.
③	CABLE ENTRY PORT ON THE INTERIOR OF THE SHELTER.
④	ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF THE BOTTOM JUMPER.
⑤	ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF THE BOTTOM JUMPER.

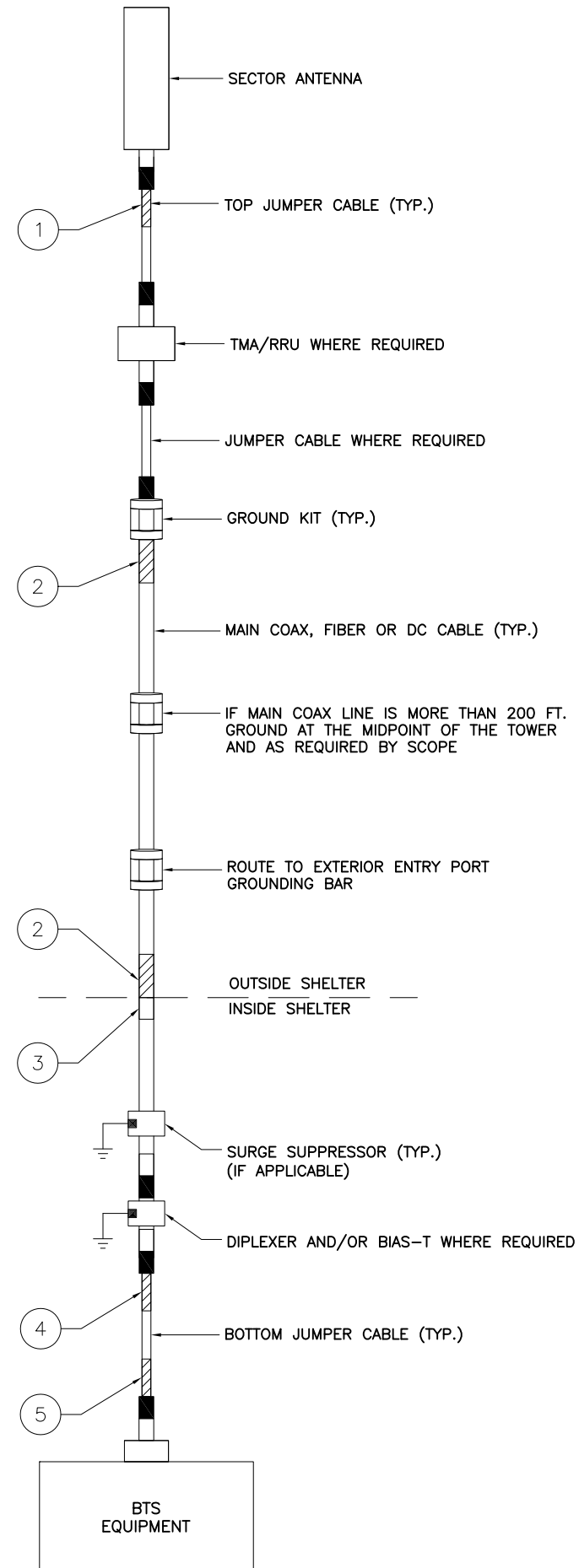
CABLE MARKING DIAGRAM

SCALE: N.T.S. 2

1. THE ANTENNA SYSTEM COAX SHALL BE LABELED WITH VINYL TAPE.
2. THE STANDARD IS BASED ON EIGHT COLORED TAPES-RED, BLUE, GREEN, YELLOW, ORANGE, BROWN, WHITE, AND VIOLET. THESE TAPES MUST BE 3/4" WIDE & UV RESISTANT SUCH AS SCOTCH 35 VINYL ELECTRICAL COLOR CODING TAPE AND SHOULD BE READILY AVAILABLE TO THE ELECTRICIAN OR CONTRACTOR ON SITE.
3. USING COLOR BANDS ON THE CABLES, MARK ALL RF CABLE BY SECTOR AND CABLE NUMBER AS SHOWN ON "CABLE COLOR CHART".
4. WHEN AN EXISTING COAXIAL LINE THAT IS INTENDED TO BE A SHARED LINE BETWEEN TECHNOLOGIES IS ENCOUNTERED, THE CONTRACTOR SHALL REMOVE THE EXISTING COLOR CODING SCHEME AND REPLACE IT WITH THE COLOR CODING STANDARD. IN THE ABSENCE OF AN EXISTING COLOR CODING AND TAGGING SCHEME, OR WHEN INSTALLING PROPOSED COAXIAL CABLES, THIS GUIDELINE SHALL BE IMPLEMENTED AT THAT SITE REGARDLESS OF TECHNOLOGY.
