



July 5, 2022

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

Re: Exempt Modification Application – AT&T Site 13753210
AT&T Mobility Telecommunications Facility @ 664 Rimmon Hill Road, Seymour, CT 06403

Dear Ms. Bachman,

AT&T is proposing a wireless telecommunications facility on an existing monopole tower at 664 Rimmon Hill Road, Seymour, CT 06403. Enclosed please find Check Number 034947 in the amount of Six Hundred and Twenty Five Dollars (\$625.00); an original and two (2) copies of the following documents: the CSC Exempt Mod letter; a Letter of Authorization from tower owner; the Property Card and GIS data of the property; a set of Construction Drawings; a Structural Analysis Report; an Antenna Mount Analysis Report; an EME Study Report; and Four (4) Notice Confirmations.

I will email a .pdf copy of these documents to the Council.

If you have any questions, please feel free to contact me; I can be reached at 443-677-0144 or via email at jmandrews@clinellc.com. Thank you for your kind cooperation in this matter

Respectfully Submitted,

A handwritten signature in blue ink, appearing to read 'Jack Andrews', is written over a circular blue stamp or seal.

Jack Andrews
Zoning Manager, Centerline Communications
10130 Donleigh Drive
Columbia, MD 21046
443-677-0144



June 27, 2022

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

Re: Exempt Modification Application – AT&T Site 13753210
AT&T Mobility Telecommunications Facility @ 664 Rimmon Hill Road, Seymour, CT 06403

Dear Ms. Bachman,

New Cingular Wireless, PCS, LLC (dba AT&T) currently maintains antennas on a wireless telecommunications facility on an existing American Tower Corporation (ATC) telecommunications tower at the above referenced address. AT&T desires to modify its existing equipment as described in the attached Construction and Antenna Mount Modification Drawings:

- Remove nine (9) antennas, three (3) RRHs, three (3) TMAs, and six (6) coax cables;
- Install mount modifications, twelve (12) antennas, seven (7) RRHs, one (1) squid, one (1) fiber trunk, three (3) DC trunks, three (3) Y cables and two (2) conduits.

Please accept this letter 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), and as notification pursuant to Regulations of Connecticut State Agencies 16-50aa, of AT&T's intent to modify a telecommunications facility pursuant to R.C.S.A. 16-50j-88. In accordance with R.C.S.A §16-50j-73, a copy of this letter is being sent to the following individuals: American Tower Corporation as Tower Operator/Owner; The Weed Family LLC, as Property Owner; the Honorable Gerard Smith, as First Selectman of Beacon Falls, and Keith Rosenfeld, the Town Planner.

The applicant's proposal falls squarely within those activities explicitly provided for in R.C.S.A. §16-50j-89. Specifically:

1. The proposed modifications will NOT result in an increase in the height of the existing structure.
2. The proposed modifications will NOT require an extension of the site boundary.
3. The proposed modifications will NOT increase 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 emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. Please see the RF emissions calculation for AT&T's modified facility enclosed herewith.
5. The proposed modifications will NOT cause an ineligible change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading. Please see the structural analysis enclosed herewith.



For the foregoing reasons, AT&T respectfully requests that the Council approve this Exempt Modification request for this tower located at 664 Rimmon Hill Road, Seymour, CT 06403. If you have any questions, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Jack Andrews', is written over the printed name.

Jack Andrews
Zoning Manager, Centerline Communications
443-677-0144

Enclosures: Exhibit 1 – Letter of Authorization from tower owner
Exhibit 2 – Property Card and GIS
Exhibit 3 – Construction and Mount Modification Drawings
Exhibit 4 – Structural Analysis Report
Exhibit 5 – Antenna Mount Analysis Report (failing)
Exhibit 6 – EME Study Report
Exhibit 7 – Four (4) Notice Confirmations

cc: American Tower Corporation - Tower Operator/Owner
The Weed Family LLC - Property Owner
The Honorable Gerard Smith - First Selectman of Beacon Falls
Keith Rosenfeld – Beacon Falls Town Planner

WEED FAMILY LLC
 54 DUBLIN HILL ROAD
 SOUTHBURY, CT 06488
 Census: 3411

Neighborhood Number
 1

Neighborhood Name
 Southwest

TAXING DISTRICT INFORMATION

Jurisdiction Name BEACON FALLS
 Area 006
 Routing Number 001-005-0006

Transfer of Ownership

Owner	Consideration	Transfer Date	Deed Type	Deed Book/Page
MITCHELL LAURA W & WEED WILBUR & JOAN N	0	01/15/2021	Q	237 496
	0	12/05/2019		231 120
	0	11/01/1991	Q	81 596

Site Description

Topography
 Level

Public Utilities
 Electric

Street or Road
 Paved

Neighborhood
 Static

Zoning:
 R-1

Legal Acres:
 61.4000

Valuation Record

Assessment Year	2006	2007	2011	2016	2021			
Reason for Change	2006 Reval	2007	2011 Reval	2016 Reval	2021 Reval			
2016 Market L	499420	499420	436040	369750	343650			
I	207300	207300	203540	200580	250720			
T	706720	706720	639580	570330	594370			
70% Assessed L	114390	114390	112030	98950	128350			
I	145120	145120	142470	140420	175500			
T	259510	259510	254500	239370	303850			



Land Size

Land Type	Rating, Soil ID - or - Actual Frontage	Acreage - or - Effective Frontage	Square Feet - or - Effective Depth	Influence Factor
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Homesite		1.0300		
Res Excess Acres		60.0000		
PA490 Farm		60.0000		
Secondary Comm/Indust Land		0.3700		

Physical Characteristics

Style: Colonial
 Occupancy: Single family
 Story Height: 2.0
 Finished Area: 1436
 Attic: Unfinished
 Basement: 3/4

ACCOMMODATION
 Finished Rooms 8
 Bedrooms 4
 Formal Dining Rooms 1
 HEATING AND AIR CONDITIONING
 Primary Heat: Forced Hot Air-gas
 Lower Full Part
 /Bsmt 1 Upper Upper

ROOFING
 Material: Asphalt shingles
 Type: Gable
 Framing: Std for class
 Pitch: Not available

PLUMBING
 # TF
 3 Fixt. Baths 1 3
 Kit Sink 1 1
 Water Heat 1 1
 TOTAL 5

FLOORING
 Slab B
 Sub and joists 1.0, 2.0, A
 Concrete B
 Carpet 1.0, 2.0
 Unfinished A
 Dirt B

REMODELING AND MODERNIZATION
 Amount Date

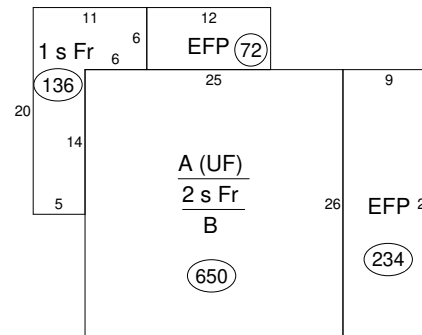
EXTERIOR COVER
 Wood Shingle 1.0, 2.0, A

INTERIOR FINISH
 Unfinished B, A
 Plaster 1.0, 2.0

Tax ID 001-005-0006

Printed 04/15/2022

03 NV 06 NV
 05
 04 08
 01 07



Special Features

Description

01 : Half bath, Lvg qtrs, half story
 05 : Four sides open

Summary of Improvements

ID	USE	Story Height	Const Type	Grade	Year Cons	Eff Year	Cond	Size or Area
D	DWELL	0.00		AVG	1900	1980	AV	2736
01	DETGAR	1.50	4	Good	1940	1975	AV	26x 27
03	BANKBARN	1.00		LOW	1900	1900	VP	26x 18
04	DETGAR	1.00	1	VG	1993	1993	AV	24x 35
05	POLEBARN	1.00	1	AVG	1900	1900	AV	80x 20
06	DAIRY	1.00	1	AVG	1900	1900	VP	29x 30
07	DAIRY	1.00	1	AVG	1900	1900	VP	26x 30
08	DAIRY	1.00	1	AVG	1900	1900	FR	35x 69



AMERICAN TOWER®
CORPORATION
LETTER OF AUTHORIZATION

CENTERLINE COMMUNICATIONS LLC/ AT&T MOBILITY

I, Margaret Robinson, Vice President, US Tower Legal Division on behalf of American Tower*, owner/operator of the tower facility located at the address identified below (the "Tower Facilities"), do hereby authorize AT&T MOBILITY, CENTERLINE COMMUNICATIONS LLC, its successors and assigns, to act as American Tower's non-exclusive agent for the purpose of filing and securing any zoning, land-use, building permit and/or electrical permit application(s) and approvals of the applicable jurisdiction for and to conduct the construction of the installation of antennas and related telecommunications equipment on the Tower Facility located at the above address. This installation shall not affect adjoining lands and will occur only within the area leased by American Tower.

American Tower understands that the application may be denied, modified or approved with conditions. The above authorization is limited to the acceptance by American Tower of conditions related to American Tower's installation. Any such conditions of approval or modifications will not be effective unless approved in writing by American Tower.

The above authorization does not permit AT&T MOBILITY, CENTERLINE COMMUNICATIONS LLC to modify or alter any existing permit(s) and/or zoning or land-use conditions or impose any additional conditions unrelated to American Tower's installation of telecommunications equipment without the prior written approval of American Tower.

*American Tower includes all affiliates and subsidiaries of American Tower Corporation.


ATC Asset #	Site Name	Project Number	Site Address
283420	STONEBROOK RD CT	13682835	23 Stonybrook Road, Stratford, Connecticut
243036	WEST HAVEN & RT 162 CT	13682841	668 Jones Hill Road, West Haven, Connecticut
302479	Rkhl - Rocky Hill	13683394	699 West Street, Rocky Hill, Connecticut
302537	Middletown CT 3	13747862	47 Inwood Road, Rocky Hill, Connecticut
302535	Milford CT 2	13748383	185 Research Drive, Milford, Connecticut
302473	E H F R - Prestige Park	13748397	310 Prestige Park Road, East Hartford, Connecticut
302505	Wshn - West Haven	13748405	204 Burwell Street, West Haven, Connecticut
302489	Enfd - Enfield	13753208	77 Town Farm Road, Enfield, Connecticut
302524	Beacon Falls	13753210	664 Rimmon Hill Road, Seymour, Connecticut
310968	WSPT-WESTPORT REBUILD CT	13753216	180A Bayberry Lane, Westport, Connecticut
302526	Naugatuck (telephone Pole)	13753218	585 South Main St. (soc. Club), Naugatuck, Connecticut
310972	WATERFORD REBUILD CT	13753547	15 Miner Lane, Waterford, Connecticut
302538	Parsonage Hill Aka Wallin	13753549	922 Northrop Road, Wallingford, Connecticut
370624	Mankes Silo	13754283	1338 Highland Ave, Cheshire, Connecticut



AMERICAN TOWER®
CORPORATION

88017	SHELTON-TRUMBULL	13755484	14 OXFORD DRIVE/BOOTH HILL RD, Shelton, Connecticut
414240	Byram Park CT	13755490	48 RITCH AVENUE WEST, Greenwich, Connecticut
283423	NAUGATUCK CT	13755758	880 Andrew Mountain Road, Naugatuck, Connecticut
302480	Woodbridge CT 1	13756843	77 Pease Road, Woodbridge, Connecticut
411183	WATERFORD CT	13756866	53 Dayton Rd. Waterford, Connecticut
302540	Madison CT 6	13757740	8 Old 79, Madison, Connecticut
411259	CT Collinsville CAC 802816 CT	13757764	650 Albany Turnpike, Collinsville, Connecticut
411256	CANTON CT	13757774	14 CANTON SPRINGS ROAD, Canton, Connecticut
302493	Nrwc - Norwich	13757776	225 Rogers Road, Norwich, Connecticut
302476	Wtbr - Waterbury	13757794	352 Garden Circle, Waterbury, Connecticut
302475	Sttn - Southington	13757796	80 Shuttle Meadow Road, Southington, Connecticut
302494	Hddm - Haddam	13757798	139 Morris Hubbard Rd, Higganum, Connecticut
283419	PINE ORCHARD BRANFORD CT	13757800	123 Pine Orchard Road, Branford, Connecticut
302482	North Havent CT 1	13757802	15 Dewight Street, North Haven, Connecticut
302485	Mdfd - Middlefield	13757806	134 Kikapoo Road, Middlefield, Connecticut
302500	Brst - Bristol	13757810	790 Willis Street, Bristol, Connecticut
302467	Bilkays Express	13757812	90 North Plains Industrial Rd. Wallingford, Connecticut
302536	Cherry Hill-branford	13759895	4 Beaver Road, Brandford, Connecticut
302482	North Havent CT 1	14050356	15 Dewight Street, North Haven, Connecticut
311305	GLFD-GUILFORD REBUILD CT	14050358	10 Tanner Marsh Road, Guilford, Connecticut
411261	CROMWELLSW CT	14089799	99 Christian Hill Road, Cromwell, Connecticut
302481	Hrfr - South	14090117	289 Mountain Street, Hartford, Connecticut

Signature: _____


Margaret Robinson, Vice President
US Tower Legal Division

See attached Notary Block



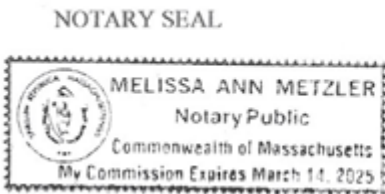
**LETTER OF AUTHORIZATION
CENTERLINE COMMUNICATIONS LLC/ AT&T MOBILITY**

NOTARY BLOCK

COMMONWEALTH OF MASSACHUSETTS
County of Middlesex

This instrument was acknowledged before me by Margaret Robinson, Vice President, UST Legal of American Tower (Tower Facility owner), personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same.

WITNESS my hand and official seal, this 30th day of June, 2022.



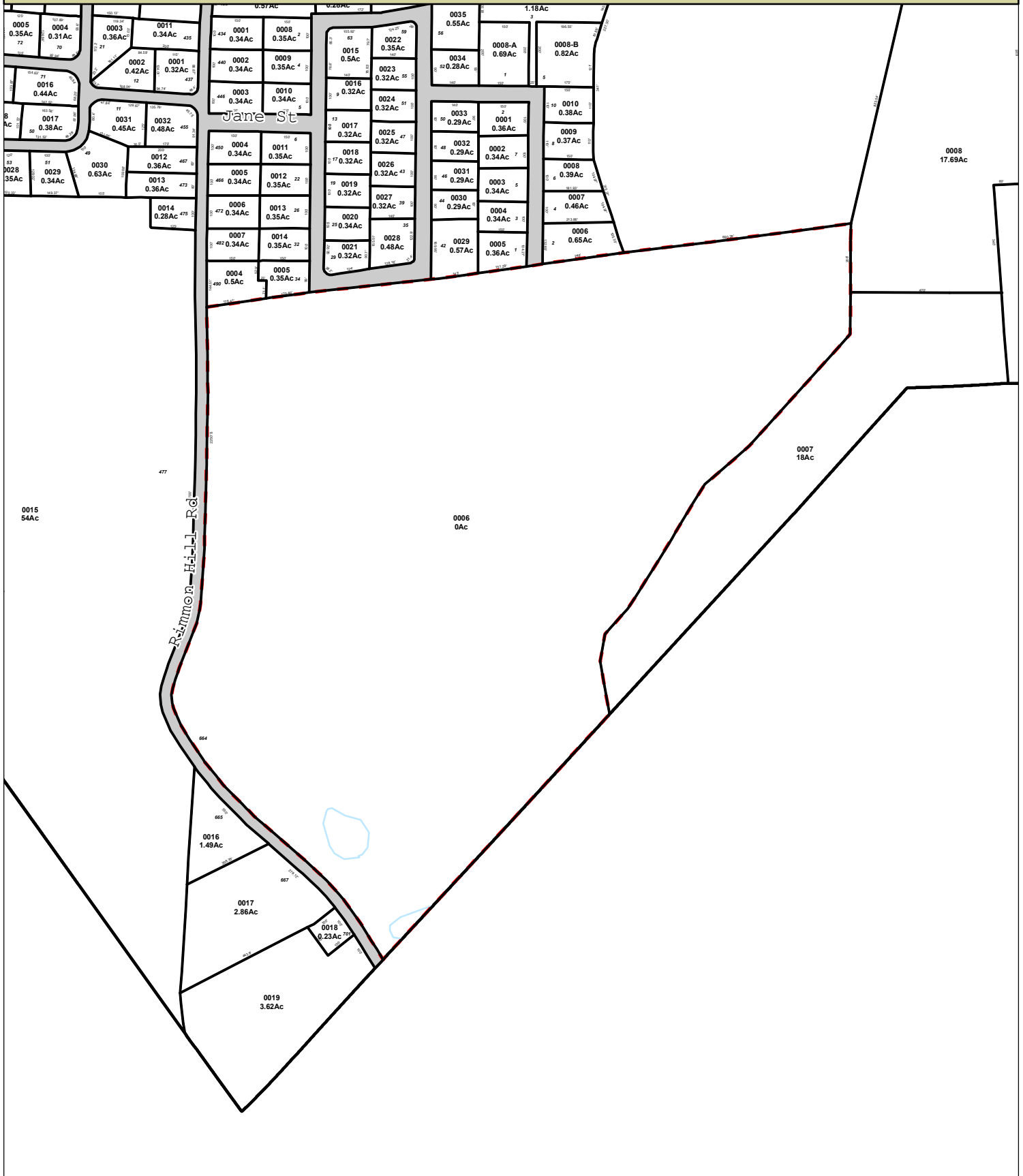
Notary Public 
My Commission Expires: March 14, 2025

Town of Beacon Falls, Connecticut - Assessment Parcel Map

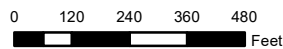


Parcel: 001-005-0006

Address: 664 RIMMON HILL RD



Approximate Scale: 1 inch = 400 feet



Map Produced March 2022

Disclaimer: This map is for informational purposes only. All information is subject to verification by any user. The Town of Beacon Falls and its mapping contractors assume no legal responsibility for the information contained herein.



