



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 13753208
AT&T Mobility Telecommunications Facility @ 77 Town Farm Road, Enfield, CT 06082

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 Drawings:

Remove nine (9) antennas, six (6) RRHs, six (6) TMAs, twelve diplexers and five (5) coax cables;

Install mount modifications, twelve (12) antennas, six (6) RRHs, one (1) squid, two (2) DC cables, six (6) Y cables and one (1) two inch conduit.

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 Town of Enfield as Property Owner; Ellen Zoppo-Sassu, the Enfield Town Manager, and Ben Winter, Enfield Assistant Town Planner. The tower was originally approved by the Council in Docket Number 51.

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 77 Town Farm Road, Enfield, CT 06082. 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 Drawings
 Exhibit 4 – Structural Analysis Report
 Exhibit 5 – Antenna Mount Analysis Report
 Exhibit 6 – EME Study Report
 Exhibit 7 – Four (4) Notice Confirmations

cc: American Tower Corporation - Tower Operator/Owner
 The Town of Enfield - Property Owner
 Ellen Zoppo-Sassu - Enfield Town Manager
 Ben Winter - Enfield Assistant Town Planner



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



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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, Brrandford, 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



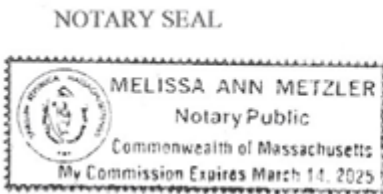
**LETTER OF AUTHORIZATION
CENTERLINE COMMUNICATIONS LLC/ AT&T MOBILITY**

NOTARY BLOCK

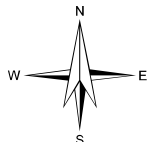
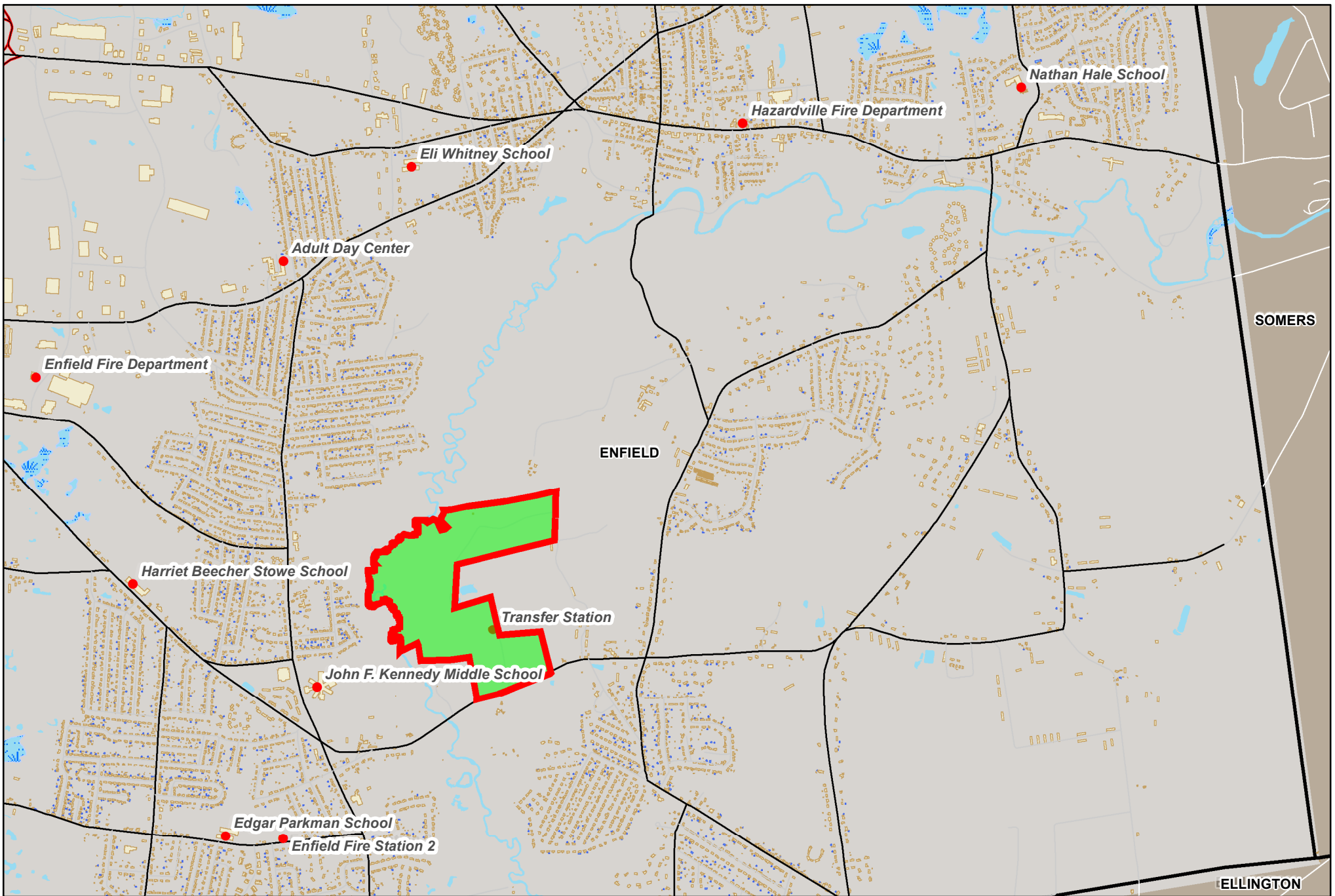
COMMONWEALTH OF MASSACHUSETTS
County of Middlesex

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



77 Town Farm Rd

0 550 1,100 2,200 3,300 4,400 Feet

1 inch = 2,429 feet



The Town of Enfield, CT shall assume no liability for any errors, omissions, or inaccuracies in the information provided regardless of how caused or any decision made or action taken or not taken by reader in reliance upon any information or data furnished hereunder.



Radio Frequency Exposure Analysis Report

June 17, 2022

American Tower on behalf of AT&T

AT&T Site Name: Enfd - Enfield

Site Number: CTL01021

FA#: 10034985

USID: 59340

Site Address: TOWN FARM ROAD, ENFIELD, CT 06082

Site Compliance Summary

AT&T Compliance Status:	Compliant
Cumulative Calculated Power Density (Ground Level):	12.84287 $\mu\text{W}/\text{cm}^2$
Cumulative General Population % MPE (Ground Level):	1.2844100000000001%



June 17, 2022

Centerline
Attn: John Luca, Associate Project Manager
750 W Center St, Suite 301
West Bridgewater, MA 02379

RF Exposure Analysis for Site: **Enfd - Enfield**

Centerline Communications, LLC ("Centerline") was contracted to analyze the proposed AT&T facility at **TOWN FARM ROAD, ENFIELD, CT 06082** 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.