5. ALL COLOR CODE TAPE SHALL BE 3M-35 AND SHALL BE INSTALLED USING A MINIMUM OF (3) THREE WRAPS OF TAPE AND SHALL BE NEATLY TRIMMED AND SMOOTHED OUT SO AS TO AVOID UNRAVELING.
6. ALL COLOR BANDS INSTALLED AT THE TOP OF THE TOWER SHALL BE A MINIMUM OF 3" WIDE, AND SHALL HAVE A MINIMUM OF 3/4" OF SPACE BETWEEN EACH COLOR.
7. ALL COLOR CODES SHALL BE INSTALLED SO AS TO ALIGN NEATLY WITH ONE ANOTHER FROM SIDE-TO-SIDE.
8. IF EXISTING CABLES AT THE SITE ALREADY HAVE A COLOR CODING SCHEME AND THEY ARE NOT INTENDED TO BE REUSED OR SHARED WITH THE NEW TECHNOLOGY, THE EXISTING COLOR CODING SCHEME SHALL REMAIN UNTOUCHED.

CABLE MARKING NOTES

SCALE: N.T.S. 3



CABLE COLOR CODING DIAGRAM

SCALE: N.T.S. 4

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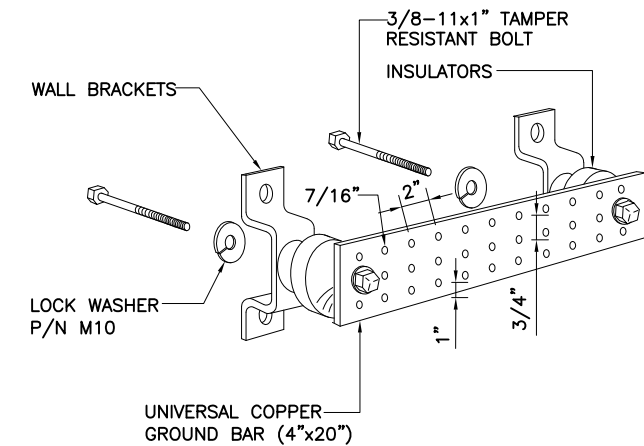
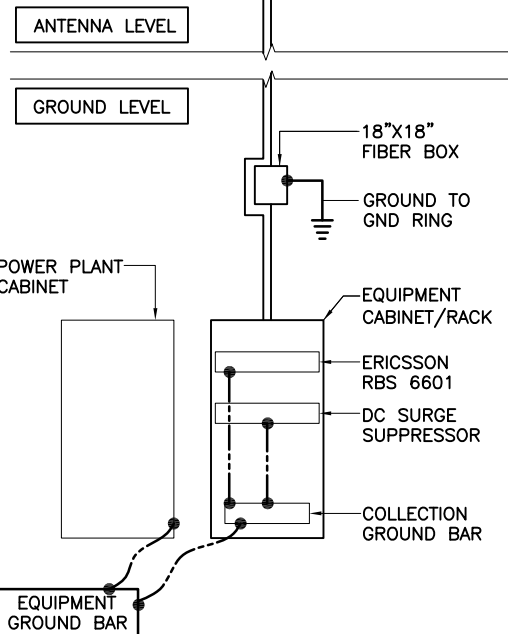
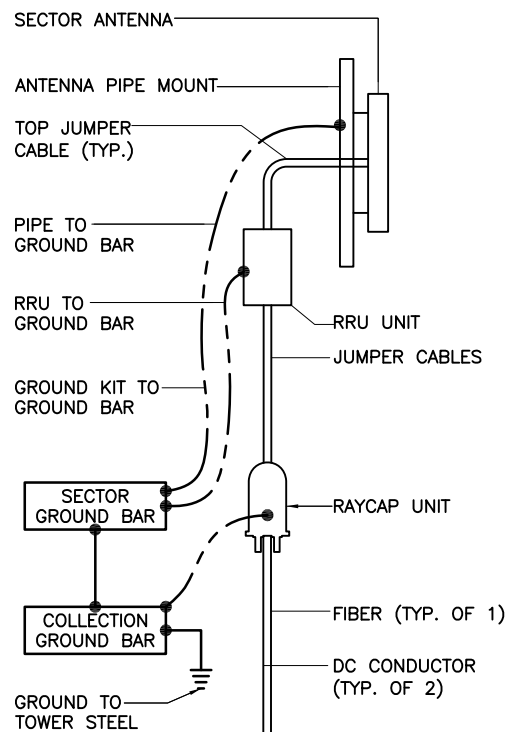
SITE NAME
LEBANON