Radio Frequency Exposure Analysis Report

June 20, 2022

American Tower on behalf of AT&T
Centerline Communications Project Number: 950035-004

AT&T Site Name: Beacon Falls
Site Number: CTL02161
FA#: 10035091
USID: 61185

Site Address: 664 RIMMON HILL ROAD, BEACON FALLS, CT 06403

Site Compliance Summary

AT&T Compliance Status:	Compliant
Cumulative Calculated Power Density (Ground Level):	10.77383 $\mu\text{W}/\text{cm}^2$
Cumulative General Population % MPE (Ground Level):	1.07748%



June 20, 2022

Centerline
Attn: Jennifer Iliades, Project Manager
750 W Center St, Suite 301
West Bridgewater, MA 02379

RF Exposure Analysis for Site: **Beacon Falls**

Centerline Communications, LLC (“Centerline”) was contracted to analyze the proposed AT&T facility at **664 RIMMON HILL ROAD, BEACON FALLS, CT 06403** for the purpose of determining whether the predictive exposure from the proposed facility is within specified federal limits.

All information used in this report was analyzed as a percentage of the Maximum Permissible Exposure (% MPE) limits as detailed in 47 CFR § 1.1310 as well as Federal Communications Commission (FCC) OET Bulletin 65 Edition 97-01. The FCC MPE limits are typically expressed in units of milliwatts per square centimeter (mW/cm^2) or microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The exposure limits vary depending upon the frequencies being utilized. The General Population/Uncontrolled MPE limit (in mW/cm^2) for frequencies between 300 and 1500 is defined as frequency (in MHz) divided by 1500 ($f_{\text{MHz}}/1500$). Frequencies between 1500 and 100,000 MHz have a General Population/Uncontrolled MPE limit of $1 \text{ mW}/\text{cm}^2$ ($1000 \mu\text{W}/\text{cm}^2$). The calculated power density at each sample point divided by the limit at each calculated frequency provides a result in % MPE. Summing the calculated % MPE from all contributors provides a cumulative % MPE at a particular sample point. Wireless carriers use different frequency bands with varying MPE limits; therefore, it is useful to report results in terms of % MPE as opposed to power density.

All results were compared to the FCC radio frequency exposure rules as detailed in 47 CFR § 1.1307(b) to determine compliance with the MPE limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits, as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means. Additional details can be found in FCC OET 65.



Calculation Methodology

Centerline Communications, LLC has performed theoretical modeling of the site using a software tool, RoofMaster®, which incorporates calculation methodologies detailed in FCC OET 65. RoofMaster® uses a cylindrical model for conservative power density predictions within the near field of the antenna where the antenna pattern has not truly formed yet. Within this area power density values tend to decrease based upon an inverse distance function. At the point where it is appropriate for modeling to change from near-field calculations to far-field calculations, the power decreases inversely with the square of the distance. The modeling is based on worst-case assumptions in terms of transmitter power and duty cycle. No losses were included in the power calculations unless they were specifically provided for the project.

In OET 65, a far field model is presented to calculate the spatial peak power density. The RoofMaster® implementation of this model incorporates antenna manufacturer's horizontal and vertical pattern data to determine the power density in all directions. This model yields the power density at a single point in space. In order to determine the spatial power density for comparison to the FCC limits, the average of several points calculated within the human profile (0-6') must be conducted. RoofMaster® calculates seven power density values between 0-6' above the specified study plane and performs a linear spatial average.



Data & Results

The following table details the antennas and operating parameters for the AT&T antenna system as well as any other antenna systems at the site. This is based on antenna information provided by the client and data compiled from other sources where necessary. The data below was input into Roofmaster® to perform the theoretical exposure calculations at the Ground Level.

The theoretical calculations performed in Roofmaster® determine the cumulative exposure at all sample points at ground level (0-6' spatial average). The results from highest cumulative sample point at ground level surrounding the site are displayed in the table below. The contribution from directional antennas to the maximum cumulative totals varies greatly depending on location; therefore, the contribution from one antenna sector at the highest calculated exposure point may be greater or less than other sectors since sectorized directional antennas are pointed in different directions and there is not much overlapping exposure.

The contribution to the cumulative power density and % MPE for each antenna/frequency band is listed in the table. The cumulative power density and cumulative % MPE are displayed at the bottom of the table.



Maximum Calculated Cumulative Power Density (Location: approximately 359' southeast of site)

Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/Channel (watts)	ERP (watts)	Calculated Power Density ($\mu\text{W}/\text{cm}^2$)	General Population MPE Limit ($\mu\text{W}/\text{cm}^2$)	General Population % MPE
AT&T A 1	CCI TPA65R-BU8D	700	12.95	164.00	4.00	30.00	2366.91	0.00000	466.67	0.000000
AT&T A 1	CCI TPA65R-BU8D	1900	15.15	164.00	4.00	30.00	3928.09	0.00000	1000.00	0.000000
AT&T A 1	CCI TPA65R-BU8D	2100	15.85	164.00	4.00	30.00	4615.10	0.00000	1000.00	0.000000
AT&T A 2	Ericsson SON_AIR6419	3450	23.45	165.75	1.00	108.40	23989.95	0.00001	1000.00	0.000001
AT&T A 3	Ericsson SON_AIR6449	3700	23.45	162.25	1.00	108.40	23989.95	0.00001	1000.00	0.000001
AT&T A 4	CCI DMP65R-BU8D	700	12.25	164.00	4.00	30.00	2014.56	0.00000	466.67	0.000000
AT&T A 4	CCI DMP65R-BU8D	850	12.55	164.00	4.00	30.00	2158.65	0.00000	566.67	0.000000
AT&T A 4	CCI DMP65R-BU8D	2300	14.95	164.00	4.00	18.00	2250.78	0.00000	1000.00	0.000000
AT&T B 5	CCI TPA65R-BU8D	700	12.95	164.00	4.00	30.00	2366.91	0.00012	466.67	0.000025
AT&T B 5	CCI TPA65R-BU8D	1900	15.15	164.00	4.00	30.00	3928.09	0.00011	1000.00	0.000011
AT&T B 5	CCI TPA65R-BU8D	2100	15.85	164.00	4.00	30.00	4615.10	0.00014	1000.00	0.000014
AT&T B 6	Ericsson SON_AIR6419	3450	23.45	160.75	1.00	108.40	23989.95	0.00058	1000.00	0.000058
AT&T B 7	Ericsson SON_AIR6449	3700	23.45	162.25	1.00	108.40	23989.95	0.00067	1000.00	0.000067
AT&T B 8	CCI DMP65R-BU8D	700	12.25	164.00	4.00	30.00	2014.56	0.00017	466.67	0.000036
AT&T B 8	CCI DMP65R-BU8D	850	12.55	164.00	4.00	30.00	2158.65	0.00012	566.67	0.000020
AT&T B 8	CCI DMP65R-BU8D	2300	14.95	164.00	4.00	18.00	2250.78	0.00009	1000.00	0.000009
AT&T C 9	CCI TPA65R-BU6D	700	11.75	164.00	4.00	30.00	1795.48	0.00000	466.67	0.000000
AT&T C 9	CCI TPA65R-BU6D	1900	15.05	164.00	4.00	30.00	3838.67	0.00000	1000.00	0.000000
AT&T C 9	CCI TPA65R-BU6D	2100	15.95	164.00	4.00	30.00	4722.60	0.00000	1000.00	0.000000
AT&T C 10	Ericsson SON_AIR6419	3450	23.45	165.75	1.00	108.40	23989.95	0.00000	1000.00	0.000000
AT&T C 11	Ericsson SON_AIR6449	3700	23.45	162.25	1.00	108.40	23989.95	0.00000	1000.00	0.000000
AT&T C 12	CCI DMP65R-BU6D	700	11.35	164.00	4.00	30.00	1637.50	0.00000	466.67	0.000000
AT&T C 12	CCI DMP65R-BU6D	850	11.45	164.00	4.00	30.00	1675.64	0.00000	566.67	0.000000
AT&T C 12	CCI DMP65R-BU6D	2300	15.25	164.00	4.00	18.00	2411.75	0.00000	1000.00	0.000000
Unknown A 13	GENERIC PANEL 6FT	700	12.33	150.00	4.00	40.00	2736.02	0.00000	466.67	0.000000
Unknown A 14	GENERIC PANEL 6FT	850	12.62	150.00	4.00	40.00	2924.96	0.00000	566.67	0.000000
Unknown A 15	GENERIC PANEL 6FT	1900	15.84	150.00	4.00	40.00	6139.32	0.00000	1000.00	0.000000
Unknown A 16	GENERIC PANEL 6FT	2100	16.39	150.00	4.00	40.00	6968.19	0.00000	1000.00	0.000000
Unknown B 17	GENERIC PANEL 6FT	700	12.33	150.00	4.00	40.00	2736.02	0.00013	466.67	0.000027
Unknown B 18	GENERIC PANEL 6FT	850	12.62	150.00	4.00	40.00	2924.96	0.00013	566.67	0.000023
Unknown B 19	GENERIC PANEL 6FT	1900	15.84	150.00	4.00	40.00	6139.32	0.00013	1000.00	0.000013
Unknown B 20	GENERIC PANEL 6FT	2100	16.39	150.00	4.00	40.00	6968.19	0.00014	1000.00	0.000014
Unknown C 21	GENERIC PANEL 6FT	700	12.33	150.00	4.00	40.00	2736.02	0.00000	466.67	0.000000
Unknown C 22	GENERIC PANEL 6FT	850	12.62	150.00	4.00	40.00	2924.96	0.00000	566.67	0.000000
Unknown C 23	GENERIC PANEL 6FT	1900	15.84	150.00	4.00	40.00	6139.32	0.00000	1000.00	0.000000



Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density ($\mu\text{W}/\text{cm}^2$)	General Population MPE Limit ($\mu\text{W}/\text{cm}^2$)	General Population % MPE
Unknown C 24	GENERIC PANEL 6FT	2100	16.39	150.00	4.00	40.00	6968.19	0.00000	1000.00	0.000000
Unknown D 25	GENERIC PANEL 6FT	700	12.33	135.00	4.00	40.00	2736.02	0.00000	466.67	0.000000
Unknown D 26	GENERIC PANEL 6FT	850	12.62	135.00	4.00	40.00	2924.96	0.00000	566.67	0.000000
Unknown D 27	GENERIC PANEL 6FT	1900	15.84	135.00	4.00	40.00	6139.32	0.00000	1000.00	0.000000
Unknown D 28	GENERIC PANEL 6FT	2100	16.39	135.00	4.00	40.00	6968.19	0.00000	1000.00	0.000000
Unknown E 29	GENERIC PANEL 6FT	700	12.33	135.00	4.00	40.00	2736.02	0.00016	466.67	0.000033
Unknown E 30	GENERIC PANEL 6FT	850	12.62	135.00	4.00	40.00	2924.96	0.00016	566.67	0.000028
Unknown E 31	GENERIC PANEL 6FT	1900	15.84	135.00	4.00	40.00	6139.32	0.00017	1000.00	0.000017
Unknown E 32	GENERIC PANEL 6FT	2100	16.39	135.00	4.00	40.00	6968.19	0.00017	1000.00	0.000017
Unknown F 33	GENERIC PANEL 6FT	700	12.33	135.00	4.00	40.00	2736.02	0.00000	466.67	0.000000
Unknown F 34	GENERIC PANEL 6FT	850	12.62	135.00	4.00	40.00	2924.96	0.00000	566.67	0.000000
Unknown F 35	GENERIC PANEL 6FT	1900	15.84	135.00	4.00	40.00	6139.32	0.00000	1000.00	0.000000
Unknown F 36	GENERIC PANEL 6FT	2100	16.39	135.00	4.00	40.00	6968.19	0.00000	1000.00	0.000000
							Cumulative Power Density:	10.77383 $\mu\text{W}/\text{cm}^2$	Cumulative % MPE:	1.07748%



Summary

The theoretical calculations performed for this analysis yielded cumulative power density totals in all areas at Ground Level that are within the allowable federal limits for public exposure to RF energy. Therefore, the site is **Compliant** with FCC rules and regulations.

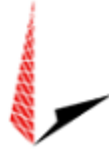
Matt Schulzinger
RF EME Technical Writer
Centerline Communications, LLC

Matt Schulzinger



AMERICAN TOWER®
CORPORATION

This report was prepared for American Tower Corporation by



**TOWER
ENGINEERING
PROFESSIONALS**

Structural Analysis Report

Structure : 173 ft Monopole
ATC Site Name : Beacon Falls,CT
ATC Site Number : 302524
Engineering Number : 13753210_C3_03
Proposed Carrier : AT&T MOBILITY
Carrier Site Name : MRCTB056179
Carrier Site Number : MRCTB056179
Site Location : 664 Rimmon Hill Road
Seymour, CT 06483-2722
41.4072, -73.0793
County : New Haven
Date : April 14, 2022
Max Usage : 99%
Result : Pass

Prepared By:

Jack Davis
TEP

Reviewed By:



COA : PEC.0001553



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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 173 ft Monopole to reflect the change in loading by AT&T MOBILITY.

Supporting Documents

Tower Drawings	Valmont Drawing #DC3268Z, dated May 28, 1996 Mapping by Aria Services ATC Site #302524, dated April 5, 2022
Foundation Drawing	SNET Sheet #4 of 11, dated July 16, 1996
Geotechnical Report	S&ME Job #1261-07-418Z, dated November 13, 2007
Modifications	Spectrasite Site #CT-0060, dated February 20, 2002
Mount Analysis	ATC Project #13753210_C9_05, dated April 12, 2022

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	118 mph (3-second gust)
Basic Wind Speed w/ Ice:	50 mph (3-second gust) w/ 1.00" radial ice concurrent
Code:	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Spectral Response:	$S_s = 0.20$, $S_i = 0.05$
Site Class:	D - Stiff Soil - Default

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.