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 338' west 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	151.00	4.00	40.00	3155.88	0.00000	466.67	0.00000
AT&T A 1	CCI TPA65R-BU8D	1900	15.15	151.00	4.00	40.00	5237.45	0.00000	1000.00	0.00000
AT&T A 1	CCI TPA65R-BU8D	2100	15.85	151.00	4.00	40.00	6153.47	0.00000	1000.00	0.00000
AT&T A 2	Ericsson AIR6449	3700	23.45	153.00	1.00	108.40	23989.95	0.00001	1000.00	0.00000
AT&T A 3	Ericsson AIR6419	3450	23.45	149.00	1.00	108.40	23989.95	0.00001	1000.00	0.00000
AT&T A 4	CCI DMP65R-BU8D	700	12.25	151.00	4.00	40.00	2686.09	0.00000	466.67	0.00000
AT&T A 4	CCI DMP65R-BU8D	850	12.55	151.00	4.00	40.00	2878.19	0.00000	566.67	0.00000
AT&T A 4	CCI DMP65R-BU8D	2300	14.95	151.00	4.00	25.00	3126.08	0.00000	1000.00	0.00000
AT&T B 5	CCI TPA65R-BU8D	700	12.95	151.00	4.00	40.00	3155.88	0.00000	466.67	0.00000
AT&T B 5	CCI TPA65R-BU8D	1900	15.15	151.00	4.00	40.00	5237.45	0.00000	1000.00	0.00000
AT&T B 5	CCI TPA65R-BU8D	2100	15.85	151.00	4.00	40.00	6153.47	0.00000	1000.00	0.00000
AT&T B 6	Ericsson AIR6449	3700	23.45	153.00	1.00	108.40	23989.95	0.00001	1000.00	0.00000
AT&T B 7	Ericsson AIR6419	3450	23.45	149.00	1.00	108.40	23989.95	0.00001	1000.00	0.00000
AT&T B 8	CCI DMP65R-BU8D	700	12.25	151.00	4.00	40.00	2686.09	0.00000	466.67	0.00000
AT&T B 8	CCI DMP65R-BU8D	850	12.55	151.00	4.00	40.00	2878.19	0.00000	566.67	0.00000
AT&T B 8	CCI DMP65R-BU8D	2300	14.95	151.00	4.00	25.00	3126.08	0.00000	1000.00	0.00000
AT&T C 9	CCI TPA65R-BU8D	700	12.95	151.00	4.00	40.00	3155.88	0.00014	466.67	0.00003
AT&T C 9	CCI TPA65R-BU8D	1900	15.15	151.00	4.00	40.00	5237.45	0.00014	1000.00	0.00001
AT&T C 9	CCI TPA65R-BU8D	2100	15.85	151.00	4.00	40.00	6153.47	0.00018	1000.00	0.00002
AT&T C 10	Ericsson AIR6449	3700	23.45	153.00	1.00	108.40	23989.95	0.00084	1000.00	0.00008
AT&T C 11	Ericsson AIR6419	3450	23.45	149.00	1.00	108.40	23989.95	0.00072	1000.00	0.00007
AT&T C 12	CCI DMP65R-BU8D	700	12.25	151.00	4.00	40.00	2686.09	0.00022	466.67	0.00005
AT&T C 12	CCI DMP65R-BU8D	850	12.55	151.00	4.00	40.00	2878.19	0.00013	566.67	0.00002
AT&T C 12	CCI DMP65R-BU8D	2300	14.95	151.00	4.00	25.00	3126.08	0.00010	1000.00	0.00001
Unknown A 13	GENERIC PANEL 6FT	850	12.62	118.60	1.00	60.00	1096.86	0.00000	566.67	0.00000
Unknown A 14	GENERIC PANEL 6FT	850	12.62	118.60	1.00	60.00	1096.86	0.00000	566.67	0.00000
Unknown B 15	GENERIC PANEL 6FT	850	12.62	118.60	1.00	60.00	1096.86	0.00000	566.67	0.00000
Unknown B 16	GENERIC PANEL 6FT	850	12.62	118.60	1.00	60.00	1096.86	0.00000	566.67	0.00000
Unknown C 17	GENERIC PANEL 6FT	850	12.62	118.60	1.00	60.00	1096.86	0.00009	566.67	0.00002
Unknown C 18	GENERIC PANEL 6FT	850	12.62	118.60	1.00	60.00	1096.86	0.00009	566.67	0.00002
T-Mobile A 19	GENERIC PANEL 6FT	1900	15.84	105.40	2.00	60.00	4604.49	0.00000	1000.00	0.00000
T-Mobile A 19	GENERIC PANEL 6FT	2100	16.39	105.40	2.00	60.00	5226.14	0.00000	1000.00	0.00000
T-Mobile A 20	GENERIC PANEL 6FT	600	12.33	105.40	2.00	60.00	2052.02	0.00000	400.00	0.00000
T-Mobile A 20	GENERIC PANEL 6FT	700	12.33	105.40	2.00	60.00	2052.02	0.00000	466.67	0.00000
T-Mobile B 21	GENERIC PANEL 6FT	1900	15.84	105.40	2.00	60.00	4604.49	0.00000	1000.00	0.00000



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
T-Mobile B 21	GENERIC PANEL 6FT	2100	16.39	105.40	2.00	60.00	5226.14	0.00000	1000.00	0.00000
T-Mobile B 22	GENERIC PANEL 6FT	600	12.33	105.40	2.00	60.00	2052.02	0.00000	400.00	0.00000
T-Mobile B 22	GENERIC PANEL 6FT	700	12.33	105.40	2.00	60.00	2052.02	0.00000	466.67	0.00000
T-Mobile C 23	GENERIC PANEL 6FT	1900	15.84	105.40	2.00	60.00	4604.49	0.00022	1000.00	0.00002
T-Mobile C 23	GENERIC PANEL 6FT	2100	16.39	105.40	2.00	60.00	5226.14	0.00023	1000.00	0.00002
T-Mobile C 24	GENERIC PANEL 6FT	600	12.33	105.40	2.00	60.00	2052.02	0.00021	400.00	0.00005
T-Mobile C 24	GENERIC PANEL 6FT	700	12.33	105.40	2.00	60.00	2052.02	0.00021	466.67	0.00005
T-Mobile C 25	GENERIC MICROWAVE 3FT	11000	38.65	109.50	1.00	0.10	732.82	0.00000	1000.00	0.00000
Other 26	GENERIC MICROWAVE 3FT	11000	38.65	57.90	1.00	0.10	732.82	0.00000	1000.00	0.00000
							Cumulative Power Density:	12.84287 $\mu\text{W}/\text{cm}^2$	Cumulative % MPE:	1.28441%



Summary

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

Katrina Styx
RF EME Technical Writer
Centerline Communications, LLC

A handwritten signature in black ink, appearing to read "Katrina Styx", with a stylized flourish at the end.



AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure : 150 ft Monopole
ATC Site Name : Enfd - Enfield,CT
ATC Site Number : 302489
Engineering Number : 13753208_C3_03
Proposed Carrier : AT&T MOBILITY
Carrier Site Name : MRCTB056379
Carrier Site Number : CTL01021
Site Location : 77 Town Farm Road
Enfield, CT 06082-5152
41.9659, -72.5527
County : Hartford
Date : February 18, 2022
Max Usage : 96%
Result : Pass

Prepared By:

Adam McLaine
Engineer Intern

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 150 ft Monopole to reflect the change in loading by AT&T MOBILITY.

Supporting Documents

Tower Drawings	Smith Cullum Acquisition #CT-0025, dated May 14, 2001 ITT Meyer Specification #AT-8935, Type B, dated April 13, 1984
Foundation Drawing	Southern New England Telephone, dated June 6, 1985
Geotechnical Report	MB & A Project #011107, dated June 16, 2001
Modifications	ATC Job #40071639, dated December 6, 2007 ATC Job #48982632, dated April 25, 2012 ATC Job #613768312, dated February 2, 2016
Site Specific Study	ICE Report for Site 302489, dated April 24, 2019

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:	116 mph (3-second gust)
Basic Wind Speed w/ Ice:	77 mph (3-second gust) w/ 1.65" radial ice concurrent
Code:	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	C
Risk Category:	II
Topographic Factor Procedure:	Method 3
Topographic Category:	1
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	$S_s = 0.17$, $S_i = 0.06$
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
157.1	1	Decibel DB809KE-SY	Stand-Off	(1) 1 5/8" Coax	SPOK HOLDINGS, INC.
151.0	3	Ericsson RRUS 32 B30	Triangular Platform with Handrails	(1) 2" conduit	AT&T MOBILITY
	2	Raycap DC6-48-60-18-8F ("Squid")			
140.0	3	RFS APXVAALL24 43-U-NA20	Triangular Low Profile Platform	(6) 1 5/8" Coax (3) 1 5/8" Hybriflex	T-MOBILE
	3	Commscope SDX1926Q-43			
	3	Ericsson Radio 4449 B71 B85A			
	3	RFS APX16DWV-16DWVS-E-A20			
	3	Ericsson Air6449 B41			
	3	Ericsson 4424 B25			
	3	Ericsson RRUS 4415 B66			
130.0	3	Commscope NHHSS-65C-R2B	Triangular Low Profile Platform	(6) 1 5/8" Coax (2) 1 5/8" Hybriflex	VERIZON WIRELESS
	3	Amphenol Antel BXA-80080-6CF-EDIN-X			
	3	Samsung MT6407-77A			
	1	Raycap RCMD-6627-PF-48			
	3	Samsung B2/B66A RRH-BR049			
	3	Samsung Outdoor CBR5 20W RRH			
	3	Samsung B5/B13 RRH-BR04C			
	3	Commscope NHH-65B-R2B			
118.6	3	Generic 76" x 6" Panel	Flush	-	METRO PCS INC
111.0	6	Alcatel-Lucent RRH2x50-08	Side Arm	(4) 1 1/4" Hybriflex Cable (4) 1/2" Coax (2) 2" conduit	CLEARWIRE CORPORATION
	3	Nokia FZHN Flexi RRH 8TR 2600 9*20W			
	3	Alcatel-Lucent 1900MHz RRH (65MHz) w/ solar shield			
	2	DragonWave A-ANT-11G-2-C			
	3	Commscope NNVV-65B-R4			
	2	DragonWave Horizon Compact			
	3	RFS APXVTM14-ALU-I20			
108.0	1	Generic 24" x 24" Junction Box			
40.0	1	Generic Blank Exhibit	Flush	(1) 0.28" (7mm) RG-6	SPOK HOLDINGS, INC.