SITE NUMBER:
CTL01065

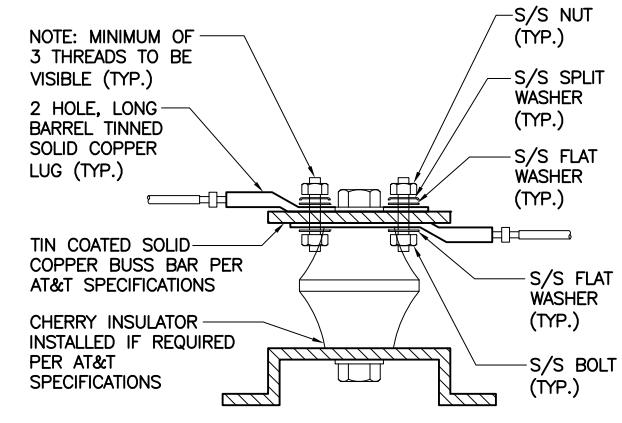
SITE ADDRESS
**244 GATES ROAD
LEBANON, CT 06249**

SHEET NAME
**GROUNDING
DETAILS**

SHEET NUMBER
A8



GROUND BAR DETAIL SCALE: N.T.S. 2



NOTE: MINIMUM OF 3 THREADS TO BE VISIBLE (TYP.)

2 HOLE, LONG BARREL TINNED SOLID COPPER LUG (TYP.)

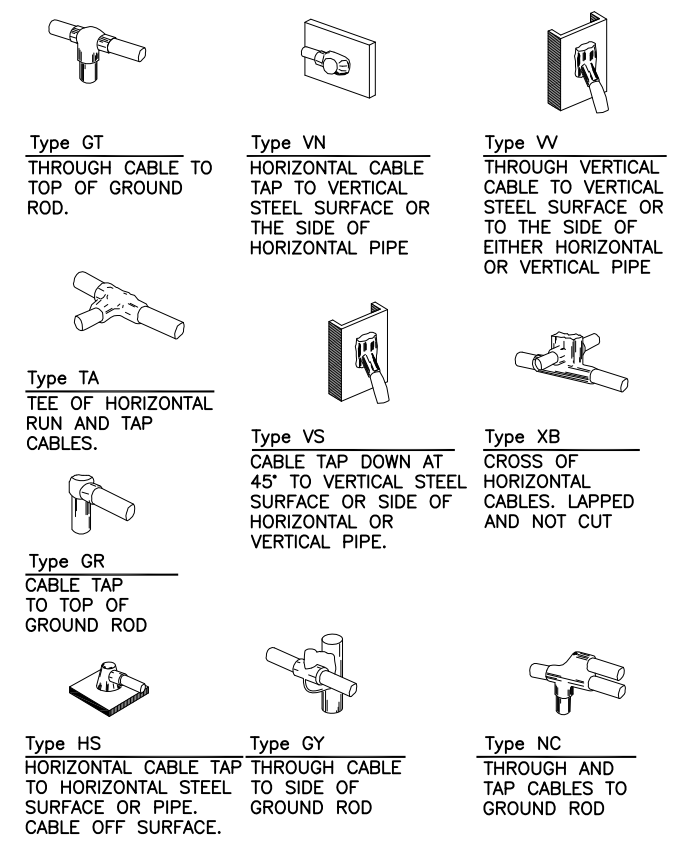
TIN COATED SOLID COPPER BUSS BAR PER AT&T SPECIFICATIONS