Existing and Reserved Equipment

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
164.0	3	Ericsson RRUS 32 B2	Platform with Handrails	(2) 0.39" (10mm) Fiber Trunk (4) 0.78" (19.7mm) 8 AWG 6 (2) 2" conduit (6) 1 1/4" Coax	AT&T MOBILITY
	2	Raycap DC6-48-60-18-8F (23.5" Height)			
149.0	3	Samsung B2/B66A RRH-BR049	Platform with Handrails	(10) 1 5/8" Coax (2) 1 5/8" Hybriflex	VERIZON WIRELESS
	3	Commscope CBC78T-DS-43-2X			
	3	Samsung B5/B13 RRH-BR04C			
	6	Andrew DB844H80E-XY			
	1	Raycap RCMDC-6627-PF-48			
	3	Samsung MT6407-77A			
	6	Commscope JAHH-65B-R3B			
135.0	12	42" x 6" Panel	Low Profile Platform	(12) 1 1/4" Coax	OTHER

Equipment to be Removed

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
164.0	6	Kaelus DBC0061F1V51-2	-	(6) 1 1/4" Coax	AT&T MOBILITY
	6	Powerwave Allgon TT08-19DB111-001			
	3	Ericsson RRUS-11 (50 lbs.)			
	2	CCI TPA-65R-LCUUUU-H8			
	1	CCI HPA-65R-BUU-H6			
	1	Kathrein Scala 80010798			
	2	CCI HPA-65R-BUU-H8			
	3	Ericsson RRUS 32 (55.1 lbs)			
	3	KMW AM-X-CD-14-65-00T-RET			

Proposed Equipment

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
166.0	3	Ericsson Air 6449 B77D	Platform with Handrails	(1) 0.41" (10.3mm) Fiber (3) 0.92" (23.4mm) Cable (2) 2" conduit	AT&T MOBILITY
164.0	3	Ericsson RRUS 4426 B66			
	3	Ericsson RRUS 4449 B5, B12			
	3	Ericsson RRUS 4478 B14			
	3	Ericsson RRUS 32 B30			
	3	Ericsson AIR 6419 B77G			
	1	Raycap DC9-48-60-24-8C-EV			
	1	CCI DMP65R-BU6DA			
	1	CCI TPA-65R-BU6DA-K			
	2	CCI DMP65R-BU8D			
	2	CCI TPA65R-BU8D			

¹ Contracted elevations are shown for appurtenances within contracted installation tolerances. Appurtenances outside of contract limits are shown at installed elevations.

Install proposed lines inside the pole shaft.



Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	58%	Pass
Shaft	99%	Pass
Base Plate	21%	Pass
Flange	90%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Moment (Kips-Ft)	3,020.9	4,078.2	3,114.2	76%
Shear (Kips)	28.0	37.8	25.5	67%

* The design reactions are factored by 1.35 per ANSI/TIA-222-H, Sec. 15.6.2

The structure base reactions resulting from this analysis are acceptable when compared to those shown on the original structure drawings, therefore no modification or reinforcement of the foundation will be required.

Deflection, Twist and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
166.0	Ericsson Air 6449 B77D	AT&T MOBILITY	3.297	2.300
164.0	Ericsson RRUS 4449 B5, B12			
	Ericsson RRUS 4478 B14			
	Ericsson RRUS 32 B30			
	CCI TPA65R-BU8D			
	Raycap DC9-48-60-24-8C-EV			
	CCI DMP65R-BU6DA			
	CCI TPA-65R-BU6DA-K			
	CCI DMP65R-BU8D			
	Ericsson RRUS 4426 B66			
	Ericsson AIR 6419 B77G			

*Deflection, Twist and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-H



Standard Conditions

All engineering services performed by A.T. Engineering Service, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

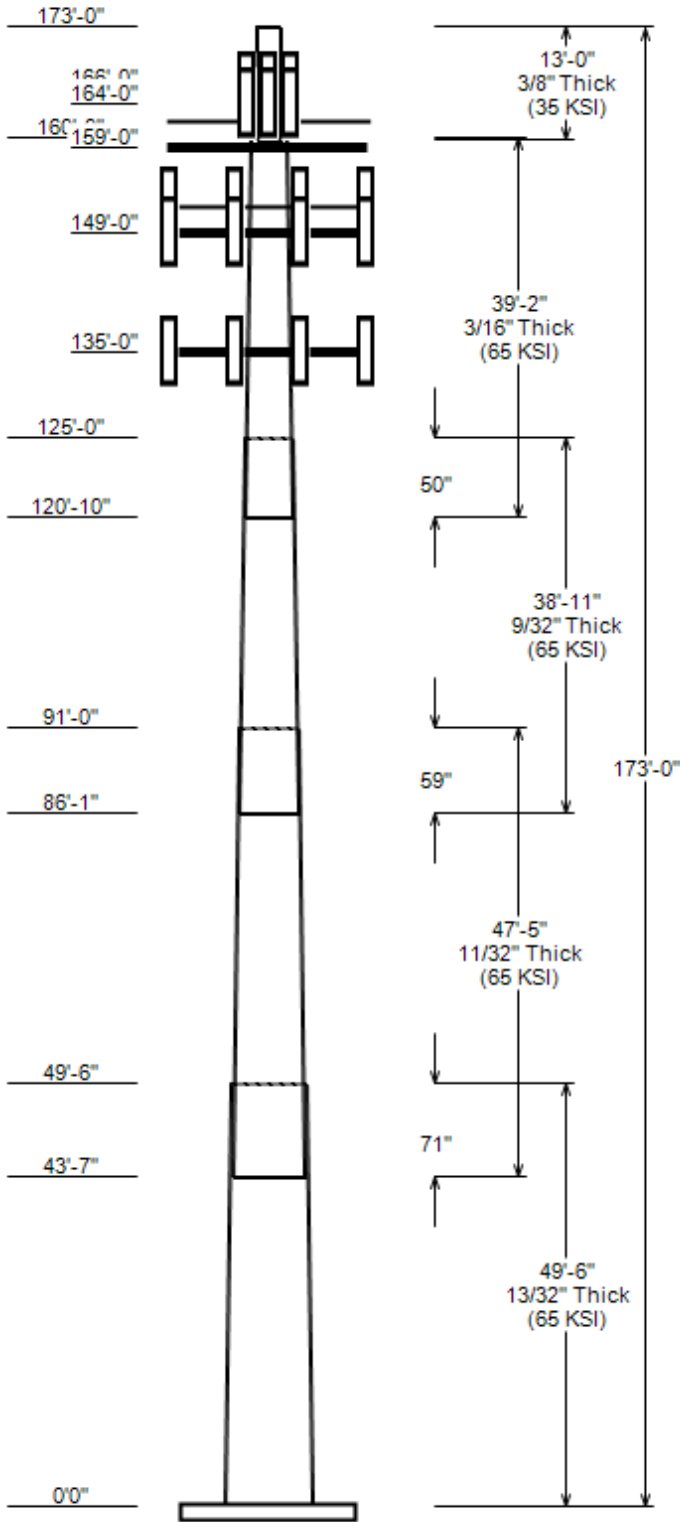
All assets of American Tower Corporation, its affiliates, and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and A.T. Engineering Service, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

Asset : 302524, Beacon Falls
 Client : AT&T MOBILITY
 Code : ANSI/TIA-222-H

Height : 173 ft
 Base Width : 48.5
 Shape : 12 Sides



SITE PARAMETERS

Nominal Wind: 118 mph wind with no ice **Topo Category:** 1
 Ice Wind: 50 mph wind with 1" radial **Topo Method:** Method 1
 Base Elev (ft): 0.00 **Taper :** 0.20300 (in/ft) **Topo Feature:**
Structure Class: II **Exposure :** B **S_s :** 0.2 **S₁ :** 0.054

SECTION PROPERTIES

Shaft Section	Length (ft)	Diameter (in)		Thick Joint (in)	Type	Overlap Length (in)	Shape	Steel Grade (ksi)
		Across Flats Top	Across Flats Bottom					
1	49.500	38.45	48.50	0.406		0.000	12 Sides	65
2	47.417	30.72	40.34	0.344	Slip Joint	71.000	12 Sides	65
3	38.917	24.38	32.28	0.281	Slip Joint	59.000	12 Sides	65
4	39.167	17.64	25.60	0.188	Slip Joint	50.000	12 Sides	65
5	13.000	14.00	14.00	0.375	Butt Joint	0.000	Round	35

DISCRETE APPURTENANCE

Attach Elev (ft)	Force Elev (ft)	Qty	Description
166.0	166.0	3	Ericsson Air 6449 B77D
164.0	164.0	2	Raycap DC6-48-60-18-8F (23.5")
164.0	164.0	3	Ericsson RRUS 4426 B66
164.0	164.0	3	Ericsson RRUS 4449 B5, B12
164.0	164.0	3	Ericsson RRUS 4478 B14
164.0	164.0	3	Ericsson RRUS 32 B30
164.0	164.0	3	Ericsson RRUS 32 B2
164.0	164.0	3	Ericsson AIR 6419 B77G
164.0	164.0	1	Raycap DC9-48-60-24-8C-EV
164.0	164.0	1	CCI DMP65R-BU6DA
164.0	164.0	1	CCI TPA-65R-BU6DA-K
164.0	164.0	2	CCI DMP65R-BU8D
164.0	164.0	2	CCI TPA65R-BU8D
159.0	159.0	1	Generic Mount Reinforcement
159.0	159.0	1	Generic Flat Platform with Han
149.0	149.0	3	Commscope CBC78T-DS-43-2X
149.0	149.0	3	Samsung B5/B13 RRH-BR04C
149.0	149.0	3	Samsung B2/B66A RRH-BR049
149.0	150.0	6	Andrew DB844H80E-XY
149.0	149.0	1	Raycap RCMDC-6627-PF-48
149.0	149.0	3	Samsung MT6407-77A
149.0	149.0	6	Commscope JAHH-65B-R3B
149.0	149.0	1	Generic Flat Platform with Han
135.0	135.0	12	Generic 42" x 6" Panel
135.0	135.0	1	Flat Low Profile Platform

LINEAR APPURTENANCE

Elev From (ft)	Elev To (ft)	Description	Exp To Wind
0.0	166.0	1 1/4" Coax	No
0.0	164.0	2" conduit	No
0.0	164.0	2" conduit	No
0.0	164.0	0.92" (23.4mm) Cable	No
0.0	164.0	0.78" (19.7mm) 8 AWG 6	No
0.0	164.0	0.78" (19.7mm) 8 AWG 6	No
0.0	164.0	0.41" (10.3mm) Fiber	No
0.0	164.0	0.39" (10mm) Fiber Trunk	No
0.0	149.0	1 5/8" Hybriflex	No
0.0	149.0	1 5/8" Coax	No
0.0	135.0	1 1/4" Coax	No

JOB INFORMATION

Asset : 302524, Beacon Falls
 Client : AT&T MOBILITY
 Code : ANSI/TIA-222-H

Height : 173 ft
 Base Width : 48.5
 Shape : 12 Sides

LOAD CASES

1.2D + 1.0W Normal	118 mph wind with no ice
0.9D + 1.0W Normal	118 mph wind with no ice
1.2D + 1.0Di + 1.0Wi Nor	50 mph wind with 1" radial ice
1.2D + 1.0Ev + 1.0Eh Nor	Seismic
0.9D - 1.0Ev + 1.0Eh Nor	Seismic (Reduced DL)
1.0D + 1.0W Service Norm	60 mph Wind with No Ice

REACTIONS

Load Case	Moment (kip-ft)	Shear (Kip)	Axial (Kip)
1.2D + 1.0W Normal	3114.15	25.53	45.72
0.9D + 1.0W Normal	3043.69	25.51	34.28
1.2D + 1.0Di + 1.0Wi Normal	778.96	6.11	59.40
1.2D + 1.0Ev + 1.0Eh Normal	169.95	1.15	45.82
0.9D - 1.0Ev + 1.0Eh Normal	164.94	1.15	31.61
1.0D + 1.0W Service Normal	712.85	5.91	38.14

DISH DEFLECTIONS

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
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ASSET: 302524, Beacon Falls
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
ENG NO: 13753210_C3_03

ANALYSIS PARAMETERS

Location:	New Haven County,CT	Height:	173 ft
Type and Shape:	Custom, Round	Base Diameter:	48.50 in
Manufacturer:	Valmont	Top Diameter:	14.00 in
K_d (non-service):	0.95	Taper:	0.2030 in/ft
K_e:	0.98	Rotation:	0.000°

ICE & WIND PARAMETERS

Exposure Category:	B	Design Wind Speed w/o Ice:	118 mph
Risk Category:	II	Design Wind Speed w/Ice:	50 mph
Topo Factor Procedure:	Method 1	Operational Wind Speed:	60 mph
Topographic Category:	1	Design Ice Thickness:	1.00 in
Crest Height:	0 ft	HMSL:	420.00 ft

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method		
Site Class:	D - Stiff Soil	Period Based on Rayleigh Method (sec):	3.47
T_L (sec):	6	P:	1
S_s:	0.200	S₁:	0.054
F_a:	1.600	F_v:	2.400
S_{ds}:	0.213	S_{dt}:	0.086
		C_s:	0.030
		C_s Max:	0.030
		C_s Min:	0.030

LOAD CASES

1.2D + 1.0W Normal	118 mph wind with no ice
0.9D + 1.0W Normal	118 mph wind with no ice
1.2D + 1.0Di + 1.0Wi Normal	50 mph wind with 1" radial ice
1.2D + 1.0Ev + 1.0Eh Normal	Seismic
0.9D - 1.0Ev + 1.0Eh Normal	Seismic (Reduced DL)
1.0D + 1.0W Service Normal	60 mph Wind with No Ice

ASSET: 302524, Beacon Falls
 CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
 ENG NO: 13753210_C3_03

SHAFT SECTION PROPERTIES

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint len (in)	Bottom							Top							
						Weight (lb)	Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Dia (in)	Elev (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Taper (in/ft)	
1-12	49.50	0.4063	65		0.00	9,490	48.50	0.000	62.92	18,576.0	29.31	119.37	38.45	49.50	49.77	9,195.8	22.68	94.64	0.2030	
2-12	47.42	0.3438	65	Slip	71.00	6,284	40.34	43.583	44.28	9,040.9	28.76	117.34	30.72	91.00	33.62	3,958.4	21.26	89.34	0.2030	
3-12	38.92	0.2813	65	Slip	59.00	3,363	32.28	86.083	28.98	3,786.3	28.06	114.74	24.38	125.00	21.82	1,617.1	20.54	86.65	0.2030	
4-12	39.17	0.1875	65	Slip	50.00	1,725	25.60	120.83	3 15.34	1,264.1	33.90	136.51	17.64	160.00	10.54	410.0	22.54	94.11	0.2030	
5-R	13.00	0.3750	35	Butt	0.00	710	14.00	160.00	0 16.05	372.8	0.00	37.33	14.00	173.00	16.05	372.8	0.00	37.33	0.0000	
Shaft Weight						21,572														

DISCRETE APPURTENANCE PROPERTIES

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice			Ice		
					Weight (lb)	EPAA (sf)	Orientation Factor	Weight (lb)	EPAA (sf)	Orientation Factor
166.00	Ericsson Air 6449 B77D	3	0.75	0.000	81.60	4.028	0.65	150.98	4.956	0.65
164.00	Raycap DC6-48-60-18-8F (23.5"	2	0.75	0.000	20.00	1.260	1.00	55.45	1.703	1.00
164.00	CCI TPA65R-BU8D	2	0.75	0.000	82.50	18.089	0.72	314.61	20.575	0.72
164.00	CCI DMP65R-BU8D	2	0.75	0.000	95.70	17.871	0.72	324.51	20.352	0.72
164.00	CCI TPA-65R-BU6DA-K	1	0.75	0.000	79.60	15.270	1.00	281.15	17.196	1.00
164.00	CCI DMP65R-BU6DA	1	0.75	0.000	79.40	12.709	1.00	252.82	14.587	1.00
164.00	Raycap DC9-48-60-24-8C-EV	1	0.75	0.000	16.00	4.788	1.00	102.91	5.778	1.00
164.00	Ericsson AIR 6419 B77G	3	0.75	0.000	66.10	3.797	0.65	131.42	4.684	0.65
164.00	Ericsson RRUS 32 B30	3	0.75	0.000	60.00	2.743	0.67	109.52	3.530	0.67
164.00	Ericsson RRUS 32 B2	3	0.75	0.000	53.00	2.743	0.67	102.51	3.530	0.67
164.00	Ericsson RRUS 4478 B14	3	0.75	0.000	59.40	2.021	0.67	100.71	2.656	0.67
164.00	Ericsson RRUS 4449 B5, B12	3	0.75	0.000	71.00	1.969	0.50	114.39	2.597	0.50
164.00	Ericsson RRUS 4426 B66	3	0.75	0.000	48.40	1.650	0.50	78.45	2.222	0.50
159.00	Generic Mount Reinforcement	1	1.00	0.000	200.00	7.500	1.00	329.88	12.525	1.00
159.00	Generic Flat Platform with Han	1	1.00	0.000	2500.00	42.400	1.00	3692.17	56.474	1.00
149.00	Samsung MT6407-77A	3	0.75	0.000	81.60	4.709	0.61	149.55	5.722	0.61
149.00	Commscope CBC78T-DS-43-2X	3	0.75	0.000	20.70	0.552	0.50	35.43	0.891	0.50
149.00	Generic Flat Platform with Han	1	1.00	0.000	2500.00	42.400	1.00	3684.35	56.382	1.00
149.00	Commscope JAHH-65B-R3B	6	0.75	0.000	60.60	9.113	0.69	195.47	10.963	0.69
149.00	Raycap RCMDC-6627-PF-48	1	0.75	0.000	32.00	4.056	1.00	116.73	4.966	1.00
149.00	Andrew DB844H80E-XY	6	0.75	1.000	10.00	3.615	0.73	75.43	3.423	0.73
149.00	Samsung B5/B13 RRH-BR04C	3	0.75	0.000	70.30	1.875	0.50	108.44	2.477	0.50
149.00	Samsung B2/B66A RRH-BR049	3	0.75	0.000	84.40	1.875	0.50	126.93	2.477	0.50
135.00	Flat Low Profile Platform	1	1.00	0.000	1500.00	26.100	1.00	1927.48	38.697	1.00
135.00	Generic 42" x 6" Panel	12	0.80	0.000	20.00	2.450	0.67	53.37	3.545	0.67
Totals	Num Loadings: 25	71			10,056.50			17,667.46		