Equipment to be Removed

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
154.0	3	Powerwave Allgon 7770.00	-	(11) 1 5/8" Coax (2) 0.39" (10mm) Fiber Trunk (4) 0.78" (19.7mm) 8 AWG 6 (1) 3" conduit	AT&T MOBILITY
151.0	3	Powerwave Allgon LGP21401			
	3	Ericsson RRUS A2 B2			
	3	CCI TPA-65R-LCUUUU-H8			
	3	Ericsson RRUS-11 (19.7")			
	3	Ericsson RRUS-12 B2			
	3	Ericsson Radio 8843			
	3	CCI OPA-65R-LCUU-H8			
	3	Kaelus DBC0061F1V51-2			

Equipment to be Removed

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
	3	Ericsson RRUS 11 (Band 12) (55 lb)			

Proposed Equipment

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
153.0	3	Ericsson Air 6449 B77D	Triangular Platform with Handrails	(3) 0.40" (10.3mm) Fiber	AT&T MOBILITY
151.0	3	Ericsson RRUS 8843 B2, B66A		(2) 0.82" (20.8mm) 8 AWG 6	
	3	Ericsson RRUS 4449 B5, B12		(2) 0.92" (23.4mm) Cable	
	3	Ericsson RRUS 4478 B14		(2) 0.95" (24.2mm) Cable	
	1	Raycap DC9-48-60-24-8C-EV		(6) 1 5/8" Coax	
	3	CCI DMP65R-BU8D		(3) 2" conduit	
	3	CCI TPA65R-BU8D (87.5 lbs)			
149.0	3	Ericsson AIR 6419 B77G			

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	73%	Pass
Shaft	96%	Pass
Reinforcement	93%	Pass
Base Plate	27%	Pass
Flange Plate	66%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	3490.7	84%
Shear (Kips)	30.4	82%
Axial (Kips)	72.3	43%

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
153.0	Ericsson Air 6449 B77D	AT&T MOBILITY	2.416	2.000
151.0	Ericsson RRUS 4449 B5, B12			
	Ericsson RRUS 4478 B14			
	Ericsson RRUS 8843 B2, B66A			
	Raycap DC9-48-60-24-8C-EV			
	CCI TPA65R-BU8D (87.5 lbs)			
	CCI DMP65R-BU8D			
149.0	Ericsson AIR 6419 B77G	CLEARWIRE CORPORATION	2.381	1.990
111.0	DragonWave A-ANT-11G-2-C		1.249	1.410

*Deflection 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.

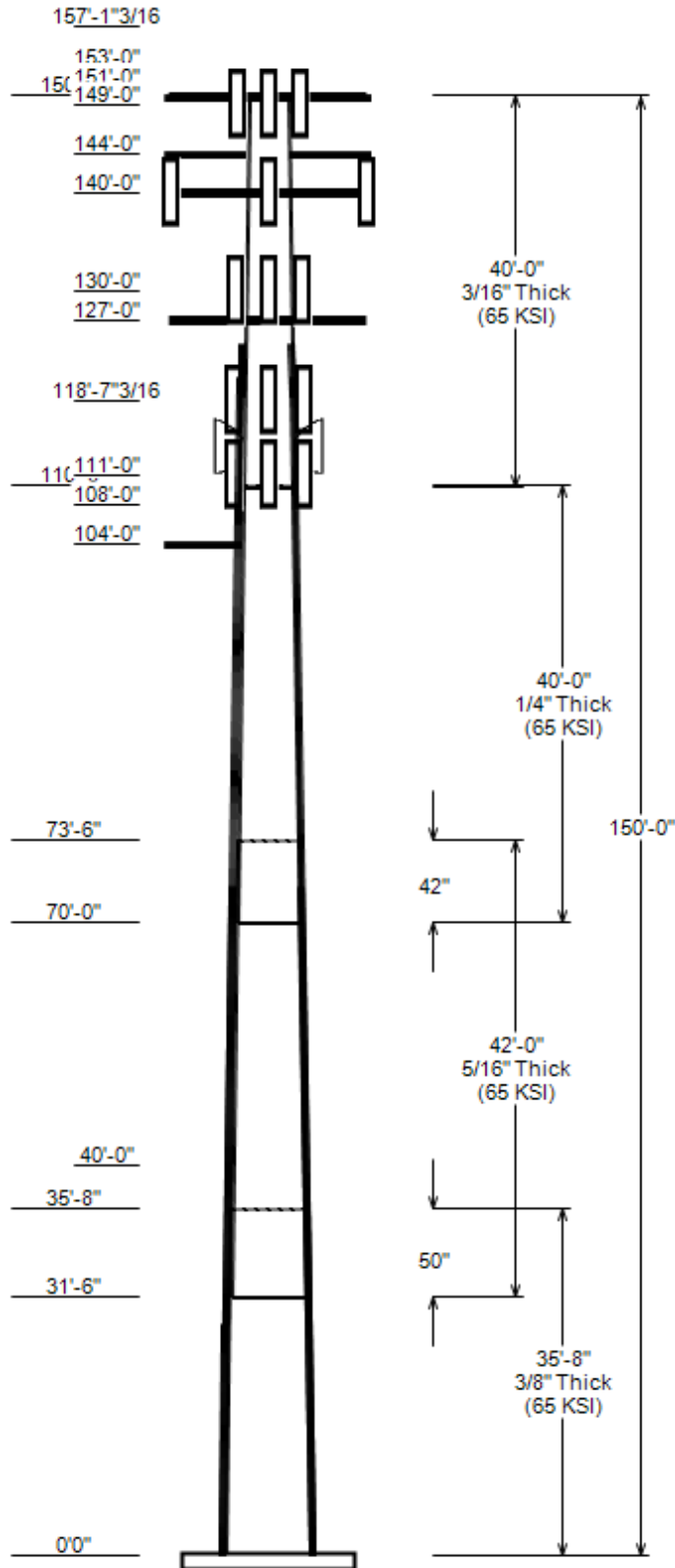
All assets of American Tower Corporation, its affiliates, and subsidiaries (collectively “American Tower”) are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with 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 : 302489, Enfd - Enfield
 Client : AT&T MOBILITY
 Code : ANSI/TIA-222-H

Height : 150 ft
 Base Width : 37.38
 Shape : 12 Sides



SITE PARAMETERS

Nominal Wind: 116 mph wind with no ice **Topo Category:** 1
Ice Wind: 77 mph wind with 1.65" rad **Topo Method:** Method 3
Base Elev (ft): 0.00 **Taper :** 0.15700 (in/ft) **Topo Feature:**
Structure Class: II **Exposure :** C **S_s :** 0.174 **S₁ :** 0.055

SECTION PROPERTIES

Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Joint Type	Overlap Length (in)	Shape	Steel Grade (ksi)
		Top	Bottom					
1	35.667	31.79	37.38	0.375		0.000	12 Sides	65
2	42.000	26.49	33.07	0.312	Slip Joint	50.000	12 Sides	65
3	40.000	21.27	27.54	0.250	Slip Joint	42.000	12 Sides	65
4	40.000	15.00	21.27	0.188	Butt Joint	0.000	12 Sides	65

DISCRETE APPURTENANCE

Attach Elev (ft)	Force Elev (ft)	Qty	Description
157.1	157.1	1	Decibel DB809KE-SY
153.0	153.0	3	Ericsson Air 6449 B77D
151.0	151.0	2	Raycap DC6-48-60-18-8F ("Squid
151.0	151.0	3	Ericsson RRUS 8843 B2, B66A
151.0	151.0	3	Ericsson RRUS 4449 B5, B12
151.0	151.0	3	Ericsson RRUS 4478 B14
151.0	151.0	3	Ericsson RRUS 32 B30
151.0	151.0	1	Raycap DC9-48-60-24-8C-EV
151.0	151.0	3	CCI DMP65R-BU8D
151.0	151.0	3	CCI TPA65R-BU8D (87.5 lbs)
150.0	150.0	3	Round Side Arm
150.0	150.0	1	Platform w/ Handrails
149.0	149.0	3	Ericsson AIR 6419 B77G
144.0	144.0	2	Stand-Off
140.0	140.0	3	Commscope SDX1926Q-43
140.0	140.0	3	Ericsson Radio 4449 B71 B85A
140.0	140.0	3	Ericsson RRUS 4415 B66
140.0	140.0	3	Ericsson 4424 B25
140.0	140.0	3	Ericsson Air6449 B41
140.0	140.0	3	RFS APX16DWV-16DWVS-E-A20
140.0	140.0	3	RFS APXVAALL24 43-U-NA20
140.0	140.0	1	Platform w/ Handrails
130.0	130.0	3	Samsung Outdoor CBRS 20W RRH
130.0	130.0	3	Samsung B2/B66A RRH-BR049
130.0	130.0	3	Samsung B5/B13 RRH-BR04C
130.0	130.0	1	Raycap RCMDC-6627-PF-48
130.0	130.0	3	Samsung MT6407-77A
130.0	130.0	3	Amphenol Antel BXA-80080-6CF-E
130.0	130.0	3	Commscope NHH-65B-R2B
130.0	130.0	3	Commscope NHHSS-65C-R2B
127.0	127.0	1	Round Low Profile Platform
118.6	118.6	3	Generic 76" x 6" Panel
111.0	112.0	2	DragonWave Horizon Compact
111.0	111.0	6	Alcatel-Lucent RRH2x50-08
111.0	111.0	3	Nokia FZHN Flexi RRH 8TR 2600
111.0	111.0	3	Alcatel-Lucent 1900MHz RRH (65
111.0	112.0	2	DragonWave A-ANT-11G-2-C
111.0	111.0	3	RFS APXVTM14-ALU-I20
111.0	111.0	3	Commscope NNVV-65B-R4
108.0	112.0	1	Generic 24" x 24" Junction Box
104.0	104.0	1	Side Arms
40.0	40.0	1	Generic Blank Exhibit