CHERRY INSULATOR INSTALLED IF REQUIRED PER AT&T SPECIFICATIONS

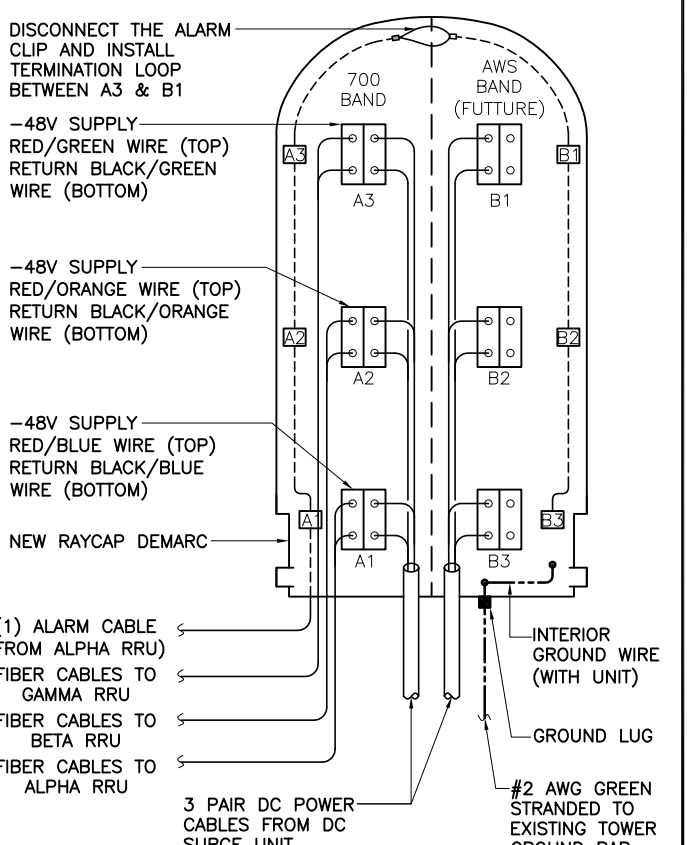
NOTES:

- ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING SPLIT WASHERS.
- COAT WIRE END WITH ANTI-OXIDATION COMPOUND PRIOR TO INSERTION INTO LUG BARREL AND CRIMPING.
- APPLY ANTI-OXIDATION COMPOUND BETWEEN ALL LUGS AND BUSS BARS PRIOR TO MATING AND BOLTING.

LUG DETAIL SCALE: N.T.S. 3



EXOTHERMIC WELD DETAILS SCALE: N.T.S. 4



RAYCAP DC POWER AND ALARM DET. SCALE: N.T.S. 5

NOT USED SCALE: N.T.S. 6

GROUNDING SCHEMATIC SCALE: N.T.S. 1

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STATE OF CONNECTICUT

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Phone: 827-7682

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Executive Assistant

April 10, 1990

Peter J. Tyrrell
Senior Attorney
SNET Cellular, Inc
227 Church Street
New Haven, CT 06506

RE: SNET Cellular Inc., (SCI) Notice of Intent to Modify
an Exempt Tower and Associated Equipment owned by the
Southern New England Telephone Company (SNET) in
Lebanon, Connecticut.

Dear Attorney Tyrrell:

At a meeting on April 9, 1990, the Connecticut Siting Council acknowledged your notice of intent to modify an exempt telecommunications tower and associated equipment located on Gates Road in Lebanon, Connecticut, pursuant to Section 16-50j-73 of the Regulations of State Agencies (RSA).