LINEAR APPURTENANCE PROPERTIES

Load Case Azimuth (deg) : _

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Max Flat	Coax/ Row	Dist Between Rows (in)	Dist Between Cols (in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	166.00	6	1 1/4" Coax	1.55	0.63	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	164.00	3	0.92" (23.4mm) Cable	0.92	0.89	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	164.00	2	2" conduit	2.38	3.65	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	164.00	2	2" conduit	2.38	3.65	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	164.00	2	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	164.00	2	0.39" (10mm) Fiber Tr	0.39	0.06	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	164.00	2	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	164.00	1	0.41" (10.3mm) Fiber	0.41	0.09	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	149.00	10	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	VERIZON WIREL
0.00	149.00	2	1 5/8" Hybriflex	1.98	1.3	N	0	0	0	0	0	N	VERIZON WIREL
0.00	135.00	12	1 1/4" Coax	1.55	0.63	N	0	0	0	0	0	N	OTHER

SEGMENT PROPERTIES

(Max Len: 5.ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Fy (ksi)	S (in ³)	Z (in ³)	Weight (lb)
0.00		0.4063	48.500	62.920	18,576.00	29.31	119.37	72.8	739.9	0.0	0.0
5.00		0.4063	47.485	61.592	17,424.60	28.64	116.87	73.5	708.9	0.0	1,059.2
10.00		0.4063	46.470	60.264	16,321.70	27.97	114.37	74.2	678.5	0.0	1,036.6
15.00		0.4063	45.455	58.937	15,266.40	27.30	111.88	74.9	648.8	0.0	1,014.0
20.00		0.4063	44.440	57.609	14,257.50	26.63	109.38	75.7	619.8	0.0	991.4
25.00		0.4063	43.425	56.281	13,294.10	25.96	106.88	76.4	591.4	0.0	968.9
30.00		0.4063	42.410	54.953	12,375.20	25.29	104.38	77.1	563.7	0.0	946.3
35.00		0.4063	41.395	53.625	11,499.60	24.62	101.88	77.9	536.7	0.0	923.7
40.00		0.4063	40.380	52.297	10,666.20	23.95	99.38	78.6	510.3	0.0	901.1
43.58	Bot - Section 2	0.4063	39.653	51.345	10,094.50	23.47	97.59	79.1	491.8	0.0	631.9
45.00		0.4063	39.365	50.969	9,874.20	23.28	96.89	79.3	484.6	0.0	459.3
49.50	Top - Section 1	0.3438	39.139	42.948	8,250.60	27.82	113.84	74.4	407.2	0.0	1,436.7
50.00		0.3438	39.038	42.835	8,186.00	27.75	113.55	74.5	405.1	0.0	73.0
55.00		0.3438	38.023	41.712	7,558.60	26.95	110.60	75.3	384.0	0.0	719.2
60.00		0.3438	37.008	40.588	6,964.00	26.16	107.64	76.2	363.5	0.0	700.1
65.00		0.3438	35.993	39.465	6,401.50	25.37	104.69	77	343.6	0.0	681.0
70.00		0.3438	34.978	38.341	5,870.10	24.58	101.74	77.9	324.2	0.0	661.9
75.00		0.3438	33.963	37.217	5,369.00	23.79	98.79	78.8	305.4	0.0	642.8
80.00		0.3438	32.948	36.094	4,897.30	23.00	95.83	79.6	287.1	0.0	623.7
85.00		0.3438	31.933	34.970	4,454.00	22.21	92.88	80.5	269.5	0.0	604.5
86.08	Bot - Section 3	0.3438	31.713	34.726	4,361.60	22.04	92.24	80.7	265.7	0.0	128.5
90.00		0.3438	30.918	33.846	4,038.30	21.42	89.93	81.4	252.3	0.0	838.4
91.00	Top - Section 2	0.2813	31.277	28.076	3,442.90	27.11	111.19	75.1	212.7	0.0	210.6
95.00		0.2813	30.465	27.340	3,179.30	26.34	108.30	76	201.6	0.0	377.1
100.00		0.2813	29.450	26.421	2,869.30	25.37	104.69	77	188.2	0.0	457.3
105.00		0.2813	28.435	25.501	2,580.00	24.41	101.08	78.1	175.3	0.0	441.7
110.00		0.2813	27.420	24.582	2,310.90	23.44	97.48	79.2	162.8	0.0	426.1
115.00		0.2813	26.405	23.663	2,061.20	22.47	93.87	80.2	150.8	0.0	410.4
120.00		0.2813	25.390	22.743	1,830.20	21.51	90.26	81.3	139.3	0.0	394.8
120.83	Bot - Section 4	0.2813	25.221	22.590	1,793.40	21.34	89.66	81.4	137.4	0.0	64.3
125.00	Top - Section 3	0.1875	24.750	14.830	1,142.00	32.69	132.00	69.1	89.1	0.0	528.7
130.00		0.1875	23.735	14.217	1,006.20	31.24	126.59	70.6	81.9	0.0	247.1
135.00		0.1875	22.720	13.604	881.60	29.79	121.17	72.2	75.0	0.0	236.7
140.00		0.1875	21.705	12.991	767.80	28.34	115.76	73.8	68.3	0.0	226.2
145.00		0.1875	20.690	12.379	664.20	26.89	110.35	75.4	62.0	0.0	215.8
149.00		0.1875	19.878	11.888	588.30	25.73	106.02	76.7	57.2	0.0	165.1
150.00		0.1875	19.675	11.766	570.30	25.44	104.93	77	56.0	0.0	40.2
155.00		0.1875	18.660	11.153	485.80	23.99	99.52	78.6	50.3	0.0	195.0
159.00		0.1875	17.848	10.663	424.50	22.83	95.19	79.8	45.9	0.0	148.5
160.00	Top - Section 4	0.1875	17.645	10.540	410.00	22.54	94.11	80.1	44.9	0.0	36.1
160.00	Bot - Section 5	0.3750	14.000	16.052	372.80	0.00	37.33	35	53.3	69.6	
164.00		0.3750	14.000	16.052	372.80	0.00	37.33	35	53.3	69.6	218.5
165.00		0.3750	14.000	16.052	372.80	0.00	37.33	35	53.3	69.6	54.6
166.00		0.3750	14.000	16.052	372.80	0.00	37.33	35	53.3	69.6	54.6
170.00		0.3750	14.000	16.052	372.80	0.00	37.33	35	53.3	69.6	218.5
173.00		0.3750	14.000	16.052	372.80	0.00	37.33	35	53.3	69.6	163.9

Totals: 21,574.0

Load Case: 1.2D + 1.0W Normal	118 mph wind with no ice	31 Iterations
Gust Response Factor: 1.10		
Dead load Factor: 1.20		
Wind Load Factor: 1.00		

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-45.72	-25.53	0.00	-3,114.2	0.00	3,114.15	4,119.85	1,104.25	5,009.78	4,037.34	0	0	0.783
5.00	-44.09	-25.21	0.00	-2,986.5	0.00	2,986.48	4,073.38	1,080.95	4,800.61	3,906.84	0.12	-0.23	0.776
10.00	-42.49	-24.89	0.00	-2,860.4	0.00	2,860.42	4,025.15	1,057.64	4,595.90	3,776.64	0.5	-0.47	0.769
15.00	-40.92	-24.58	0.00	-2,736.0	0.00	2,735.95	3,975.18	1,034.34	4,395.65	3,646.86	1.12	-0.72	0.761
20.00	-39.38	-24.26	0.00	-2,613.1	0.00	2,613.07	3,923.47	1,011.03	4,199.87	3,517.59	2	-0.97	0.753
25.00	-37.87	-23.95	0.00	-2,491.8	0.00	2,491.77	3,870.01	987.73	4,008.54	3,388.95	3.15	-1.22	0.746
30.00	-36.39	-23.63	0.00	-2,372.0	0.00	2,372.04	3,814.81	964.42	3,821.67	3,261.05	4.57	-1.48	0.738
35.00	-34.93	-23.30	0.00	-2,253.9	0.00	2,253.89	3,757.86	941.12	3,639.27	3,134.00	6.26	-1.75	0.729
40.00	-33.52	-23.00	0.00	-2,137.4	0.00	2,137.38	3,699.17	917.81	3,461.32	3,007.91	8.23	-2.02	0.720
43.58	-32.53	-22.81	0.00	-2,055.0	0.00	2,054.97	3,656.03	901.11	3,336.53	2,918.19	9.82	-2.22	0.714
45.00	-31.85	-22.60	0.00	-2,022.6	0.00	2,022.65	3,638.73	894.51	3,287.83	2,882.88	10.5	-2.3	0.711
49.50	-29.86	-22.36	0.00	-1,920.9	0.00	1,920.94	2,874.54	753.73	2,758.49	2,271.41	12.78	-2.56	0.857
50.00	-29.69	-22.18	0.00	-1,909.8	0.00	1,909.77	2,870.35	751.76	2,744.08	2,262.10	13.05	-2.58	0.855
55.00	-28.48	-21.81	0.00	-1,798.9	0.00	1,798.87	2,827.44	732.04	2,602.05	2,169.33	15.93	-2.91	0.840
60.00	-27.29	-21.44	0.00	-1,689.8	0.00	1,689.80	2,782.79	712.32	2,463.79	2,077.03	19.15	-3.24	0.824
65.00	-26.13	-21.06	0.00	-1,582.6	0.00	1,582.60	2,736.40	692.60	2,329.31	1,985.34	22.72	-3.57	0.808
70.00	-24.99	-20.67	0.00	-1,477.3	0.00	1,477.32	2,688.26	672.88	2,198.59	1,894.35	26.63	-3.91	0.790
75.00	-23.88	-20.28	0.00	-1,374.0	0.00	1,373.96	2,638.38	653.16	2,071.66	1,804.18	30.91	-4.25	0.772
80.00	-22.79	-19.89	0.00	-1,272.6	0.00	1,272.56	2,586.75	633.44	1,948.50	1,714.92	35.55	-4.61	0.752
85.00	-21.77	-19.61	0.00	-1,173.1	0.00	1,173.13	2,533.37	613.72	1,829.11	1,626.71	40.56	-4.96	0.731
86.08	-21.52	-19.43	0.00	-1,151.9	0.00	1,151.88	2,521.58	609.45	1,803.74	1,607.74	41.69	-5.04	0.726
90.00	-20.28	-19.17	0.00	-1,075.8	0.00	1,075.77	2,478.25	594.00	1,713.49	1,539.63	45.94	-5.33	0.708
91.00	-19.94	-18.98	0.00	-1,056.6	0.00	1,056.60	1,898.74	492.73	1,440.76	1,198.46	47.06	-5.4	0.894
95.00	-19.21	-18.64	0.00	-980.7	0.00	980.69	1,869.75	479.82	1,366.29	1,148.97	51.7	-5.69	0.865
100.00	-18.33	-18.25	0.00	-887.5	0.00	887.51	1,831.95	463.68	1,275.97	1,087.54	57.88	-6.11	0.828
105.00	-17.47	-17.87	0.00	-796.2	0.00	796.25	1,792.41	447.55	1,188.74	1,026.68	64.49	-6.53	0.787
110.00	-16.63	-17.48	0.00	-706.9	0.00	706.91	1,751.12	431.41	1,104.60	966.51	71.54	-6.94	0.743
115.00	-15.83	-17.10	0.00	-619.5	0.00	619.49	1,708.08	415.28	1,023.55	907.14	79.01	-7.35	0.694
120.00	-15.07	-16.83	0.00	-534.0	0.00	534.01	1,663.30	399.14	945.59	848.67	86.9	-7.75	0.640
120.83	-14.92	-16.67	0.00	-520.0	0.00	519.98	1,655.67	396.46	932.89	839.02	88.26	-7.82	0.631
125.00	-14.04	-16.28	0.00	-450.5	0.00	450.53	921.74	260.26	603.01	461.70	95.2	-8.14	0.995
130.00	-13.44	-15.92	0.00	-369.1	0.00	369.12	903.90	249.51	554.22	433.91	103.89	-8.5	0.870
135.00	-11.05	-13.61	0.00	-289.5	0.00	289.51	884.30	238.75	507.48	406.06	113.02	-8.96	0.729
140.00	-10.54	-13.26	0.00	-221.4	0.00	221.45	862.97	228.00	462.80	378.27	122.59	-9.38	0.601
145.00	-10.07	-12.92	0.00	-155.2	0.00	155.17	839.89	217.24	420.18	350.64	132.56	-9.73	0.458
149.00	-5.99	-8.06	0.00	-103.0	0.00	102.99	820.16	208.64	387.57	328.72	140.77	-9.95	0.322
150.00	-5.93	-7.87	0.00	-94.9	0.00	94.93	815.06	206.49	379.62	323.27	142.85	-10	0.302
155.00	-5.59	-7.54	0.00	-55.6	0.00	55.56	788.49	195.73	341.12	296.29	153.37	-10.18	0.196
159.00	-2.51	-4.73	0.00	-25.4	0.00	25.39	765.97	187.13	311.80	275.05	161.9	-10.28	0.096
160.00	-2.45	-4.63	0.00	-20.7	0.00	20.66	760.17	184.98	304.68	269.80	164.05	-10.29	0.080
160.00	-2.45	-4.63	0.00	-20.7	0.00	20.66	505.62	151.69	181.70	182.79	164.05	-10.29	0.119
164.00	-0.80	-0.60	0.00	-2.1	0.00	2.12	505.62	151.69	181.70	182.79	172.64	-10.32	0.013
165.00	-0.73	-0.56	0.00	-1.5	0.00	1.53	505.62	151.69	181.70	182.79	174.79	-10.33	0.010
166.00	-0.43	-0.19	0.00	-1.0	0.00	0.97	505.62	151.69	181.70	182.79	176.94	-10.33	0.006
170.00	-0.19	-0.07	0.00	-0.2	0.00	0.20	505.62	151.69	181.70	182.79	185.55	-10.33	0.001
173.00	0.00	-0.03	0.00	0.0	0.00	0.00	505.62	151.69	181.70	182.79	192	-10.33	0.000

ASSET: 302524, Beacon Falls
 CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
 ENG NO: 13753210_C3_03

Load Case: 0.9D + 1.0W Normal	118 mph wind with no ice	31 Iterations
Gust Response Factor: 1.10		
Dead load Factor: 0.90		
Wind Load Factor: 1.00		