JOB INFORMATION

Asset : 302489, Enfd - Enfield
 Client : AT&T MOBILITY
 Code : ANSI/TIA-222-H

Height : 150 ft
 Base Width : 37.38
 Shape : 12 Sides

LINEAR APPURTENANCE

Elev From (ft)	Elev To (ft)	Description	Exp To Wind
0.0	157.0	1 5/8" Coax	No
10.0	151.0	2" conduit	No
10.0	151.0	2" conduit	No
0.0	151.0	1 5/8" Coax	No
0.0	151.0	0.95" (24.2mm) Cable	No
0.0	151.0	0.92" (23.4mm) Cable	No
0.0	151.0	0.82" (20.8mm) 8 AWG 6	No
0.0	151.0	0.40" (10.3mm) Fiber	No
140.0	150.0	1 5/8" Coax	Yes
10.0	150.0	1 5/8" Coax	No
10.0	140.0	1 5/8" Coax	No
0.0	140.0	1 5/8" Hybriflex	No
10.0	130.0	1 5/8" Hybriflex	Yes
10.0	130.0	1 5/8" Coax	Yes
114.0	129.0	#20 Dywidag bars	Yes
114.0	129.0	#20 Dywidag bars	Yes
114.0	129.0	#20 Dywidag bars	Yes
114.0	129.0	#20 Dywidag bars	Yes
0.0	125.0	#20 Dywidag bars	Yes
0.0	125.0	#20 Dywidag bars	Yes
0.0	125.0	#20 Dywidag bars	Yes
0.0	125.0	#20 Dywidag bars	Yes
10.0	111.0	1 1/4" Hybriflex Cable	Yes
0.0	111.0	1/2" Coax	No
10.0	108.0	2" conduit	Yes
31.0	76.7	#20 Dywidag bars	Yes
31.0	76.7	#20 Dywidag bars	Yes
31.0	76.7	#20 Dywidag bars	Yes
31.0	76.7	#20 Dywidag bars	Yes
0.0	58.0	0.28" (7mm) RG-6	No
0.0	31.0	#20 Dywidag bars	Yes
0.0	31.0	#20 Dywidag bars	Yes
0.0	31.0	#20 Dywidag bars	Yes
0.0	31.0	#20 Dywidag bars	Yes

LOAD CASES

1.2D + 1.0W Normal	116 mph wind with no ice
0.9D + 1.0W Normal	116 mph wind with no ice
1.2D + 1.0Di + 1.0Wi Nor	77 mph wind with 1.65" 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	3490.74	30.41	72.33
0.9D + 1.0W Normal	3425.33	30.37	54.23
1.2D + 1.0Di + 1.0Wi Normal	3018.20	27.98	108.69
1.2D + 1.0Ev + 1.0Eh Normal	227.94	1.82	71.95
0.9D - 1.0Ev + 1.0Eh Normal	222.83	1.82	50.19
1.0D + 1.0W Service Normal	826.87	7.27	60.32

DISH DEFLECTIONS

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W Service Normal	111.00	14.985	1.409

ASSET: 302489, Enfd - Enfield
CUSTOMER: AT&T MOBILITY

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

ANALYSIS PARAMETERS

Location:	Hartford County,CT	Height:	150 ft
Type and Shape:	Taper, 12 Sides	Base Diameter:	37.38 in
Manufacturer:	ITT Meyer	Top Diameter:	15.00 in
K_d (non-service):	0.95	Taper:	0.1570 in/ft
K_e:	0.99	Rotation:	0.000°

ICE & WIND PARAMETERS

Exposure Category:	C	Design Wind Speed w/o Ice:	116 mph
Risk Category:	II	Design Wind Speed w/Ice:	77 mph
Topo Factor Procedure:	Method 3	Operational Wind Speed:	60 mph
Topographic Category:	1	Design Ice Thickness:	1.65 in
Crest Height:	0 ft	HMSL:	159.00 ft

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method		
Site Class:	D - Stiff Soil	Period Based on Rayleigh Method (sec):	2.89
T_L (sec):	6	P:	1
S_s:	0.174	S₁:	0.055
F_a:	1.600	F_v:	2.400
S_{ds}:	0.186	S_{d1}:	0.088
		C_s:	0.030
		C_s Max:	0.030
		C_s Min:	0.030

LOAD CASES

1.2D + 1.0W Normal	116 mph wind with no ice
0.9D + 1.0W Normal	116 mph wind with no ice
1.2D + 1.0Di + 1.0Wi Normal	77 mph wind with 1.65" 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: 302489, Enfd - Enfield
CUSTOMER: AT&T MOBILITY

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

SHAFT SECTION PROPERTIES

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint len (in)	Weight (lb)	Bottom						Top						Taper (in/ft)
							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	
1-12	35.67	0.3750	65		0.00	5,014	37.38	0.003	44.68	7,810.1	24.03	99.68	31.79	35.67	37.93	4,778.9	20.04	84.78	0.1567
2-12	42.00	0.3125	65	Slip	50.00	4,237	33.07	31.500	32.96	4,514.2	25.68	105.82	26.49	73.50	26.34	2,303.3	20.03	84.76	0.1567
3-12	40.00	0.2500	65	Slip	42.00	2,646	27.54	70.000	21.97	2,087.4	26.83	110.14	21.27	110.00	16.92	954.0	20.12	85.07	0.1567
								110.00								250.5			
4-12	40.00	0.1875	65	Butt	0.00	1,475	21.27	0	12.73	721.9	27.71	113.43	15.00	150.00	8.94		18.76	80.00	0.1567