The proposed modifications are to be implemented as specified in your notice dated March 1, 1990, "Option Two", the replacement of both of the existing 80-foot and 120-foot guyed SNET towers with one self-supporting 120-foot tower. As proposed, the modifications are in compliance with the exception criteria specified in RSA Section 16-50j-72(b)(3) as a replacement of an existing CATV tower or telecommunications tower and associated equipment with a tower that is no taller than the tower to be replaced and that will not support public service company or state antennas, or antennas to be used for public cellular radio communications emitting total radio frequency electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to Section 22a-162 of the Connecticut General Statutes.

Peter J. Tyrrell
April 10, 1990
Page 2

The Council is pleased to note that the shared use of an existing tower meets the Council's long-term goal and the public interest to avoid the proliferation of additional tower structures.

Enclosed for your reference is a copy of the Staff Report on this Exempt Modification, dated April 9, 1990. Please notify the Council upon completion of construction.

Very truly yours,

Gloria Dibble Pond

Gloria Dibble Pond
Chairperson

Enclosure

cc: Donald Chapman

4313E-4



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

136 Main Street, Suite 401
New Britain, Connecticut 06051
Phone: 827-7682

Notice of Intent of Modify an Existing Tower
SNET Cellular, Inc.
Lebanon, Connecticut
April 9, 1990

On March 1, 1990, SNET Cellular Inc. (SCI) submitted to the Siting Council a Notice of Intent to Modify a tower and associated equipment in the Town of Lebanon. On March 7, 1990, Robert A. Pulito of the Siting Council and Joel M. Rinebold and Robert K. Erling of the Council staff visited the Lebanon site on which the proposed modifications would take place. On March 30, 1990, Council members Mortimer A. Gelston and Colin C. Tait visited the site with Council staff members Joel M. Rinebold and Robert K. Erling.

SCI has proposed two options to replace an existing 120-foot guyed telecommunications tower on Gates Road in Lebanon. This tower site would be leased from its current owner, the Southern New England Telephone Company (SNET), and would be used to provide cellular telephone service in New London County, overlapping with coverage from an adjacent cell site in Colchester, and a planned cell site in Ashford.

There are currently four existing guyed towers on two adjacent properties on this hilltop site. Two of these towers are owned by SNET on SNET property containing 1.7 acres. These towers are 80 feet and 120 feet in height. Two towers on an adjacent property of 1.2 acres owned by Colin K. and Loretta L. Rice are 120 feet and 290 feet in height. The 120-foot tower on the Rice property is owned by Tele-Media Company of Northeastern Connecticut, and was certificated by the Council as part of Docket 43 in 1984. The 290-foot tower is owned by radio station WILI.

The 120-foot SNET tower is painted and lighted because it was constructed before the nearby WILI tower, which is also obstruction marked and lighted.

The following guying information was supplied by SCI.

<u>Tower Owner</u>	<u>Height</u>	<u>No. of sets of 3-guy wires</u>	<u>Tower Distance to Farthest guy wires</u>
SNET	80 feet	1	65 feet
SNET	120 feet	3	100 feet
Tele-Media	120 feet	3	80 feet
WILI	290 feet	6	150 feet

Both SNET towers were constructed in 1960. The WILI tower was constructed in 1980, and the Tele-Media tower was built in 1984. All four of these towers were erected prior to the construction of any of the nearby homes on Gates Hill Road. These homes were built between 1987 and 1988.

Option One of SCI involves the replacement of the existing 120-foot SNET tower with another 120-foot guyed tower which has the capacity to support both the existing antennas and new cellular transmit and receive antennas. The existing 120-foot tower cannot accommodate the proposed cellular antennas. The existing 80-foot SNET tower would remain in place.

Option Two of SCI would replace both of the existing SNET towers with a single 120-foot self-supporting tower. The replacement of the two existing towers would mean the removal of 1808 feet of guy wires. The proposed 120-foot tower would measure approximately 10 feet across at its base and taper to six feet at its top. Each of the two existing towers has a width of three feet. The two existing SNET towers would be removed within six months after the installation of the new tower.