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-34.28	-25.51	0.00	-3,043.7	0.00	3,043.69	4,119.85	1,104.25	5,009.78	4,037.34	0	0	0.763
5.00	-33.03	-25.14	0.00	-2,916.2	0.00	2,916.15	4,073.38	1,080.95	4,800.61	3,906.84	0.12	-0.23	0.755
10.00	-31.81	-24.77	0.00	-2,790.4	0.00	2,790.45	4,025.15	1,057.64	4,595.90	3,776.64	0.49	-0.46	0.747
15.00	-30.61	-24.41	0.00	-2,666.6	0.00	2,666.58	3,975.18	1,034.34	4,395.65	3,646.86	1.1	-0.7	0.739
20.00	-29.44	-24.06	0.00	-2,544.5	0.00	2,544.51	3,923.47	1,011.03	4,199.87	3,517.59	1.96	-0.94	0.731
25.00	-28.28	-23.70	0.00	-2,424.2	0.00	2,424.23	3,870.01	987.73	4,008.54	3,388.95	3.08	-1.19	0.723
30.00	-27.15	-23.35	0.00	-2,305.7	0.00	2,305.71	3,814.81	964.42	3,821.67	3,261.05	4.46	-1.44	0.715
35.00	-26.04	-22.99	0.00	-2,189.0	0.00	2,188.96	3,757.86	941.12	3,639.27	3,134.00	6.11	-1.7	0.706
40.00	-24.96	-22.66	0.00	-2,074.0	0.00	2,074.04	3,699.17	917.81	3,461.32	3,007.91	8.03	-1.96	0.697
43.58	-24.21	-22.46	0.00	-1,992.8	0.00	1,992.85	3,656.03	901.11	3,336.53	2,918.19	9.58	-2.16	0.690
45.00	-23.69	-22.23	0.00	-1,961.0	0.00	1,961.03	3,638.73	894.51	3,287.83	2,882.88	10.23	-2.24	0.687
49.50	-22.19	-21.98	0.00	-1,861.0	0.00	1,861.01	2,874.54	753.73	2,758.49	2,271.41	12.46	-2.49	0.828
50.00	-22.05	-21.78	0.00	-1,850.0	0.00	1,850.02	2,870.35	751.76	2,744.08	2,262.10	12.72	-2.51	0.826
55.00	-21.12	-21.39	0.00	-1,741.1	0.00	1,741.10	2,827.44	732.04	2,602.05	2,169.33	15.52	-2.83	0.811
60.00	-20.21	-20.98	0.00	-1,634.2	0.00	1,634.18	2,782.79	712.32	2,463.79	2,077.03	18.65	-3.14	0.795
65.00	-19.32	-20.57	0.00	-1,529.3	0.00	1,529.27	2,736.40	692.60	2,329.31	1,985.34	22.11	-3.47	0.778
70.00	-18.45	-20.16	0.00	-1,426.4	0.00	1,426.40	2,688.26	672.88	2,198.59	1,894.35	25.91	-3.8	0.761
75.00	-17.60	-19.75	0.00	-1,325.6	0.00	1,325.59	2,638.38	653.16	2,071.66	1,804.18	30.06	-4.13	0.742
80.00	-16.77	-19.34	0.00	-1,226.8	0.00	1,226.85	2,586.75	633.44	1,948.50	1,714.92	34.57	-4.47	0.723
85.00	-15.99	-19.06	0.00	-1,130.2	0.00	1,130.17	2,533.37	613.72	1,829.11	1,626.71	39.42	-4.81	0.702
86.08	-15.80	-18.87	0.00	-1,109.5	0.00	1,109.52	2,521.58	609.45	1,803.74	1,607.74	40.52	-4.89	0.697
90.00	-14.86	-18.61	0.00	-1,035.6	0.00	1,035.63	2,478.25	594.00	1,713.49	1,539.63	44.64	-5.16	0.680
91.00	-14.60	-18.41	0.00	-1,017.0	0.00	1,017.02	1,898.74	492.73	1,440.76	1,198.46	45.73	-5.23	0.858
95.00	-14.04	-18.05	0.00	-943.4	0.00	943.38	1,869.75	479.82	1,366.29	1,148.97	50.23	-5.52	0.830
100.00	-13.36	-17.65	0.00	-853.1	0.00	853.13	1,831.95	463.68	1,275.97	1,087.54	56.21	-5.92	0.793
105.00	-12.71	-17.25	0.00	-764.9	0.00	764.89	1,792.41	447.55	1,188.74	1,026.68	62.61	-6.32	0.754
110.00	-12.07	-16.85	0.00	-678.6	0.00	678.65	1,751.12	431.41	1,104.60	966.51	69.43	-6.72	0.711
115.00	-11.45	-16.46	0.00	-594.4	0.00	594.39	1,708.08	415.28	1,023.55	907.14	76.65	-7.11	0.664
120.00	-10.88	-16.20	0.00	-512.1	0.00	512.10	1,663.30	399.14	945.59	848.67	84.28	-7.49	0.612
120.83	-10.77	-16.02	0.00	-498.6	0.00	498.60	1,655.67	396.46	932.89	839.02	85.59	-7.56	0.602
125.00	-10.10	-15.64	0.00	-431.8	0.00	431.83	921.74	260.26	603.01	461.70	92.31	-7.86	0.950
130.00	-9.64	-15.28	0.00	-353.6	0.00	353.62	903.90	249.51	554.22	433.91	100.7	-8.21	0.829
135.00	-7.89	-13.05	0.00	-277.2	0.00	277.24	884.30	238.75	507.48	406.06	109.51	-8.65	0.695
140.00	-7.51	-12.69	0.00	-212.0	0.00	212.01	862.97	228.00	462.80	378.27	118.76	-9.05	0.572
145.00	-7.16	-12.36	0.00	-148.6	0.00	148.56	839.89	217.24	420.18	350.64	128.38	-9.38	0.435
149.00	-4.24	-7.72	0.00	-98.6	0.00	98.63	820.16	208.64	387.57	328.72	136.3	-9.59	0.307
150.00	-4.20	-7.53	0.00	-90.9	0.00	90.91	815.06	206.49	379.62	323.27	138.31	-9.64	0.288
155.00	-3.96	-7.21	0.00	-53.3	0.00	53.26	788.49	195.73	341.12	296.29	148.46	-9.82	0.186
159.00	-1.72	-4.57	0.00	-24.4	0.00	24.41	765.97	187.13	311.80	275.05	156.69	-9.91	0.092
160.00	-1.68	-4.48	0.00	-19.8	0.00	19.83	760.17	184.98	304.68	269.80	158.76	-9.93	0.076
160.00	-1.68	-4.48	0.00	-19.8	0.00	19.83	505.62	151.69	181.70	182.79	158.76	-9.93	0.113
164.00	-0.58	-0.55	0.00	-1.9	0.00	1.92	505.62	151.69	181.70	182.79	167.05	-9.96	0.012
165.00	-0.54	-0.52	0.00	-1.4	0.00	1.37	505.62	151.69	181.70	182.79	169.13	-9.96	0.009
166.00	-0.32	-0.17	0.00	-0.8	0.00	0.85	505.62	151.69	181.70	182.79	171.2	-9.96	0.005
170.00	-0.14	-0.06	0.00	-0.2	0.00	0.17	505.62	151.69	181.70	182.79	179.5	-9.96	0.001
173.00	0.00	-0.03	0.00	0.0	0.00	0.00	505.62	151.69	181.70	182.79	185.73	-9.96	0.000

Load Case: 1.2D + 1.0Di + 1.0Wi Normal	50 mph wind with 1" radial ice		30 Iterations
Gust Response Factor: 1.10	Ice Dead Load Factor	1.00	
Dead load Factor: 1.20			Ice Importance Factor 1.00
Wind Load Factor: 1.00			

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-59.40	-6.11	0.00	-779.0	0.00	778.96	4,119.85	1,104.25	5,009.78	4,037.34	0	0	0.207
5.00	-57.63	-6.06	0.00	-748.4	0.00	748.39	4,073.38	1,080.95	4,800.61	3,906.84	0.03	-0.06	0.206
10.00	-55.86	-6.00	0.00	-718.1	0.00	718.11	4,025.15	1,057.64	4,595.90	3,776.64	0.12	-0.12	0.204
15.00	-54.11	-5.94	0.00	-688.1	0.00	688.13	3,975.18	1,034.34	4,395.65	3,646.86	0.28	-0.18	0.202
20.00	-52.39	-5.88	0.00	-658.4	0.00	658.44	3,923.47	1,011.03	4,199.87	3,517.59	0.5	-0.24	0.201
25.00	-50.69	-5.82	0.00	-629.0	0.00	629.04	3,870.01	987.73	4,008.54	3,388.95	0.79	-0.31	0.199
30.00	-49.02	-5.76	0.00	-599.9	0.00	599.93	3,814.81	964.42	3,821.67	3,261.05	1.15	-0.37	0.197
35.00	-47.38	-5.70	0.00	-571.1	0.00	571.13	3,757.86	941.12	3,639.27	3,134.00	1.57	-0.44	0.195
40.00	-45.77	-5.64	0.00	-542.6	0.00	542.64	3,699.17	917.81	3,461.32	3,007.91	2.07	-0.51	0.193
43.58	-44.64	-5.60	0.00	-522.4	0.00	522.44	3,656.03	901.11	3,336.53	2,918.19	2.47	-0.56	0.191
45.00	-43.93	-5.56	0.00	-514.5	0.00	514.50	3,638.73	894.51	3,287.83	2,882.88	2.64	-0.58	0.191
49.50	-41.74	-5.51	0.00	-489.5	0.00	489.49	2,874.54	753.73	2,758.49	2,271.41	3.22	-0.65	0.230
50.00	-41.59	-5.47	0.00	-486.7	0.00	486.73	2,870.35	751.76	2,744.08	2,262.10	3.29	-0.65	0.230
55.00	-40.21	-5.40	0.00	-459.4	0.00	459.36	2,827.44	732.04	2,602.05	2,169.33	4.01	-0.73	0.226
60.00	-38.85	-5.33	0.00	-432.4	0.00	432.35	2,782.79	712.32	2,463.79	2,077.03	4.83	-0.82	0.222
65.00	-37.52	-5.25	0.00	-405.7	0.00	405.72	2,736.40	692.60	2,329.31	1,985.34	5.73	-0.9	0.218
70.00	-36.21	-5.17	0.00	-379.5	0.00	379.46	2,688.26	672.88	2,198.59	1,894.35	6.73	-0.99	0.214
75.00	-34.94	-5.09	0.00	-353.6	0.00	353.60	2,638.38	653.16	2,071.66	1,804.18	7.81	-1.08	0.209
80.00	-33.69	-5.01	0.00	-328.1	0.00	328.14	2,586.75	633.44	1,948.50	1,714.92	8.99	-1.17	0.204
85.00	-32.48	-4.95	0.00	-303.1	0.00	303.09	2,533.37	613.72	1,829.11	1,626.71	10.27	-1.26	0.199
86.08	-32.22	-4.92	0.00	-297.7	0.00	297.73	2,521.58	609.45	1,803.74	1,607.74	10.56	-1.28	0.198
90.00	-30.83	-4.85	0.00	-278.5	0.00	278.48	2,478.25	594.00	1,713.49	1,539.63	11.64	-1.36	0.193
91.00	-30.48	-4.82	0.00	-273.6	0.00	273.63	1,898.74	492.73	1,440.76	1,198.46	11.93	-1.38	0.244
95.00	-29.64	-4.75	0.00	-254.4	0.00	254.36	1,869.75	479.82	1,366.29	1,148.97	13.11	-1.45	0.237
100.00	-28.61	-4.67	0.00	-230.6	0.00	230.63	1,831.95	463.68	1,275.97	1,087.54	14.69	-1.56	0.228
105.00	-27.61	-4.59	0.00	-207.3	0.00	207.29	1,792.41	447.55	1,188.74	1,026.68	16.38	-1.67	0.217
110.00	-26.63	-4.51	0.00	-184.4	0.00	184.35	1,751.12	431.41	1,104.60	966.51	18.19	-1.78	0.206
115.00	-25.68	-4.42	0.00	-161.8	0.00	161.83	1,708.08	415.28	1,023.55	907.14	20.11	-1.88	0.194
120.00	-24.76	-4.36	0.00	-139.7	0.00	139.72	1,663.30	399.14	945.59	848.67	22.14	-1.99	0.180
120.83	-24.61	-4.33	0.00	-136.1	0.00	136.08	1,655.67	396.46	932.89	839.02	22.49	-2.01	0.177
125.00	-23.60	-4.24	0.00	-118.0	0.00	118.05	921.74	260.26	603.01	461.70	24.27	-2.09	0.282
130.00	-22.86	-4.16	0.00	-96.8	0.00	96.85	903.90	249.51	554.22	433.91	26.51	-2.18	0.249
135.00	-19.43	-3.54	0.00	-76.0	0.00	76.04	884.30	238.75	507.48	406.06	28.87	-2.31	0.209
140.00	-18.78	-3.46	0.00	-58.4	0.00	58.35	862.97	228.00	462.80	378.27	31.34	-2.41	0.176
145.00	-18.15	-3.38	0.00	-41.1	0.00	41.07	839.89	217.24	420.18	350.64	33.92	-2.51	0.139
149.00	-10.83	-2.14	0.00	-27.5	0.00	27.48	820.16	208.64	387.57	328.72	36.05	-2.57	0.097
150.00	-10.72	-2.09	0.00	-25.3	0.00	25.34	815.06	206.49	379.62	323.27	36.59	-2.58	0.092
155.00	-10.20	-2.00	0.00	-14.9	0.00	14.88	788.49	195.73	341.12	296.29	39.32	-2.63	0.063
159.00	-5.54	-1.24	0.00	-6.9	0.00	6.87	765.97	187.13	311.80	275.05	41.53	-2.65	0.032
160.00	-5.44	-1.20	0.00	-5.6	0.00	5.64	760.17	184.98	304.68	269.80	42.09	-2.66	0.028
160.00	-5.44	-1.20	0.00	-5.6	0.00	5.64	505.62	151.69	181.70	182.79	42.09	-2.66	0.042
164.00	-1.24	-0.21	0.00	-0.8	0.00	0.83	505.62	151.69	181.70	182.79	44.32	-2.67	0.007
165.00	-1.15	-0.19	0.00	-0.6	0.00	0.62	505.62	151.69	181.70	182.79	44.88	-2.67	0.006
166.00	-0.61	-0.09	0.00	-0.4	0.00	0.43	505.62	151.69	181.70	182.79	45.43	-2.67	0.004
170.00	-0.26	-0.03	0.00	-0.1	0.00	0.09	505.62	151.69	181.70	182.79	47.67	-2.67	0.001
173.00	0.00	-0.02	0.00	0.0	0.00	0.00	505.62	151.69	181.70	182.79	49.35	-2.67	0.000

Load Case: 1.0D + 1.0W Service Normal	60 mph Wind with No Ice	29 Iterations
Gust Response Factor: 1.10		
Dead load Factor: 1.00		
Wind Load Factor: 1.00		