Shaft Weight 13,372

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
157.10	Decibel DB809KE-SY	1	1.00	0.000	26.00	3.400	0.90	120.56	7.879	0.90
153.00	Ericsson Air 6449 B77D	3	0.75	0.000	81.60	4.028	0.65	194.91	5.543	0.65
151.00	Raycap DC9-48-60-24-8C-EV	1	0.75	0.000	16.00	4.788	1.00	158.25	6.409	1.00
151.00	Ericsson RRUS 32 B30	3	0.75	0.000	60.00	2.743	0.50	141.06	4.032	0.50
151.00	CCI DMP65R-BU8D	3	0.75	0.000	95.70	17.871	0.63	470.21	21.932	0.63
151.00	CCI TPA65R-BU8D (87.5 lbs)	3	0.75	0.000	87.50	18.089	0.63	467.40	22.158	0.63
151.00	Ericsson RRUS 4478 B14	3	0.75	0.000	59.40	2.021	0.67	127.02	3.060	0.67
151.00	Raycap DC6-48-60-18-8F ("Squid	2	0.75	0.000	31.80	1.470	0.67	99.78	2.240	0.67
151.00	Ericsson RRUS 8843 B2, B66A	3	0.75	0.000	72.00	1.639	0.50	139.54	2.570	0.50
151.00	Ericsson RRUS 4449 B5, B12	3	0.75	0.000	71.00	1.969	0.50	142.02	2.997	0.50
150.00	Round Side Arm	3	0.75	0.000	150.00	5.200	0.67	230.60	8.194	0.67
150.00	Platform w/ Handrails	1	1.00	0.000	2000.00	25.000	1.00	3565.98	38.626	1.00
149.00	Ericsson AIR 6419 B77G	3	0.75	0.000	66.10	3.797	0.65	172.83	5.246	0.65
144.00	Stand-Off	2	0.90	0.000	75.00	2.500	0.90	115.09	3.569	0.90
140.00	Ericsson Radio 4449 B71 B85A	3	0.80	0.000	75.00	1.650	0.50	140.71	2.578	0.50
140.00	Platform w/ Handrails	1	1.00	0.000	2000.00	30.000	1.00	3552.93	46.214	1.00
140.00	RFS APXVAALL24 43-U-NA20	3	0.80	0.000	122.80	20.243	0.63	548.42	24.296	0.63
140.00	RFS APX16DWV-16DWVS-E-A20	3	0.80	0.000	40.70	6.586	0.60	168.35	8.952	0.60
140.00	Ericsson Air6449 B41	3	0.80	0.000	104.00	5.682	0.63	252.92	7.416	0.63
140.00	Ericsson 4424 B25	3	0.80	0.000	86.00	2.052	0.67	165.67	3.083	0.67
140.00	Ericsson RRUS 4415 B66	3	0.80	0.000	46.00	1.650	0.50	93.31	2.578	0.50
140.00	Commscope SDX1926Q-43	3	0.80	0.000	6.20	0.242	0.50	15.60	0.627	0.50
130.00	Samsung MT6407-77A	3	0.80	0.000	81.60	4.709	0.61	192.23	6.358	0.61
130.00	Amphenol Antel BXA-80080-6CF-E	3	0.80	0.000	18.00	5.760	0.73	155.22	8.330	0.73
130.00	Commscope NHH-65B-R2B	3	0.80	0.000	43.70	8.079	0.69	232.93	11.103	0.69
130.00	Commscope NHHSS-65C-R2B	3	0.80	0.000	56.00	11.350	0.70	303.70	14.851	0.70
130.00	Raycap RCMDC-6627-PF-48	1	0.80	0.000	32.00	4.056	1.00	169.94	5.537	1.00
130.00	Samsung B2/B66A RRH-BR049	3	0.80	0.000	84.40	1.875	0.50	153.64	2.855	0.50
130.00	Samsung B5/B13 RRH-BR04C	3	0.80	0.000	70.30	1.875	0.50	132.38	2.855	0.50
130.00	Samsung Outdoor CBRS 20W RRH	3	0.80	0.000	18.60	0.857	0.50	44.65	1.537	0.50
127.00	Round Low Profile Platform	1	1.00	0.000	1350.00	20.000	1.00	1981.62	39.167	1.00
118.60	Generic 76" x 6" Panel	3	0.80	0.000	40.00	5.030	0.69	135.62	7.678	0.69
111.00	Commscope NNVV-65B-R4	3	0.80	0.000	77.40	12.271	0.64	346.03	15.269	0.64
111.00	RFS APXVTM14-ALU-I20	3	0.80	0.000	56.20	6.342	0.66	203.41	8.671	0.66
111.00	Alcatel-Lucent 1900MHz RRH (65	3	0.80	0.000	60.00	2.583	0.50	158.58	3.774	0.50
111.00	DragonWave A-ANT-11G-2-C	2	1.00	1.000	27.00	4.688	0.90	131.19	6.050	0.90
111.00	Nokia FZHN Flexi RRH 8TR 2600	3	0.80	0.000	44.10	2.020	0.50	96.42	3.019	0.50
111.00	Alcatel-Lucent RRH2x50-08	6	0.80	0.000	52.90	1.701	0.50	116.25	2.623	0.50
111.00	DragonWave Horizon Compact	2	0.80	1.000	10.60	0.721	0.50	34.64	1.329	0.50
108.00	Generic 24" x 24" Junction Box	1	0.80	4.000	20.00	4.800	0.50	142.29	6.314	0.50
104.00	Side Arms	1	1.00	0.000	560.00	8.500	1.00	1056.50	16.036	1.00
40.00	Generic Blank Exhibit	1	1.00	0.000	0.00	0.010	1.00	0.00	0.010	1.00

Totals Num Loadings: 42 107 12,233.10 29,083.11

LINEAR APPURTENANCE PROPERTIES

Load Case Azimuth (deg) : 0.00_

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Flat	Max Coax/ Row	Dist Between Rows(in)	Dist Between Cols(in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	157.00	1	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	SPOK HOLDINGS
0.00	151.00	6	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	AT&T MOBILITY

ASSET: 302489, Enfd - Enfield
 CUSTOMER: AT&T MOBILITY

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

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Flat	Max Coax/ Row	Dist Between Rows(in)	Dist Between Cols(in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	151.00	3	0.40" (10.3mm) Fiber	0.4	0.09	N	0	0	0	0	0	N	AT&T MOBILITY
10.00	151.00	3	2" conduit	2.38	3.65	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	151.00	2	0.82" (20.8mm) 8 AWG	0.82	0.62	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	151.00	2	0.92" (23.4mm) Cable	0.92	0.89	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	151.00	2	0.95" (24.2mm) Cable	0.95	0.73	N	0	0	0	0	0	N	AT&T MOBILITY
10.00	151.00	1	2" conduit	2.38	3.65	N	0	0	0	0	0	N	AT&T MOBILITY
140.00	150.00	8	1 5/8" Coax	1.98	0.82	N	4	0	0	210	0	Y	AT&T MOBILITY
0													
10.00	150.00	3	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	AT&T MOBILITY
10.00	140.00	6	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	T-MOBILE
0.00	140.00	3	1 5/8" Hybriflex	1.98	1.3	N	0	0	0	0	0	N	T-MOBILE
10.00	130.00	6	1 5/8" Coax	1.98	0.82	N	6	0	0	45	0	Y	VERIZON WIREL
10.00	130.00	2	1 5/8" Hybriflex	1.98	1.3	N	2	0	0	60	0	Y	VERIZON WIREL
114.00	129.00	1	#20 Dywidag bars	2.5	16.7	N	1	0	0	90	8.28	Y	
0													
114.00	129.00	1	#20 Dywidag bars	2.5	16.7	N	1	0	0	180	8.28	Y	
0													
114.00	129.00	1	#20 Dywidag bars	2.5	16.7	N	1	0	0	0	8.28	Y	
0													
114.00	129.00	1	#20 Dywidag bars	2.5	16.7	N	1	0	0	270	8.28	Y	
0													
0.00	125.00	1	#20 Dywidag bars	2.5	16.7	N	1	0	0	23	8.28	Y	
0.00	125.00	1	#20 Dywidag bars	2.5	16.7	N	1	0	0	203	8.28	Y	
0.00	125.00	1	#20 Dywidag bars	2.5	16.7	N	1	0	0	113	8.28	Y	
0.00	125.00	1	#20 Dywidag bars	2.5	16.7	N	1	0	0	293	8.28	Y	
0.00	111.00	4	1/2" Coax	0.63	0.15	N	0	0	0	0	0	N	CLEARWIRE COR
10.00	111.00	4	1 1/4" Hybriflex Cabl	1.54	1	N	4	0	0	70	0	Y	CLEARWIRE COR
10.00	108.00	2	2" conduit	2.38	3.65	N	2	0	0	80	0	Y	CLEARWIRE COR
31.00	76.70	1	#20 Dywidag bars	2.5	16.7	N	1	0	0	180	8.28	Y	
31.00	76.70	1	#20 Dywidag bars	2.5	16.7	N	1	0	0	270	8.28	Y	
31.00	76.70	1	#20 Dywidag bars	2.5	16.7	N	1	0	0	90	8.28	Y	
31.00	76.70	1	#20 Dywidag bars	2.5	16.7	N	1	0	0	0	8.28	Y	
0.00	58.00	1	0.28" (7mm) RG-6	0.28	0.03	N	0	0	0	0	0	N	SPOK HOLDINGS
0.00	31.00	1	#20 Dywidag bars	2.5	16.7	N	1	0	0	0	8.28	Y	
0.00	31.00	1	#20 Dywidag bars	2.5	16.7	N	1	0	0	90	8.28	Y	
0.00	31.00	1	#20 Dywidag bars	2.5	16.7	N	1	0	0	180	8.28	Y	
0.00	31.00	1	#20 Dywidag bars	2.5	16.7	N	1	0	0	270	8.28	Y	

ADDITIONAL STEEL

Intermediate Connectors										
Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Offset (in)	Description	Spacing (in)	Len (in)	Connectors	Continuation?
0.00	121.00	4	SOL #20 All Thread Bar	75	2.19	6" Angle Bracket	27.00	3.31	5/8" A36 U-Bolt	Y
0.00	23.60	4	SOL #20 All Thread Bar	80	8.28	6" T Bracket	27.00	3.31	5/8" A36 U-Bolt	Y
23.60	68.70	4	SOL #20 All Thread Bar	80	8.28	6" T Bracket	30.00	3.31	5/8" A36 U-Bolt	Y
119.13	124.50	3	SOL #20 (15 deg Offset)	80	8.28	6" T Bracket	30.00	3.31	5/8" A36 U-Bolt	N