Neither Option One nor Option Two would increase the height of a tower on the SNET property, extend the boundaries of the SNET property, increase noise levels at the site boundary, or increase the total radio frequency electromagnetic radiation power density at the tower site boundary to or above the State Standard of 2.933 mW/cm².

SNET does not propose to paint or light the replacement tower or associated dish antennas. SNET has requested the elimination of this painting and lighting requirement for this tower from the Federal Aviation Administration, but has not yet received a response.

A meeting between SCI and the Lebanon Building Inspector indicates that the construction of the new equipment building on the SNET site is a permitted use at this location, requiring a building permit.

Pursuant to Section 16-50j-72(b) of the Connecticut Regulations of State Agencies, "None of the following shall constitute a modification to an existing community antenna television or telecommunications tower that may have substantial adverse environmental effect:

- (1) Routine general maintenance and one-for-one replacement of facility components that is necessary for reliable operation;
- (2) Changes on an existing tower site that do not increase the tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by 6 decibels, and add radio frequency sending or receiving capability which increases the total radio frequency electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to Section 22a-162 of the Connecticut General Statutes; or
- (3) Replacement of an existing CATV tower or telecommunications tower and associated equipment with a tower that is no taller than the tower to be replaced and that will not support public service company or State antennas, or antennas to be used for public cellular radio communications emitting total radio frequency electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to Section 22a-162 of the Connecticut General Statutes.

Robert K. Erling
Senior Siting Analyst

RKE/cp

4237E

Permit No. 0822

Zone: RA

TOWN OF LEBANON

Building Permit Record Date: 5-15-90

VALID FOR ONE YEAR

Owner: Southern New England Telephone ATTN: Mr. R. Aschacki
Address: 195 Church Street, New Haven, CT 06510 Phone: 771-5926

DESCRIPTION

New: Addition: Accessory: Remodel: Alteration: Other: Seasonal: Year Round:

New Recast Telephone Equipment Bldg. and new Tower. Bldg unoccupied. No water!

The applicant agrees to conform to all requirements of the laws of the State of Conn. and all ordinances and zoning regulations of the Town of Lebanon, and to notify the Building Official of any changes in specifications for which this permit is issued, and to obtain a certificate of occupancy before using this structure.

INSPECTION REQUIRED

Class: <u>S-B</u>	Flooring: <u>Concrete</u>	Tile Bath:	Lot No.:
Type: <u>3C</u>	Int. Walls: <u>Concrete</u>	Walls:	Lot Size:
No. of Rms: <u>1</u>	Electrical:	Shower:	Set Back: <u>See plan</u>
No. of Stories: <u>1</u>	No. of Bathrooms:	Floors:	Side Yard:
Floor Area: <u>312 1/4</u>	No. of Toilet Rms.:	Heating:	Back Yard:
Foundation: <u>Concrete</u>	Plumbing Fixtures:	Wa. Htg:	Sub-Div.:
Construction: <u>Concrete</u>	Sink:	Stm. Htg:	Hot Water Supply
Ext. Walls: <u>Concrete</u>	Toilets:	H. W. Htg:	Fireplace:
Roofing: <u>Concrete</u>	Basins:	Space Htg:	City Water:
Basement: <u>1</u>	Bathtubs:	Fuel:	Well Water:
	Shr stall:	Oil:	Septic:
		Gas:	Sewer:
		Elec.:	
		Air Cond.:	

Separate Permits Required: Elect, Heat, Plumb, Septic, Well, Stove, All Masonry

Architect: <u>Bayer & Associates, Engineers</u>	Est Cost: <u>71,000.00</u>
Address: <u>109 Montgomery Ave, Scarsdale, NY</u>	
Builder: <u>Thomas Corp.</u> License #:	\$5 per 1,000 Est Cost. <u>355.00</u>
Address: <u>P.O. Box 2159 Vernon, Ct. 06066</u>	\$10 Minimum Charge
Applicant's and/or Owner: Signature: <u>Edward M. Ripain</u>	Total: <u>355.00</u>
Issued by Building Inspector: <u>Wald C. Plan</u>	
Zoning Officer: <u>Greg Anderson</u>	