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-38.14	-5.91	0.00	-712.8	0.00	712.85	4,119.85	1,104.25	5,009.78	4,037.34	0	0	0.186
5.00	-36.86	-5.83	0.00	-683.3	0.00	683.31	4,073.38	1,080.95	4,800.61	3,906.84	0.03	-0.05	0.184
10.00	-35.61	-5.74	0.00	-654.2	0.00	654.19	4,025.15	1,057.64	4,595.90	3,776.64	0.11	-0.11	0.182
15.00	-34.38	-5.66	0.00	-625.5	0.00	625.47	3,975.18	1,034.34	4,395.65	3,646.86	0.26	-0.16	0.180
20.00	-33.18	-5.59	0.00	-597.1	0.00	597.14	3,923.47	1,011.03	4,199.87	3,517.59	0.46	-0.22	0.178
25.00	-31.99	-5.51	0.00	-569.2	0.00	569.21	3,870.01	987.73	4,008.54	3,388.95	0.72	-0.28	0.176
30.00	-30.83	-5.43	0.00	-541.7	0.00	541.67	3,814.81	964.42	3,821.67	3,261.05	1.04	-0.34	0.174
35.00	-29.69	-5.35	0.00	-514.5	0.00	514.53	3,757.86	941.12	3,639.27	3,134.00	1.43	-0.4	0.172
40.00	-28.58	-5.28	0.00	-487.8	0.00	487.78	3,699.17	917.81	3,461.32	3,007.91	1.88	-0.46	0.170
43.58	-27.79	-5.23	0.00	-468.9	0.00	468.88	3,656.03	901.11	3,336.53	2,918.19	2.25	-0.51	0.168
45.00	-27.27	-5.18	0.00	-461.5	0.00	461.47	3,638.73	894.51	3,287.83	2,882.88	2.4	-0.53	0.168
49.50	-25.64	-5.12	0.00	-438.2	0.00	438.16	2,874.54	753.73	2,758.49	2,271.41	2.92	-0.58	0.202
50.00	-25.55	-5.08	0.00	-435.6	0.00	435.60	2,870.35	751.76	2,744.08	2,262.10	2.98	-0.59	0.202
55.00	-24.61	-4.99	0.00	-410.2	0.00	410.20	2,827.44	732.04	2,602.05	2,169.33	3.64	-0.66	0.198
60.00	-23.70	-4.90	0.00	-385.2	0.00	385.25	2,782.79	712.32	2,463.79	2,077.03	4.38	-0.74	0.194
65.00	-22.80	-4.81	0.00	-360.7	0.00	360.74	2,736.40	692.60	2,329.31	1,985.34	5.19	-0.81	0.190
70.00	-21.92	-4.72	0.00	-336.7	0.00	336.68	2,688.26	672.88	2,198.59	1,894.35	6.09	-0.89	0.186
75.00	-21.07	-4.63	0.00	-313.1	0.00	313.09	2,638.38	653.16	2,071.66	1,804.18	7.06	-0.97	0.182
80.00	-20.23	-4.53	0.00	-290.0	0.00	289.95	2,586.75	633.44	1,948.50	1,714.92	8.12	-1.05	0.177
85.00	-19.41	-4.47	0.00	-267.3	0.00	267.28	2,533.37	613.72	1,829.11	1,626.71	9.27	-1.13	0.172
86.08	-19.24	-4.43	0.00	-262.4	0.00	262.44	2,521.58	609.45	1,803.74	1,607.74	9.53	-1.15	0.171
90.00	-18.23	-4.37	0.00	-245.1	0.00	245.09	2,478.25	594.00	1,713.49	1,539.63	10.5	-1.22	0.167
91.00	-17.98	-4.33	0.00	-240.7	0.00	240.72	1,898.74	492.73	1,440.76	1,198.46	10.75	-1.23	0.210
95.00	-17.43	-4.25	0.00	-223.4	0.00	223.42	1,869.75	479.82	1,366.29	1,148.97	11.81	-1.3	0.204
100.00	-16.76	-4.16	0.00	-202.2	0.00	202.19	1,831.95	463.68	1,275.97	1,087.54	13.23	-1.39	0.195
105.00	-16.10	-4.07	0.00	-181.4	0.00	181.41	1,792.41	447.55	1,188.74	1,026.68	14.74	-1.49	0.186
110.00	-15.46	-3.98	0.00	-161.1	0.00	161.07	1,751.12	431.41	1,104.60	966.51	16.35	-1.58	0.176
115.00	-14.84	-3.89	0.00	-141.2	0.00	141.17	1,708.08	415.28	1,023.55	907.14	18.06	-1.68	0.164
120.00	-14.23	-3.83	0.00	-121.7	0.00	121.71	1,663.30	399.14	945.59	848.67	19.86	-1.77	0.152
120.83	-14.13	-3.79	0.00	-118.5	0.00	118.52	1,655.67	396.46	932.89	839.02	20.17	-1.78	0.150
125.00	-13.43	-3.71	0.00	-102.7	0.00	102.71	921.74	260.26	603.01	461.70	21.76	-1.86	0.237
130.00	-12.97	-3.63	0.00	-84.2	0.00	84.18	903.90	249.51	554.22	433.91	23.75	-1.94	0.209
135.00	-10.79	-3.10	0.00	-66.0	0.00	66.05	884.30	238.75	507.48	406.06	25.84	-2.04	0.175
140.00	-10.39	-3.02	0.00	-50.6	0.00	50.55	862.97	228.00	462.80	378.27	28.03	-2.14	0.146
145.00	-10.00	-2.95	0.00	-35.4	0.00	35.44	839.89	217.24	420.18	350.64	30.31	-2.22	0.113
149.00	-6.01	-1.84	0.00	-23.6	0.00	23.55	820.16	208.64	387.57	328.72	32.2	-2.27	0.079
150.00	-5.95	-1.80	0.00	-21.7	0.00	21.71	815.06	206.49	379.62	323.27	32.67	-2.28	0.075
155.00	-5.64	-1.72	0.00	-12.7	0.00	12.72	788.49	195.73	341.12	296.29	35.08	-2.32	0.050
159.00	-2.72	-1.09	0.00	-5.8	0.00	5.83	765.97	187.13	311.80	275.05	37.04	-2.34	0.025
160.00	-2.66	-1.07	0.00	-4.7	0.00	4.74	760.17	184.98	304.68	269.80	37.53	-2.35	0.021
160.00	-2.66	-1.07	0.00	-4.7	0.00	4.74	505.62	151.69	181.70	182.79	37.53	-2.35	0.031
164.00	-0.74	-0.14	0.00	-0.5	0.00	0.48	505.62	151.69	181.70	182.79	39.5	-2.36	0.004
165.00	-0.68	-0.13	0.00	-0.3	0.00	0.34	505.62	151.69	181.70	182.79	40	-2.36	0.003
166.00	-0.38	-0.04	0.00	-0.2	0.00	0.22	505.62	151.69	181.70	182.79	40.49	-2.36	0.002
170.00	-0.16	-0.01	0.00	-0.0	0.00	0.04	505.62	151.69	181.70	182.79	42.46	-2.36	0.001
173.00	0.00	-0.01	0.00	0.0	0.00	0.00	505.62	151.69	181.70	182.79	43.94	-2.36	0.000

EQUIVALENT LATERAL FORCES METHOD ANALYSIS

(Based on ASCE7-16 Chapters 11, 12 and 15)

Spectral Response Acceleration for Short Period (S_S):	0.200
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.054
Long-Period Transition Period (T_L – Seconds):	6
Importance Factor (I_a):	1.000
Site Coefficient F_a :	1.600
Site Coefficient F_v :	2.400
Response Modification Coefficient (R):	1.500
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.213
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.086
Seismic Response Coefficient (C_s):	0.030
Upper Limit C_s :	0.030
Lower Limit C_s :	0.030
Period based on Rayleigh Method (sec):	3.470
Redundancy Factor (ρ):	1.000
Seismic Force Distribution Exponent (k):	2.000
Total Unfactored Dead Load:	38.140 k
Seismic Base Shear (E):	1.140 k

1.2D + 1.0Ev + 1.0Eh Normal Seismic

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
44	171.5	164	4,819	0.012	13	204
43	168	218	6,166	0.015	17	271
42	165.5	58	1,600	0.004	4	73
41	164.5	58	1,580	0.004	4	73
40	162.0001	313	8,213	0.020	23	389
39	159.5001	60	1,519	0.004	4	74
38	157	243	5,988	0.014	17	302
37	152.5	313	7,281	0.018	20	389
36	149.5	64	1,427	0.004	4	79
35	147	303	6,544	0.016	18	376
34	142.5	388	7,877	0.019	22	482
33	137.5	398	7,531	0.018	21	495
32	132.5	447	7,840	0.019	22	555
31	127.5	457	7,429	0.018	21	568
30	122.9167	704	10,631	0.026	29	874
29	120.4167	99	1,439	0.004	4	123
28	117.5	605	8,348	0.020	23	751
27	112.5	620	7,851	0.019	22	771
26	107.5	636	7,349	0.018	20	790
25	102.5	652	6,846	0.017	19	810
24	97.5	667	6,343	0.015	18	829
23	93	545	4,714	0.011	13	677
22	90.5	253	2,069	0.005	6	314
21	88.0417	1,003	7,773	0.019	22	1,246
20	85.5417	174	1,273	0.003	4	216
19	82.5	814	5,543	0.013	15	1,012
18	77.5	834	5,007	0.012	14	1,036
17	72.5	853	4,482	0.011	12	1,060
16	67.5	872	3,972	0.010	11	1,083
15	62.5	891	3,480	0.008	10	1,107
14	57.5	910	3,009	0.007	8	1,131
13	52.5	929	2,561	0.006	7	1,155
12	49.75	94	233	0.001	1	117
11	47.25	1,626	3,629	0.009	10	2,020

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
10	44.2917	519	1,018	0.002	3	645
9	41.7917	782	1,366	0.003	4	972
8	37.5	1,111	1,562	0.004	4	1,381
7	32.5	1,134	1,197	0.003	3	1,409
6	27.5	1,156	874	0.002	2	1,437
5	22.5	1,179	597	0.001	2	1,465
4	17.5	1,201	368	0.001	1	1,493
3	12.5	1,224	191	0.000	1	1,521
2	7.5	1,247	70	0.000	0	1,549
1	2.5	1,269	8	0.000	0	1,577
Ericsson Air 6449 B77D	166	245	6,746	0.016	19	304
Raycap DC6-48-60-18-8F (23.5" Height)	164	40	1,076	0.003	3	50
Ericsson RRUS 4426 B66	164	145	3,905	0.009	11	180
Ericsson RRUS 4449 B5, B12	164	213	5,729	0.014	16	265
Ericsson RRUS 4478 B14	164	178	4,793	0.012	13	221
Ericsson RRUS 32 B2	164	159	4,276	0.010	12	198
Ericsson RRUS 32 B30	164	180	4,841	0.012	13	224
Ericsson AIR 6419 B77G	164	198	5,333	0.013	15	246
Raycap DC9-48-60-24-8C-EV	164	16	430	0.001	1	20
CCI DMP65R-BU6DA	164	79	2,136	0.005	6	99
CCI TPA-65R-BU6DA-K	164	80	2,141	0.005	6	99
CCI DMP65R-BU8D	164	191	5,148	0.012	14	238
CCI TPA65R-BU8D	164	165	4,438	0.011	12	205
Generic Mount Reinforcement	159	200	5,056	0.012	14	249
Generic Flat Platform with Handrails	159	2,500	63,202	0.153	175	3,107
Generic Flat Platform with Handrails	149	2,500	55,502	0.134	154	3,107
Commscope CBC78T-DS-43-2X	149	62	1,379	0.003	4	77
Samsung B2/B66A RRH-BR049	149	253	5,621	0.014	16	315
Samsung B5/B13 RRH-BR04C	149	211	4,682	0.011	13	262
Andrew DB844H80E-XY	149	60	1,332	0.003	4	75
Raycap RCMDC-6627-PF-48	149	32	710	0.002	2	40
Samsung MT6407-77A	149	245	5,435	0.013	15	304
Commscope JAHH-65B-R3B	149	364	8,072	0.020	22	452
Generic 42" x 6" Panel	135	240	4,374	0.011	12	298
Flat Low Profile Platform	135	1,500	27,338	0.066	76	1,864
		38,141	413,316	1.000	1,144	47,397

0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
44	171.5	164	4,819	0.012	13	140
43	168	218	6,166	0.015	17	187
42	165.5	58	1,600	0.004	4	50
41	164.5	58	1,580	0.004	4	50
40	162.0001	313	8,213	0.020	23	268
39	159.5001	60	1,519	0.004	4	51
38	157	243	5,988	0.014	17	208
37	152.5	313	7,281	0.018	20	268
36	149.5	64	1,427	0.004	4	55
35	147	303	6,544	0.016	18	260
34	142.5	388	7,877	0.019	22	333
33	137.5	398	7,531	0.018	21	342
32	132.5	447	7,840	0.019	22	383
31	127.5	457	7,429	0.018	21	392
30	122.9167	704	10,631	0.026	29	603
29	120.4167	99	1,439	0.004	4	85
28	117.5	605	8,348	0.020	23	518
27	112.5	620	7,851	0.019	22	532
26	107.5	636	7,349	0.018	20	545
25	102.5	652	6,846	0.017	19	559
24	97.5	667	6,343	0.015	18	572
23	93	545	4,714	0.011	13	467

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
22	90.5	253	2,069	0.005	6	217
21	88.0417	1,003	7,773	0.019	22	860
20	85.5417	174	1,273	0.003	4	149
19	82.5	814	5,543	0.013	15	698
18	77.5	834	5,007	0.012	14	715
17	72.5	853	4,482	0.011	12	731
16	67.5	872	3,972	0.010	11	747
15	62.5	891	3,480	0.008	10	764
14	57.5	910	3,009	0.007	8	780
13	52.5	929	2,561	0.006	7	797
12	49.75	94	233	0.001	1	81
11	47.25	1,626	3,629	0.009	10	1,394
10	44.2917	519	1,018	0.002	3	445
9	41.7917	782	1,366	0.003	4	671
8	37.5	1,111	1,562	0.004	4	952
7	32.5	1,134	1,197	0.003	3	972
6	27.5	1,156	874	0.002	2	991
5	22.5	1,179	597	0.001	2	1,011
4	17.5	1,201	368	0.001	1	1,030
3	12.5	1,224	191	0.000	1	1,049
2	7.5	1,247	70	0.000	0	1,069
1	2.5	1,269	8	0.000	0	1,088
Ericsson Air 6449 B77D	166	245	6,746	0.016	19	210
Raycap DC6-48-60-18-8F (23.5" Height)	164	40	1,076	0.003	3	34
Ericsson RRUS 4426 B66	164	145	3,905	0.009	11	124
Ericsson RRUS 4449 B5, B12	164	213	5,729	0.014	16	183
Ericsson RRUS 4478 B14	164	178	4,793	0.012	13	153
Ericsson RRUS 32 B2	164	159	4,276	0.010	12	136
Ericsson RRUS 32 B30	164	180	4,841	0.012	13	154
Ericsson AIR 6419 B77G	164	198	5,333	0.013	15	170
Raycap DC9-48-60-24-8C-EV	164	16	430	0.001	1	14
CCI DMP65R-BU6DA	164	79	2,136	0.005	6	68
CCI TPA-65R-BU6DA-K	164	80	2,141	0.005	6	68
CCI DMP65R-BU8D	164	191	5,148	0.012	14	164
CCI TPA65R-BU8D	164	165	4,438	0.011	12	141
Generic Mount Reinforcement	159	200	5,056	0.012	14	171
Generic Flat Platform with Handrails	159	2,500	63,202	0.153	175	2,143
Generic Flat Platform with Handrails	149	2,500	55,502	0.134	154	2,143
Commscope CBC78T-DS-43-2X	149	62	1,379	0.003	4	53
Samsung B2/B66A RRH-BR049	149	253	5,621	0.014	16	217
Samsung B5/B13 RRH-BR04C	149	211	4,682	0.011	13	181
Andrew DB844H80E-XY	149	60	1,332	0.003	4	51
Raycap RCMDC-6627-PF-48	149	32	710	0.002	2	27
Samsung MT6407-77A	149	245	5,435	0.013	15	210
Commscope JAHH-65B-BR3B	149	364	8,072	0.020	22	312
Generic 42" x 6" Panel	135	240	4,374	0.011	12	206
Flat Low Profile Platform	135	1,500	27,338	0.066	76	1,286
		38,141	413,316	1.000	1,144	32,700

1.2D + 1.0Ev + 1.0Eh Normal Seismic

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-45.82	-1.15	0.00	-169.95	0.00	169.95	4,119.85	1,104.25	5,010	4,037.34	0.00	0.00	0.05
5.00	-44.27	-1.16	0.00	-164.21	0.00	164.21	4,073.38	1,080.95	4,801	3,906.84	0.01	-0.01	0.05
10.00	-42.75	-1.17	0.00	-158.42	0.00	158.42	4,025.15	1,057.64	4,596	3,776.64	0.03	-0.03	0.05
15.00	-41.26	-1.17	0.00	-152.59	0.00	152.59	3,975.18	1,034.34	4,396	3,646.86	0.06	-0.04	0.05
20.00	-39.79	-1.18	0.00	-146.71	0.00	146.71	3,923.47	1,011.03	4,200	3,517.59	0.11	-0.05	0.05
25.00	-38.35	-1.19	0.00	-140.81	0.00	140.81	3,870.01	987.73	4,009	3,388.95	0.17	-0.07	0.05
30.00	-36.95	-1.19	0.00	-134.87	0.00	134.87	3,814.81	964.42	3,822	3,261.05	0.25	-0.08	0.05
35.00	-35.56	-1.20	0.00	-128.91	0.00	128.91	3,757.86	941.12	3,639	3,134.00	0.35	-0.10	0.05
40.00	-34.59	-1.20	0.00	-122.93	0.00	122.93	3,699.17	917.81	3,461	3,007.91	0.46	-0.11	0.05
43.58	-33.95	-1.20	0.00	-118.64	0.00	118.64	3,656.03	901.11	3,337	2,918.19	0.55	-0.12	0.05