ASSET: 302489, Enfd - Enfield
CUSTOMER: AT&T MOBILITY

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

SEGMENT PROPERTIES

(Max Len: 5.ft)

Additional Reinforcing

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in ³)	Z (in ³)	Weight (lb)	Area (in ²)	Ix (in ⁴)	Weight (lb)
0.00		0.3750	37.380	44.684	7,810.10	24.03	99.68	78.5	403.6	0.0	0.0	39.280	12,967.70	0.0
5.00		0.3750	36.596	43.737	7,324.40	23.47	97.59	79.1	386.6	0.0	752.2	39.280	12,564.70	668.0
10.00		0.3750	35.813	42.791	6,859.30	22.91	95.50	79.7	370.0	0.0	736.1	39.280	12,168.20	668.0
15.00		0.3750	35.029	41.845	6,414.30	22.35	93.41	80.3	353.7	0.0	720.0	39.280	11,778.10	668.0
20.00		0.3750	34.246	40.899	5,989.00	21.79	91.32	80.9	337.8	0.0	703.9	39.280	11,394.50	668.0
23.60	Reinf. Top Reinf Bottom	0.3750	33.682	40.218	5,694.80	21.39	89.82	81.4	326.6	0.0	496.8	39.280	11,122.30	481.0
25.00		0.3750	33.462	39.953	5,583.00	21.23	89.23	81.6	322.3	0.0	191.0	39.280	11,017.40	187.0
30.00		0.3750	32.679	39.007	5,195.70	20.67	87.14	81.9	307.1	0.0	671.7	39.280	10,646.70	668.0
31.50	Bot - Section 2	0.3750	32.444	38.723	5,083.10	20.50	86.52	81.9	302.7	0.0	198.4	39.280	10,536.70	200.4
35.00		0.3750	31.895	38.061	4,826.70	20.11	85.05	81.9	292.3	0.0	846.5	39.280	10,572.50	467.6
35.67	Top - Section 1	0.3125	32.416	32.304	4,249.60	25.12	103.73	77.3	253.3	0.0	159.6	39.280	10,523.70	89.1
40.00		0.3125	31.737	31.621	3,985.60	24.53	101.56	78	242.6	0.0	471.3	39.280	10,209.60	578.9
45.00		0.3125	30.953	30.833	3,694.90	23.86	99.05	78.7	230.6	0.0	531.3	39.280	9,853.10	668.0
50.00		0.3125	30.170	30.044	3,418.60	23.19	96.54	79.4	218.9	0.0	517.9	39.280	9,503.10	668.0
55.00		0.3125	29.386	29.256	3,156.50	22.52	94.04	80.2	207.5	0.0	504.5	39.280	9,159.60	668.0
60.00		0.3125	28.603	28.467	2,908.10	21.85	91.53	80.9	196.4	0.0	491.0	39.280	8,822.50	668.0
65.00		0.3125	27.819	27.679	2,673.10	21.17	89.02	81.6	185.6	0.0	477.6	39.280	8,491.90	668.0
68.70	Reinf. Top	0.3125	27.240	27.096	2,507.60	20.68	87.17	81.9	177.8	0.0	344.8	39.280	8,251.40	494.3
70.00	Bot - Section 3	0.3125	27.036	26.891	2,451.20	20.50	86.52	81.9	175.1	0.0	119.4	19.640	2,879.10	86.8
73.50	Top - Section 2	0.2500	26.988	21.524	1,964.00	26.25	107.95	76.1	140.6	0.0	575.9	19.640	2,870.70	233.8
75.00		0.2500	26.752	21.335	1,912.70	25.99	107.01	76.4	138.1	0.0	109.4	19.640	2,830.00	100.2
80.00		0.2500	25.969	20.704	1,748.00	25.15	103.88	77.3	130.0	0.0	357.6	19.640	2,696.60	334.0
85.00		0.2500	25.185	20.073	1,593.10	24.31	100.74	78.2	122.2	0.0	346.9	19.640	2,566.40	334.0
90.00		0.2500	24.402	19.442	1,447.60	23.47	97.61	79.1	114.6	0.0	336.2	19.640	2,439.50	334.0
95.00		0.2500	23.618	18.812	1,311.20	22.63	94.47	80	107.2	0.0	325.4	19.640	2,315.70	334.0
100.00		0.2500	22.835	18.181	1,183.70	21.79	91.34	80.9	100.1	0.0	314.7	19.640	2,195.20	334.0
104.00		0.2500	22.208	17.676	1,087.90	21.12	88.83	81.7	94.6	0.0	244.0	19.640	2,101.20	267.2
105.00		0.2500	22.051	17.550	1,064.70	20.96	88.21	81.9	93.3	0.0	59.9	19.640	2,078.00	66.8
108.00		0.2500	21.581	17.172	997.30	20.45	86.33	81.9	89.3	0.0	177.2	19.640	2,009.10	200.4
110.00	Top - Section 3	0.2500	21.268	16.919	954.00	20.12	85.07	81.9	86.7	0.0	116.0	19.640	1,963.90	133.6
110.00	Bot - Section 4	0.1875	21.268	12.727	721.90	27.71	113.43	74.5	65.6	0.0		19.640	1,963.90	
111.00		0.1875	21.111	12.633	705.90	27.49	112.59	74.7	64.6	0.0	43.1	19.640	1,941.50	66.8
115.00		0.1875	20.484	12.254	644.40	26.59	109.25	75.7	60.8	0.0	169.4	19.640	1,853.10	267.2
118.60		0.1875	19.920	11.914	592.10	25.79	106.24	76.6	57.4	0.0	148.0	19.640	1,775.30	240.5
119.13	Reinf Bottom	0.1875	19.837	11.864	584.70	25.67	105.80	76.7	56.9	0.0	21.4	19.640	1,764.00	35.4
120.00		0.1875	19.701	11.781	572.60	25.47	105.07	76.9	56.1	0.0	35.0	32.450	4,143.60	101.7
121.00	Reinf. Top	0.1875	19.544	11.687	558.90	25.25	104.24	77.2	55.2	0.0	39.9	32.450	4,102.40	116.9
124.50	Reinf. Top	0.1875	18.996	11.356	512.70	24.47	101.31	78	52.1	0.0	137.2	12.810	2,308.50	175.4
125.00		0.1875	18.917	11.308	506.40	24.35	100.89	78.2	51.7	0.0	19.3			
127.00		0.1875	18.604	11.119	481.40	23.91	99.22	78.6	50.0	0.0	76.3			
130.00		0.1875	18.134	10.835	445.40	23.24	96.71	79.4	47.5	0.0	112.1			
135.00		0.1875	17.350	10.362	389.60	22.12	92.54	80.6	43.4	0.0	180.3			
140.00		0.1875	16.567	9.889	338.60	21.00	88.36	81.8	39.5	0.0	172.3			
144.00		0.1875	15.940	9.511	301.20	20.10	85.01	81.9	36.5	0.0	132.0			
145.00		0.1875	15.783	9.416	292.30	19.88	84.18	81.9	35.8	0.0	32.2			
149.00		0.1875	15.157	9.038	258.50	18.98	80.84	81.9	32.9	0.0	125.6			
150.00		0.1875	15.000	8.943	250.50	18.76	80.00	81.9	32.3	0.0	30.6			

Totals: 13,371.9 12,941.0

ASSET: 302489, Enfd - Enfield
CUSTOMER: AT&T MOBILITY

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

Load Case: 1.2D + 1.0W Normal	116 mph wind with no ice	26 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	-72.33	-30.41	0.00	-3,490.7	0.00	3,490.74	3,157.17	784.20	2,737.77	2,376.61	0	0	0.566
5.00	-69.61	-30.21	0.00	-3,338.7	0.00	3,338.71	3,114.35	767.59	2,623.11	2,294.24	0.13	-0.23	0.549
10.00	-66.91	-29.99	0.00	-3,187.7	0.00	3,187.68	3,070.50	750.99	2,510.89	2,212.51	0.5	-0.47	0.532
15.00	-64.00	-29.75	0.00	-3,037.7	0.00	3,037.74	3,025.61	734.39	2,401.13	2,131.46	1.11	-0.7	0.515
20.00	-61.12	-29.51	0.00	-2,889.0	0.00	2,888.98	2,979.68	717.78	2,293.82	2,051.14	1.97	-0.93	0.497
23.60	-59.07	-29.35	0.00	-2,782.7	0.00	2,782.74	2,945.97	705.83	2,218.08	1,993.78	2.74	-1.1	0.485
25.00	-58.23	-29.18	0.00	-2,741.7	0.00	2,741.66	2,932.71	701.18	2,188.97	1,971.59	3.07	-1.16	0.479
30.00	-55.42	-28.92	0.00	-2,595.8	0.00	2,595.78	2,875.21	684.57	2,086.57	1,886.65	4.41	-1.39	0.463
31.50	-54.55	-28.76	0.00	-2,552.4	0.00	2,552.40	2,854.29	679.59	2,056.33	1,859.14	4.86	-1.46	0.458
35.00	-52.14	-28.56	0.00	-2,451.7	0.00	2,451.73	2,805.48	667.97	1,986.62	1,795.73	6	-1.62	0.439
35.67	-51.64	-28.41	0.00	-2,432.7	0.00	2,432.68	2,248.07	566.94	1,717.07	1,468.70	6.22	-1.65	0.489
40.00	-49.31	-28.04	0.00	-2,309.6	0.00	2,309.60	2,218.59	554.95	1,645.23	1,418.49	7.81	-1.84	0.470
45.00	-46.64	-27.61	0.00	-2,169.4	0.00	2,169.42	2,183.60	541.11	1,564.24	1,360.97	9.86	-2.07	0.447
50.00	-44.00	-27.17	0.00	-2,031.4	0.00	2,031.36	2,147.58	527.27	1,485.29	1,303.95	12.15	-2.29	0.424
55.00	-41.38	-26.70	0.00	-1,895.5	0.00	1,895.53	2,110.52	513.44	1,408.39	1,247.47	14.66	-2.5	0.401
60.00	-38.79	-26.22	0.00	-1,762.0	0.00	1,762.02	2,072.41	499.60	1,333.53	1,191.58	17.4	-2.72	0.377
65.00	-36.22	-25.76	0.00	-1,630.9	0.00	1,630.93	2,033.27	485.76	1,260.72	1,136.35	20.35	-2.92	0.354
68.70	-34.35	-25.47	0.00	-1,535.6	0.00	1,535.61	1,997.21	475.53	1,208.15	1,092.40	22.68	-3.07	0.338
68.70	-34.35	-25.47	0.00	-1,535.6	0.00	1,535.61	1,997.21	475.53	1,208.15	1,092.40	22.68	-3.07	0.663
70.00	-33.74	-25.30	0.00	-1,502.5	0.00	1,502.50	1,982.10	471.93	1,189.95	1,075.84	23.52	-3.12	0.655
73.50	-31.91	-25.05	0.00	-1,414.0	0.00	1,413.96	1,473.96	377.74	952.81	802.32	25.91	-3.39	0.732
75.00	-31.23	-24.84	0.00	-1,376.4	0.00	1,376.39	1,466.28	374.42	936.13	791.05	27	-3.51	0.717
80.00	-29.39	-24.45	0.00	-1,252.2	0.00	1,252.20	1,440.00	363.35	881.62	753.69	30.88	-3.9	0.668
85.00	-27.72	-24.05	0.00	-1,130.0	0.00	1,129.98	1,412.68	352.28	828.74	716.65	35.18	-4.29	0.618
90.00	-26.08	-23.63	0.00	-1,009.7	0.00	1,009.74	1,384.32	341.21	777.49	679.98	39.86	-4.65	0.567
95.00	-24.46	-23.20	0.00	-891.6	0.00	891.60	1,354.92	330.14	727.89	643.72	44.91	-5	0.514
100.00	-22.87	-22.77	0.00	-775.6	0.00	775.62	1,324.47	319.08	679.91	607.94	50.32	-5.33	0.460
104.00	-21.01	-22.04	0.00	-684.5	0.00	684.53	1,299.37	310.22	642.71	579.69	54.89	-5.57	0.416
105.00	-20.68	-21.88	0.00	-662.5	0.00	662.49	1,292.99	308.01	633.57	572.68	56.06	-5.63	0.405
108.00	-19.75	-21.53	0.00	-596.5	0.00	596.49	1,265.73	301.36	606.56	548.38	59.65	-5.8	0.373
110.00	-19.16	-21.37	0.00	-553.4	0.00	553.42	1,247.13	296.94	588.87	532.29	62.1	-5.91	0.352
110.00	-19.16	-21.37	0.00	-553.4	0.00	553.42	853.24	223.36	444.19	366.34	62.1	-5.91	0.424
111.00	-17.77	-18.86	0.00	-531.6	0.00	531.63	849.67	221.70	437.62	362.07	63.34	-5.96	0.407
115.00	-16.62	-18.48	0.00	-456.2	0.00	456.20	834.99	215.06	411.80	345.06	68.43	-6.18	0.356
118.60	-15.28	-17.78	0.00	-389.7	0.00	389.68	821.22	209.09	389.23	329.85	73.15	-6.35	0.310
119.13	-15.10	-17.71	0.00	-380.2	0.00	380.25	819.14	208.21	385.96	327.62	73.85	-6.37	0.303
120.00	-14.75	-17.60	0.00	-364.8	0.00	364.85	815.71	206.76	380.63	323.96	75.02	-6.41	0.149
121.00	-14.36	-17.39	0.00	-347.2	0.00	347.24	811.73	205.10	374.54	319.77	76.36	-6.44	0.142
121.00	-14.36	-17.39	0.00	-347.2	0.00	347.24	811.73	205.10	374.54	319.77	76.36	-6.44	0.222
124.50	-13.25	-17.10	0.00	-286.4	0.00	286.37	797.47	199.29	353.62	305.16	81.1	-6.5	0.186
124.50	-13.25	-17.10	0.00	-286.4	0.00	286.37	797.47	199.29	353.62	305.16	81.1	-6.5	0.962
125.00	-13.09	-17.03	0.00	-277.8	0.00	277.82	795.39	198.46	350.69	303.09	81.78	-6.52	0.940
127.00	-11.16	-15.73	0.00	-243.8	0.00	243.77	786.97	195.14	339.05	294.81	84.57	-6.81	0.848
130.00	-9.62	-12.53	0.00	-196.6	0.00	196.58	774.02	190.16	321.97	282.49	88.97	-7.2	0.713
135.00	-9.13	-12.21	0.00	-133.9	0.00	133.92	751.62	181.86	294.48	262.21	96.78	-7.73	0.527
140.00	-5.21	-7.16	0.00	-72.9	0.00	72.89	728.18	173.55	268.22	242.31	105.07	-8.11	0.310
144.00	-4.75	-6.73	0.00	-44.3	0.00	44.26	701.03	166.91	248.09	224.25	111.93	-8.3	0.206
145.00	-4.69	-6.56	0.00	-37.5	0.00	37.54	694.06	165.25	243.18	219.78	113.67	-8.34	0.179
149.00	-4.20	-6.05	0.00	-11.3	0.00	11.28	666.17	158.61	224.03	202.37	120.68	-8.44	0.064
150.00	0.00	-5.37	0.00	-5.2	0.00	5.23	659.19	156.95	219.37	198.13	122.44	-8.45	0.028