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
45.00	-31.93	-1.19	0.00	-116.94	0.00	116.94	3,638.73	894.51	3,288	2,882.88	0.59	-0.13	0.05
49.50	-31.81	-1.19	0.00	-111.59	0.00	111.59	2,874.54	753.73	2,758	2,271.41	0.71	-0.14	0.06
50.00	-30.66	-1.19	0.00	-111.00	0.00	111.00	2,870.35	751.76	2,744	2,262.10	0.73	-0.15	0.06
55.00	-29.52	-1.19	0.00	-105.05	0.00	105.05	2,827.44	732.04	2,602	2,169.33	0.89	-0.16	0.06
60.00	-28.42	-1.18	0.00	-99.12	0.00	99.12	2,782.79	712.32	2,464	2,077.03	1.08	-0.18	0.06
65.00	-27.33	-1.18	0.00	-93.20	0.00	93.20	2,736.40	692.60	2,329	1,985.34	1.28	-0.20	0.06
70.00	-26.27	-1.17	0.00	-87.31	0.00	87.31	2,688.26	672.88	2,199	1,894.35	1.50	-0.22	0.06
75.00	-25.24	-1.16	0.00	-81.46	0.00	81.46	2,638.38	653.16	2,072	1,804.18	1.75	-0.24	0.06
80.00	-24.22	-1.15	0.00	-75.65	0.00	75.65	2,586.75	633.44	1,948	1,714.92	2.02	-0.27	0.05
85.00	-24.01	-1.15	0.00	-69.89	0.00	69.89	2,533.37	613.72	1,829	1,626.71	2.30	-0.29	0.05
86.08	-22.76	-1.13	0.00	-68.64	0.00	68.64	2,521.58	609.45	1,804	1,607.74	2.37	-0.29	0.05
90.00	-22.45	-1.13	0.00	-64.22	0.00	64.22	2,478.25	594.00	1,713	1,539.63	2.62	-0.31	0.05
91.00	-21.77	-1.11	0.00	-63.10	0.00	63.10	1,898.74	492.73	1,441	1,198.46	2.68	-0.31	0.06
95.00	-20.94	-1.10	0.00	-58.64	0.00	58.64	1,869.75	479.82	1,366	1,148.97	2.95	-0.33	0.06
100.00	-20.13	-1.08	0.00	-53.15	0.00	53.15	1,831.95	463.68	1,276	1,087.54	3.31	-0.35	0.06
105.00	-19.34	-1.07	0.00	-47.73	0.00	47.73	1,792.41	447.55	1,189	1,026.68	3.69	-0.38	0.06
110.00	-18.57	-1.05	0.00	-42.40	0.00	42.40	1,751.12	431.41	1,105	966.51	4.10	-0.40	0.05
115.00	-17.82	-1.03	0.00	-37.16	0.00	37.16	1,708.08	415.28	1,024	907.14	4.54	-0.43	0.05
120.00	-17.69	-1.03	0.00	-32.03	0.00	32.03	1,663.30	399.14	946	848.67	5.00	-0.45	0.05
120.83	-16.82	-0.99	0.00	-31.17	0.00	31.17	1,655.67	396.46	933	839.02	5.08	-0.46	0.05
125.00	-16.25	-0.97	0.00	-27.04	0.00	27.04	921.74	260.26	603	461.70	5.49	-0.48	0.08
130.00	-15.70	-0.95	0.00	-22.17	0.00	22.17	903.90	249.51	554	433.91	6.00	-0.50	0.07
135.00	-13.04	-0.83	0.00	-17.40	0.00	17.40	884.30	238.75	507	406.06	6.54	-0.53	0.06
140.00	-12.56	-0.81	0.00	-13.26	0.00	13.26	862.97	228.00	463	378.27	7.10	-0.55	0.05
145.00	-12.18	-0.79	0.00	-9.22	0.00	9.22	839.89	217.24	420	350.64	7.69	-0.57	0.04
149.00	-7.47	-0.51	0.00	-6.07	0.00	6.07	820.16	208.64	388	328.72	8.18	-0.58	0.03
150.00	-7.08	-0.49	0.00	-5.56	0.00	5.56	815.06	206.49	380	323.27	8.30	-0.59	0.03
155.00	-6.78	-0.47	0.00	-3.13	0.00	3.13	788.49	195.73	341	296.29	8.92	-0.60	0.02
159.00	-3.36	-0.24	0.00	-1.26	0.00	1.26	765.97	187.13	312	275.05	9.43	-0.60	0.01
160.00	-2.97	-0.21	0.00	-1.03	0.00	1.03	760.17	184.98	305	269.80	9.55	-0.60	0.01
160.00	-2.97	-0.21	0.00	-1.03	0.00	1.03	505.62	151.69	182	182.79	9.55	-0.60	0.01
164.00	-0.85	-0.06	0.00	-0.18	0.00	0.18	505.62	151.69	182	182.79	10.06	-0.61	0.00
165.00	-0.78	-0.06	0.00	-0.12	0.00	0.12	505.62	151.69	182	182.79	10.19	-0.61	0.00
166.00	-0.20	-0.02	0.00	-0.06	0.00	0.06	505.62	151.69	182	182.79	10.31	-0.61	0.00
170.00	0.00	0.00	0.00	0.00	0.00	0.00	505.62	151.69	182	182.79	10.82	-0.61	0.00
173.00	0.00	0.00	0.00	0.00	0.00	0.00	505.62	151.69	182	182.79	11.20	-0.61	0.00

0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-31.61	-1.15	0.00	-164.94	0.00	164.94	4,119.85	1,104.25	5,010	4,037.34	0.00	0.00	0.05
5.00	-30.54	-1.15	0.00	-159.20	0.00	159.20	4,073.38	1,080.95	4,801	3,906.84	0.01	-0.01	0.05
10.00	-29.49	-1.16	0.00	-153.44	0.00	153.44	4,025.15	1,057.64	4,596	3,776.64	0.03	-0.03	0.05
15.00	-28.46	-1.16	0.00	-147.64	0.00	147.64	3,975.18	1,034.34	4,396	3,646.86	0.06	-0.04	0.05
20.00	-27.45	-1.17	0.00	-141.82	0.00	141.82	3,923.47	1,011.03	4,200	3,517.59	0.11	-0.05	0.05
25.00	-26.46	-1.17	0.00	-135.98	0.00	135.98	3,870.01	987.73	4,009	3,388.95	0.17	-0.07	0.05
30.00	-25.49	-1.17	0.00	-130.13	0.00	130.13	3,814.81	964.42	3,822	3,261.05	0.24	-0.08	0.05
35.00	-24.54	-1.17	0.00	-124.27	0.00	124.27	3,757.86	941.12	3,639	3,134.00	0.34	-0.09	0.05
40.00	-23.86	-1.17	0.00	-118.40	0.00	118.40	3,699.17	917.81	3,461	3,007.91	0.44	-0.11	0.05
43.58	-23.42	-1.17	0.00	-114.19	0.00	114.19	3,656.03	901.11	3,337	2,918.19	0.53	-0.12	0.05
45.00	-22.03	-1.16	0.00	-112.53	0.00	112.53	3,638.73	894.51	3,288	2,882.88	0.57	-0.13	0.05
49.50	-21.95	-1.17	0.00	-107.29	0.00	107.29	2,874.54	753.73	2,758	2,271.41	0.69	-0.14	0.06
50.00	-21.15	-1.16	0.00	-106.71	0.00	106.71	2,870.35	751.76	2,744	2,262.10	0.71	-0.14	0.06
55.00	-20.37	-1.16	0.00	-100.90	0.00	100.90	2,827.44	732.04	2,602	2,169.33	0.86	-0.16	0.05
60.00	-19.60	-1.15	0.00	-95.12	0.00	95.12	2,782.79	712.32	2,464	2,077.03	1.04	-0.18	0.05
65.00	-18.86	-1.14	0.00	-89.36	0.00	89.36	2,736.40	692.60	2,329	1,985.34	1.24	-0.20	0.05
70.00	-18.12	-1.14	0.00	-83.64	0.00	83.64	2,688.26	672.88	2,199	1,894.35	1.45	-0.22	0.05
75.00	-17.41	-1.12	0.00	-77.96	0.00	77.96	2,638.38	653.16	2,072	1,804.18	1.69	-0.24	0.05
80.00	-16.71	-1.11	0.00	-72.34	0.00	72.34	2,586.75	633.44	1,948	1,714.92	1.94	-0.26	0.05
85.00	-16.56	-1.11	0.00	-66.78	0.00	66.78	2,533.37	613.72	1,829	1,626.71	2.22	-0.28	0.05
86.08	-15.70	-1.09	0.00	-65.58	0.00	65.58	2,521.58	609.45	1,804	1,607.74	2.29	-0.28	0.05
90.00	-15.49	-1.08	0.00	-61.31	0.00	61.31	2,478.25	594.00	1,713	1,539.63	2.52	-0.30	0.05
91.00	-15.02	-1.07	0.00	-60.23	0.00	60.23	1,898.74	492.73	1,441	1,198.46	2.58	-0.30	0.06
95.00	-14.45	-1.06	0.00	-55.94	0.00	55.94	1,869.75	479.82	1,366	1,148.97	2.84	-0.32	0.06
100.00	-13.89	-1.04	0.00	-50.66	0.00	50.66	1,831.95	463.68	1,276	1,087.54	3.19	-0.34	0.05
105.00	-13.34	-1.02	0.00	-45.45	0.00	45.45	1,792.41	447.55	1,189	1,026.68	3.56	-0.36	0.05

ASSET: 302524, Beacon Falls
 CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
 ENG NO: 13753210_C3_03

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
110.00	-12.81	-1.00	0.00	-40.34	0.00	40.34	1,751.12	431.41	1,105	966.51	3.95	-0.39	0.05
115.00	-12.29	-0.98	0.00	-35.33	0.00	35.33	1,708.08	415.28	1,024	907.14	4.37	-0.41	0.05
120.00	-12.21	-0.98	0.00	-30.43	0.00	30.43	1,663.30	399.14	946	848.67	4.82	-0.43	0.04
120.83	-11.60	-0.95	0.00	-29.62	0.00	29.62	1,655.67	396.46	933	839.02	4.89	-0.44	0.04
125.00	-11.21	-0.93	0.00	-25.67	0.00	25.67	921.74	260.26	603	461.70	5.28	-0.46	0.07
130.00	-10.83	-0.91	0.00	-21.04	0.00	21.04	903.90	249.51	554	433.91	5.77	-0.48	0.06
135.00	-8.99	-0.79	0.00	-16.50	0.00	16.50	884.30	238.75	507	406.06	6.29	-0.50	0.05
140.00	-8.66	-0.76	0.00	-12.57	0.00	12.57	862.97	228.00	463	378.27	6.83	-0.53	0.04
145.00	-8.40	-0.75	0.00	-8.75	0.00	8.75	839.89	217.24	420	350.64	7.39	-0.55	0.04
149.00	-5.15	-0.48	0.00	-5.76	0.00	5.76	820.16	208.64	388	328.72	7.85	-0.56	0.02
150.00	-4.89	-0.46	0.00	-5.28	0.00	5.28	815.06	206.49	380	323.27	7.97	-0.56	0.02
155.00	-4.68	-0.44	0.00	-2.97	0.00	2.97	788.49	195.73	341	296.29	8.57	-0.57	0.02
159.00	-2.31	-0.23	0.00	-1.20	0.00	1.20	765.97	187.13	312	275.05	9.05	-0.58	0.01
160.00	-2.05	-0.20	0.00	-0.97	0.00	0.97	760.17	184.98	305	269.80	9.17	-0.58	0.01
160.00	-2.05	-0.20	0.00	-0.97	0.00	0.97	505.62	151.69	182	182.79	9.17	-0.58	0.01
164.00	-0.59	-0.06	0.00	-0.17	0.00	0.17	505.62	151.69	182	182.79	9.65	-0.58	0.00
165.00	-0.54	-0.05	0.00	-0.11	0.00	0.11	505.62	151.69	182	182.79	9.77	-0.58	0.00
166.00	-0.14	-0.01	0.00	-0.06	0.00	0.06	505.62	151.69	182	182.79	9.90	-0.58	0.00
170.00	0.00	0.00	0.00	0.00	0.00	0.00	505.62	151.69	182	182.79	10.38	-0.58	0.00
173.00	0.00	0.00	0.00	0.00	0.00	0.00	505.62	151.69	182	182.79	10.75	-0.58	0.00

ASSET: 302524, Beacon Falls
 CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
 ENG NO: 13753210_C3_03

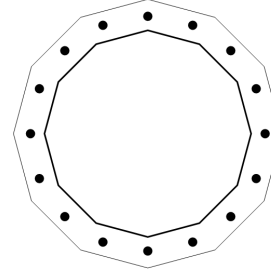
ANALYSIS SUMMARY

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.0W Normal	25.53	0.00	45.72	0.00	0.00	3114.15	125.00	0.99
0.9D + 1.0W Normal	25.51	0.00	34.28	0.00	0.00	3043.69	125.00	0.95
1.2D + 1.0Di + 1.0Wi Normal	6.11	0.00	59.40	0.00	0.00	778.96	125.00	0.28
1.2D + 1.0Ev + 1.0Eh Normal	1.20	0.00	45.82	0.00	0.00	169.95	125.00	0.08
0.9D - 1.0Ev + 1.0Eh Normal	1.17	0.00	31.61	0.00	0.00	164.94	125.00	0.07
1.0D + 1.0W Service Normal	5.91	0.00	38.14	0.00	0.00	712.85	125.00	0.24

BASE PLATE ANALYSIS @ 0 FT

PLATE PARAMETERS (ID# 15820)

Diameter:	62.71	in
Shape:	12	
Thickness:	2.75	in
Grade:	A633 Gr. E	
Yield Strength:	60	ksi
Tensile Strength:	80	ksi
Rod Detail Type:	c	
Clear Distance	-	in
Base Weld Size:	0.125	in
Orientation Offset:	-	°
Analysis Type:	Plastic	
Neutral Axis:	236	°



ANCHOR ROD PARAMETERS

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	Fy (ksi)	Fu (ksi)	Spacing (in)	Offset (°)
Original [ID# 16192]	Radial	16	2.25	56.71	A615-75	75	100	-	-

ANCHOR ROD GEOMETRY AND APPLIED LOADS --- ORIGINAL (16) 2.25"Ø [ID 16192]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in ⁴)	Axial Load (k)	Shear Load (k)
1	0.393	26.20	10.85	14.926	724.354	140.51	2.08
2	0.785	20.05	20.05	5.160	87.309	140.51	2.44
3	1.178	10.85	26.20	-5.391	95.241	-129.08	2.44
4	1.571	0.00	28.36	-15.122	743.502	-129.08	2.06
5	1.963	-10.85	26.20	-22.550	1652.350	-129.08	1.38
6	2.356	-20.05	20.05	-26.546	2289.394	-129.08	0.48
7	2.749	-26.20	10.85	-26.500	2281.463	-129.08	0.50
8	3.142	-28.36	0.00	-22.419	1633.202	-129.08	1.39
9	3.534	-26.20	-10.85	-14.926	724.354	-129.08	2.08
10	3.927	-20.05	-20.05	-5.160	87.309	-129.08	2.44
11	4.320	-10.85	-26.20	5.391	95.241	140.51	2.44
12	4.712	0.00	-28.36	15.122	743.502	140.51	2.06
13	5.105	10.85	-26.20	22.550	1652.350	140.51	1.38
14	5.498	20.05	-20.05	26.546	2289.394	140.51	0.48
15	5.890	26.20	-10.85	26.500	2281.463	140.51	0.50
16	6.283	28.36	0.00	22.419	1633.202	140.51	1.39

REACTION DISTRIBUTION

Component	ID	Moment Mu (k-ft)	Axial Load Pu (k)	Shear Vu (k)	Moment Factor
Pole	48.5"Ø x 0.4063" (12 Sides)	3114.2	45.72	25.53	1.000
Bolt Group	Original (16) 2.25"Ø	3114.2	-	25.53	1.000
TOTALS		3114.15	45.72	25.53	

ASSET: 302524, Beacon Falls
 CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
 ENG NO: 13753210

COMPONENT PROPERTIES

Component	ID	Gross Area (in ²)	Net Area (in ²)	Individual Inertia (in ⁴)	Moment of Inertia (in ⁴)	Threads/in
Pole	48.5"ø x 0.4063" (12 Sides)	60.6894	-	-	17550.19	-
Bolt Group	Original (16) 2.25"ø	3.9761	3.2477	0.8393	19013.63	4.5

EXTERNAL BASE PLATE BEND LINE ANALYSIS @ 0 FT

POLE PROPERTIES

Flat-to-Flat Diameter: 48.62 in
 Point-to-Point Diameter: 50.34 in
 Flat Width: 13.029 in
 Flat Radians: 0.524 rad

PLATE PROPERTIES

Neutral Axis: 236 °
 Bend Line Lower Limit: 5.276 rad
 Bend Line Upper Limit: 6.112 rad

Bend Line	Chord Length (in)	Additional Length (in)	Section Modulus (in ³)	Applied Moment Mu (k-in)	Moment Capacity φMn (k-in)	Ratio
Flat	35.322	0.00	66.780	761.0	3606.1	0.211
Corner	32.831	0.00	62.071	465.7	3351.8	0.139
Circumferential	37.214	0.00	70.359	644.7	3799.4	0.170

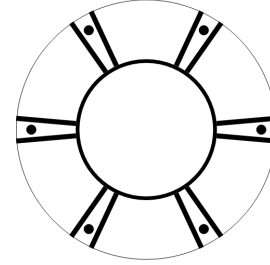
PLASTIC ANCHOR ROD ANALYSIS

Class	Group Quantity	Rod Diameter (in)	Applied Axial Load Pu (k)	Applied Shear Load Vu (k)	Compressive Capacity φPn (k)	Ratio
Original	16	2.25	140.6	2.4	243.6	0.577

UPPER FLANGE PLATE ANALYSIS @ 160 FT

PLATE PARAMETERS (ID# 17166)

Diameter: 26 in
 Shape: Round
 Thickness: 0.375 in
 Grade: A36
 Yield Strength: 36 ksi
 Tensile Strength: 58 ksi
 Pole Weld Size: 0.125 in
 Orientation Offset: - °
 Analysis Type: Plastic
 Neutral Axis: 0 °

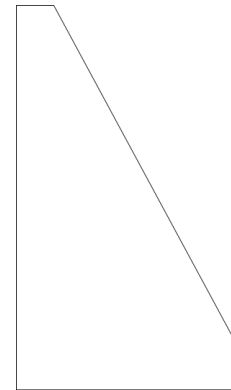


FLANGE BOLT PARAMETERS

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	Fy (ksi)	Fu (ksi)	Spacing (in)	Offset (°)
Original [ID# 17573]	Radial	6	1	23	A615-75	75	100	-	-

STIFFENER PARAMETERS

Arrangement: Radial
 Quantity: 12
 Height: 10.25 in
 Width: 6 in
 Thickness: 0.375 in
 Notch: 0 in
 Grade: A36
 Yield Strength: 36 ksi
 Tensile Strength: 58 ksi
 Horizontal Weld Type: Fillet
 Horizontal Weld Fillet Size: 0.125 in
 Vertical Weld Fillet Size: 0.125 in
 Weld Strength: 70 ksi
 Orientation Offset: - °



FLANGE BOLT GEOMETRY AND APPLIED LOADS --- ORIGINAL (6) 1"Ø [ID 17573]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in ⁴)	Axial Load (k)	Shear Load (k)
1	1.047	5.75	9.96	9.418	53.758	7.40	0.67
2	2.094	-5.75	9.96	9.418	53.758	7.40	0.67
3	3.142	-11.50	0.00	0.000	0.029	7.40	1.34
4	4.189	-5.75	-9.96	-9.418	53.758	-5.76	0.67
5	5.236	5.75	-9.96	-9.418	53.758	-5.76	0.67
6	6.283	11.50	0.00	0.000	0.029	7.40	1.34

STIFFENER GEOMETRY AND APPLIED LOADS

Position	Radians	Moment Arm (in)	Inertia (in ⁴)	Axial Load (k)	Shear Load (k)
1	0.087	0.872	8.237	0.43	0.49
2	0.960	8.192	138.118	2.68	0.28
3	1.134	9.063	167.559	2.95	0.21
4	2.007	9.063	167.559	2.95	0.21
5	2.182	8.192	138.118	2.68	0.28
6	3.054	0.872	8.237	0.43	0.49
7	3.229	-0.872	8.237	-0.11	0.49
8	4.102	-8.192	138.118	-2.37	0.28
9	4.276	-9.063	167.559	-2.64	0.21
10	5.149	-9.063	167.559	-2.64	0.21
11	5.323	-8.192	138.118	-2.37	0.28
12	6.196	-0.872	8.237	-0.11	0.49

REACTION DISTRIBUTION

Component	ID	Moment Mu (k-ft)	Axial Load Pu (k)	Shear Vu (k)	Moment Factor
Pole	14"Ø x 0.375" (Round)	20.7	2.45	4.63	1.000
Bolt Group	Original (6) 1"Ø	20.7	-	4.63	1.000
Stiffeners	(12) 10.25"H x 6"W x 0.375"T	15.9	-	3.57	0.771
TOTALS		20.66	2.45	4.63	

COMPONENT PROPERTIES

Component	ID	Gross Area (in ²)	Net Area (in ²)	Individual Inertia (in ⁴)	Moment of Inertia (in ⁴)	Threads/in
Pole	14"Ø x 0.375" (Round)	16.0514	-	-	373.24	-
Bolt Group	Original (6) 1"Ø	0.7854	0.6057	0.0292	215.09	8.0
Stiffeners	(12) 10.25"H x 6"W x 0.375"T	2.2500	2.0250	27.0000	1255.66	-

EXTERNAL UPPER FLANGE PLATE BEND LINE ANALYSIS @ 160 FT

POLE PROPERTIES

Flat-to-Flat Diameter:	14.12	in
Point-to-Point Diameter:	14.12	in
Flat Width:	0.123	in
Flat Radians:	0.017	rad

PLATE PROPERTIES

Neutral Axis:	0	°
Bend Line Lower Limit:	0.749	rad
Bend Line Upper Limit:	2.393	rad

Bend Line	Chord Length (in)	Additional Length (in)	Section Modulus (in ³)	Applied Moment Mu (k-in)	Moment Capacity φMn (k-in)	Ratio
Flat	20.110	14.02	1.200	32.9	38.9	0.846
Corner	20.110	14.02	1.200	32.9	38.9	0.846
Circumferential	26.563	25.50	1.830	53.3	59.3	0.898

ASSET: 302524, Beacon Falls
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
ENG NO: 13753210

PLASTIC FLANGE BOLT ANALYSIS

Class	Group Quantity	Bolt Diameter (in)	Applied Axial Load Pu (k)	Applied Shear Load Vu (k)	Compressive Capacity ϕP_n (k)	Ratio
Original	6	1	7.4	1.3	45.4	0.163

UPPER FLANGE PLATE STIFFENER ANALYSIS

Quantity:	12	
Height:	10.25	in
Width:	6	in
Effective Width:	6.000	in
Thickness:	0.375	in
Notch:	0	in
Grade:	A36	
Yield Strength:	36	ksi
Tensile Strength:	58	ksi
Horizontal Weld Type:	Fillet	
Horizontal Weld Fillet Size:	0.125	in
Horizontal Weld Bevel Size:		in
Vertical Weld Fillet Size:	0.125	in
Weld Strength:	70	ksi
Electrode Coefficient:	1.000	

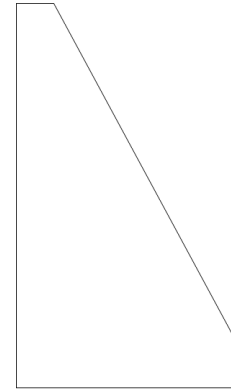


PLATE COMPRESSION

Radius of Gyration:	0.108	in ³
kl/r:	56.81	
4.71 √(E/Fy):	133.68	
Buckling Stress, Fe:	88.68	ksi
Crit. Buckling Stress, Fcr:	77.77	ksi
Applied Compression, Pu:	2.95	k
Compressive Capacity, φPn:	157.49	k
Pu/φPn:	0.009	

PLATE TENSION

Gross Cross Section:	2.2500	in ²
Net Cross Section:	2.0250	in ²
Applied Tension, Tu:	2.64	k
Tensile Capacity, φTn:	72.90	k
Tu/φTn:	0.018	

VERTICAL WELD TO POLE

Vertical Eccentricity Ratio, a=e _x /l:	0.195	
Spacing Ratio, k:	0.037	
Weld Coefficient, C:	3.670	
Applied Compression, Pu:	2.95	k
Compressive Capacity, φPn:	56.43	k
Horizontal Eccentricity Ratio, a=e _y /l:	0.333	
Weld Coefficient, C:	2.940	
Applied Shear, Vu:	0.21	k
Shear Capacity, φVn:	45.20	k
Pu/φPn + Vu/φVn:	0.057	

HORIZONTAL WELD TO PLATE

Horizontal Eccentricity Ratio, a=e _x /l:	0.167	
Spacing Ratio, k:	0.063	
Weld Coefficient, C:	3.900	
Effective Fillet Size:	0.125	in
Applied Compression, Pu:	2.95	k
Compressive Capacity, φPn:	35.10	k
Vertical Eccentricity Ratio, a=e _y /l:	0.285	
Weld Coefficient, C:	3.310	
Applied Shear, Vu:	0.21	k
Shear Capacity, φVn:	29.79	k
Pu/φPn + Vu/φVn:	0.091	

About 20,100,000 results (0.36 seconds)

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Tracking number 9505510391962179635963 **American Tower Corporation - Tower Operator/Owner**

Delivered

June 30, 10:39AM
Woburn, MA

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Tracking number 9505510391962179635932

Delivered

June 30, 10:18AM
Beacon Falls, CT

Keith Rosenfeld – Beacon Falls Town Planner

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Call 1-800-275-8777

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Track your package

Data provided by USPS

Tracking number 9505510391962179635949

Delivered

June 30, 10:18AM
Beacon Falls, CT

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Call 1-800-275-8777

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Data provided by USPS

Tracking number 9505510391962179635956

Delivered ✔ **The Weed Family LLC - Property Owner**
June 30, 01:30PM
Southbury, CT

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June 27, 2022

Jacqueline Hall
Project Manager, Site Development
American Tower Corporation
10 Presidential Way
Woburn, MA 01801

Re: Exempt Modification Application – AT&T Site 13753210
AT&T Mobility Telecommunications Facility @ 664 Rimmon Hill Road, Seymour, CT 06403

Dear Ms. Hall:

New Cingular Wireless, PCS, LLC (dba AT&T) currently maintains antennas on a wireless telecommunications facility on an existing American Tower Corporation (ATC) telecommunications tower at the above referenced address. AT&T desires to modify its existing equipment as described in the attached Construction and Antenna Mount Modification Drawings:

- Remove nine (9) antennas, three (3) RRHs, three (3) TMAs, and six (6) coax cables;
- Install mount modifications, twelve (12) antennas, seven (7) RRHs, one (1) squid, one (1) fiber trunk, three (3) DC trunks, three (3) Y cables and two (2) conduits.

This letter is intended to serve as the required notice to the tower owner. As required by Regulations of Connecticut State Agencies (“RCSA”) 16-50j-73 the Connecticut Siting Council (“CSC”) has been notified of this proposal and will review this application. Please accept this letter as notification pursuant to RCSA 16-50j-73.

The enclosed letter and attachments to the CSC fully describe AT&T’s proposal for the site. However, if you have any questions or require any additional information concerning our plans or the CSC procedures, please contact me at 443-677-0144 or contact Melanie Bachmann, Acting Executive Director of the CSC at 860-972-2935.

Respectfully Submitted,

A handwritten signature in blue ink, appearing to read 'Jack Andrews', is written over the printed name.

Jack Andrews
Zoning Manager, Centerline Communications
10130 Donleigh Drive
Columbia, MD 21046
443-677-0144

Enclosures



June 27, 2022

The Honorable Gerard Smith
Beacon Falls Town Hall
10 Maple Avenue
Beacon Falls, CT 06403

Re: Exempt Modification Application – AT&T Site 13753210
AT&T Mobility Telecommunications Facility @ 664 Rimmon Hill Road, Seymour, CT 06403

Dear First Selectman Smith:

New Cingular Wireless, PCS, LLC (dba AT&T) currently maintains antennas on a wireless telecommunications facility on an existing American Tower Corporation (ATC) telecommunications tower at the above referenced address. AT&T desires to modify its existing equipment as described in the attached Construction and Antenna Mount Modification Drawings:

- Remove nine (9) antennas, three (3) RRHs, three (3) TMAs, and six (6) coax cables;
- Install mount modifications, twelve (12) antennas, seven (7) RRHs, one (1) squid, one (1) fiber trunk, three (3) DC trunks, three (3) Y cables and two (2) conduits.

This letter is intended to serve as the required notice to the municipality's chief elected official. As required by Regulations of Connecticut State Agencies ("RCSA") 16-50j-73 the Connecticut Siting Council ("CSC") has been notified of this proposal and will review this application. Please accept this letter as notification pursuant to RSCA 16-50j-73.

The enclosed letter and attachments to the CSC fully describe the proposal for the site. However, if you have any questions or require any additional information concerning our plans or the CSC procedures, please contact me at 443-677-0144 or contact Melanie Bachmann, Executive Director of the CSC at 860-972-2935.

Respectfully Submitted,

A handwritten signature in blue ink, appearing to read 'Jack Andrews', is written over a faint, circular stamp or watermark.

Jack Andrews
Zoning Manager, Centerline Communications
10130 Donleigh Drive
Columbia, MD 21046



June 27, 2022

Keith Rosenfeld, Town Planner
Beacon Falls Town Hall
10 Maple Avenue
Beacon Falls, CT 06403

Re: Exempt Modification Application – AT&T Site 13753210
AT&T Mobility Telecommunications Facility @ 664 Rimmon Hill Road, Seymour, CT 06403

Dear Mr. Rosenfeld:

New Cingular Wireless, PCS, LLC (dba AT&T) currently maintains antennas on a wireless telecommunications facility on an existing American Tower Corporation (ATC) telecommunications tower at the above referenced address. AT&T desires to modify its existing equipment as described in the attached Construction and Antenna Mount Modification Drawings:

- Remove nine (9) antennas, three (3) RRHs, three (3) TMAs, and six (6) coax cables;
- Install mount modifications, twelve (12) antennas, seven (7) RRHs, one (1) squid, one (1) fiber trunk, three (3) DC trunks, three (3) Y cables and two (2) conduits.

This letter is intended to serve as the required notice to the municipal planning agency. As required by Regulations of Connecticut State Agencies (“RCSA”) 16-50j-73 the Connecticut Siting Council (“CSC”) has been notified of this proposal and will review this application. Please accept this letter as notification pursuant to RSCA 16-50j-73.

The enclosed letter and attachments to the CSC fully describe the proposal for the site. However, if you have any questions or require any additional information concerning our plans or the CSC procedures, please contact me at 443-677-0144 or contact Melanie Bachmann, Executive Director of the CSC at 860-972-2935.

Respectfully Submitted,

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Jack Andrews
Zoning Manager, Centerline Communications
10130 Donleigh Drive
Columbia, MD 21046



June 27, 2022

Weed Family LLC
54 Dublin Hill Road
Southbury, CT 06488

Re: Exempt Modification Application – AT&T Site 13753210
AT&T Mobility Telecommunications Facility @ 664 Rimmon Hill Road, Seymour, CT 06403

Dear Property Owner:

New Cingular Wireless, PCS, LLC (dba AT&T) currently maintains antennas on a wireless telecommunications facility on an existing American Tower Corporation (ATC) telecommunications tower at the above referenced address. AT&T desires to modify its existing equipment as described in the attached Construction and Antenna Mount Modification Drawings:

- Remove nine (9) antennas, three (3) RRHs, three (3) TMAs, and six (6) coax cables;
- Install mount modifications, twelve (12) antennas, seven (7) RRHs, one (1) squid, one (1) fiber trunk, three (3) DC trunks, three (3) Y cables and two (2) conduits.

This letter is intended to serve as the required notice to the property owner. As required by Regulations of Connecticut State Agencies (“RCSA”) 16-50j-73 the Connecticut Siting Council (“CSC”) has been notified of this proposal and will review this application. Please accept this letter as notification pursuant to RCSA 16-50j-73.

The enclosed letter and attachments to the CSC fully describe the proposal for the site. However, if you have any questions or require any additional information concerning our plans or the CSC procedures, please contact me at 443-677-0144 or contact Melanie Bachmann, Executive Director of the CSC at 860-972-2935.

Respectfully Submitted,

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Jack Andrews
Zoning Manager, Centerline Communications
10130 Donleigh Drive
Columbia, MD 21046
443-677-0144