ASSET: 302489, Enfd - Enfield
CUSTOMER: AT&T MOBILITY

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

Load Case: 0.9D + 1.0W Normal	116 mph wind with no ice	26 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	-54.23	-30.37	0.00	-3,425.3	0.00	3,425.33	3,157.17	784.20	2,737.77	2,376.61	0	0	0.552
5.00	-52.16	-30.09	0.00	-3,273.5	0.00	3,273.49	3,114.35	767.59	2,623.11	2,294.24	0.12	-0.23	0.536
10.00	-50.12	-29.81	0.00	-3,123.0	0.00	3,123.04	3,070.50	750.99	2,510.89	2,212.51	0.49	-0.46	0.519
15.00	-47.90	-29.51	0.00	-2,974.0	0.00	2,974.00	3,025.61	734.39	2,401.13	2,131.46	1.09	-0.69	0.502
20.00	-45.72	-29.22	0.00	-2,826.5	0.00	2,826.46	2,979.68	717.78	2,293.82	2,051.14	1.93	-0.91	0.484
23.60	-44.18	-29.03	0.00	-2,721.3	0.00	2,721.27	2,945.97	705.83	2,218.08	1,993.78	2.68	-1.08	0.471
25.00	-43.53	-28.83	0.00	-2,680.6	0.00	2,680.62	2,932.71	701.18	2,188.97	1,971.59	3.01	-1.14	0.466
30.00	-41.41	-28.55	0.00	-2,536.5	0.00	2,536.50	2,875.21	684.57	2,086.57	1,886.65	4.32	-1.36	0.450
31.50	-40.74	-28.37	0.00	-2,493.7	0.00	2,493.67	2,854.29	679.59	2,056.33	1,859.14	4.76	-1.43	0.445
35.00	-38.93	-28.16	0.00	-2,394.4	0.00	2,394.38	2,805.48	667.97	1,986.62	1,795.73	5.87	-1.59	0.427
35.67	-38.54	-27.98	0.00	-2,375.6	0.00	2,375.61	2,248.07	566.94	1,717.07	1,468.70	6.1	-1.62	0.475
40.00	-36.78	-27.58	0.00	-2,254.4	0.00	2,254.37	2,218.59	554.95	1,645.23	1,418.49	7.65	-1.8	0.456
45.00	-34.76	-27.13	0.00	-2,116.5	0.00	2,116.47	2,183.60	541.11	1,564.24	1,360.97	9.66	-2.02	0.434
50.00	-32.76	-26.66	0.00	-1,980.8	0.00	1,980.82	2,147.58	527.27	1,485.29	1,303.95	11.89	-2.24	0.411
55.00	-30.78	-26.19	0.00	-1,847.5	0.00	1,847.50	2,110.52	513.44	1,408.39	1,247.47	14.35	-2.45	0.388
60.00	-28.82	-25.69	0.00	-1,716.6	0.00	1,716.58	2,072.41	499.60	1,333.53	1,191.58	17.03	-2.65	0.366
65.00	-26.88	-25.24	0.00	-1,588.1	0.00	1,588.11	2,033.27	485.76	1,260.72	1,136.35	19.91	-2.85	0.343
68.70	-25.47	-24.95	0.00	-1,494.7	0.00	1,494.73	1,997.21	475.53	1,208.15	1,092.40	22.18	-3	0.327
68.70	-25.47	-24.95	0.00	-1,494.7	0.00	1,494.73	1,997.21	475.53	1,208.15	1,092.40	22.18	-3	0.643
70.00	-25.01	-24.77	0.00	-1,462.3	0.00	1,462.29	1,982.10	471.93	1,189.95	1,075.84	23.01	-3.05	0.635
73.50	-23.62	-24.51	0.00	-1,375.6	0.00	1,375.61	1,473.96	377.74	952.81	802.32	25.34	-3.32	0.709
75.00	-23.09	-24.27	0.00	-1,338.8	0.00	1,338.85	1,466.28	374.42	936.13	791.05	26.4	-3.43	0.695
80.00	-21.69	-23.85	0.00	-1,217.5	0.00	1,217.48	1,440.00	363.35	881.62	753.69	30.2	-3.81	0.647
85.00	-20.41	-23.43	0.00	-1,098.2	0.00	1,098.22	1,412.68	352.28	828.74	716.65	34.39	-4.18	0.599
90.00	-19.16	-23.00	0.00	-981.1	0.00	981.06	1,384.32	341.21	777.49	679.98	38.96	-4.54	0.549
95.00	-17.92	-22.56	0.00	-866.1	0.00	866.06	1,354.92	330.14	727.89	643.72	43.89	-4.87	0.498
100.00	-16.72	-22.14	0.00	-753.3	0.00	753.27	1,324.47	319.08	679.91	607.94	49.16	-5.19	0.445
104.00	-15.32	-21.44	0.00	-664.7	0.00	664.70	1,299.37	310.22	642.71	579.69	53.61	-5.43	0.402
105.00	-15.07	-21.28	0.00	-643.3	0.00	643.27	1,292.99	308.01	633.57	572.68	54.75	-5.49	0.391
108.00	-14.37	-20.94	0.00	-579.1	0.00	579.08	1,265.73	301.36	606.56	548.38	58.25	-5.66	0.360
110.00	-13.92	-20.79	0.00	-537.2	0.00	537.20	1,247.13	296.94	588.87	532.29	60.64	-5.76	0.340
110.00	-13.92	-20.79	0.00	-537.2	0.00	537.20	853.24	223.36	444.19	366.34	60.64	-5.76	0.409
111.00	-12.93	-18.30	0.00	-516.0	0.00	516.00	849.67	221.70	437.62	362.07	61.85	-5.81	0.393
115.00	-12.06	-17.94	0.00	-442.8	0.00	442.79	834.99	215.06	411.80	345.06	66.81	-6.02	0.344
118.60	-11.07	-17.27	0.00	-378.2	0.00	378.21	821.22	209.09	389.23	329.85	71.41	-6.19	0.299
119.13	-10.93	-17.21	0.00	-369.1	0.00	369.06	819.14	208.21	385.96	327.62	72.09	-6.21	0.292
120.00	-10.67	-17.11	0.00	-354.1	0.00	354.09	815.71	206.76	380.63	323.96	73.23	-6.25	0.143
121.00	-10.37	-16.91	0.00	-337.0	0.00	336.98	811.73	205.10	374.54	319.77	74.54	-6.27	0.137
121.00	-10.37	-16.91	0.00	-337.0	0.00	336.98	811.73	205.10	374.54	319.77	74.54	-6.27	0.213
124.50	-9.55	-16.64	0.00	-277.8	0.00	277.81	797.47	199.29	353.62	305.16	79.15	-6.34	0.178
124.50	-9.55	-16.64	0.00	-277.8	0.00	277.81	797.47	199.29	353.62	305.16	79.15	-6.34	0.929
125.00	-9.42	-16.56	0.00	-269.5	0.00	269.49	795.39	198.46	350.69	303.09	79.82	-6.35	0.908
127.00	-7.98	-15.31	0.00	-236.4	0.00	236.37	786.97	195.14	339.05	294.81	82.53	-6.63	0.818
130.00	-6.89	-12.14	0.00	-190.4	0.00	190.45	774.02	190.16	321.97	282.49	86.82	-7.01	0.687
135.00	-6.52	-11.81	0.00	-129.7	0.00	129.73	751.62	181.86	294.48	262.21	94.43	-7.52	0.508
140.00	-3.71	-6.92	0.00	-70.7	0.00	70.66	728.18	173.55	268.22	242.31	102.5	-7.89	0.298
144.00	-3.37	-6.51	0.00	-43.0	0.00	42.98	701.03	166.91	248.09	224.25	109.17	-8.08	0.198
145.00	-3.33	-6.35	0.00	-36.5	0.00	36.47	694.06	165.25	243.18	219.78	110.86	-8.12	0.172
149.00	-2.98	-5.86	0.00	-11.1	0.00	11.08	666.17	158.61	224.03	202.37	117.69	-8.21	0.061
150.00	0.00	-5.37	0.00	-5.2	0.00	5.23	659.19	156.95	219.37	198.13	119.4	-8.22	0.028

ASSET: 302489, Enfd - Enfield
CUSTOMER: AT&T MOBILITY

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

Load Case: 1.2D + 1.0Di + 1.0Wi Normal		77 mph wind with 1.65" radial ice		26 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	-108.69	-27.98	0.00	-3,018.2	0.00	3,018.20	3,157.17	784.20	2,737.77	2,376.61	0	0	0.497
5.00	-105.45	-27.81	0.00	-2,878.3	0.00	2,878.32	3,114.35	767.59	2,623.11	2,294.24	0.11	-0.2	0.481
10.00	-102.17	-27.60	0.00	-2,739.3	0.00	2,739.27	3,070.50	750.99	2,510.89	2,212.51	0.43	-0.4	0.465
15.00	-98.45	-27.36	0.00	-2,601.3	0.00	2,601.26	3,025.61	734.39	2,401.13	2,131.46	0.96	-0.6	0.448
20.00	-94.74	-27.06	0.00	-2,464.5	0.00	2,464.46	2,979.68	717.78	2,293.82	2,051.14	1.7	-0.8	0.432
23.60	-92.08	-26.80	0.00	-2,367.1	0.00	2,367.06	2,945.97	705.83	2,218.08	1,993.78	2.36	-0.94	0.419
25.00	-91.01	-26.71	0.00	-2,329.5	0.00	2,329.54	2,932.71	701.18	2,188.97	1,971.59	2.64	-1	0.414
30.00	-87.34	-26.30	0.00	-2,196.0	0.00	2,195.99	2,875.21	684.57	2,086.57	1,886.65	3.79	-1.19	0.398
31.50	-86.22	-26.17	0.00	-2,156.5	0.00	2,156.54	2,854.29	679.59	2,056.33	1,859.14	4.18	-1.25	0.394
35.00	-83.19	-25.84	0.00	-2,065.0	0.00	2,064.95	2,805.48	667.97	1,986.62	1,795.73	5.15	-1.39	0.377
35.67	-82.58	-25.76	0.00	-2,047.7	0.00	2,047.72	2,248.07	566.94	1,717.07	1,468.70	5.34	-1.41	0.420
40.00	-79.49	-25.32	0.00	-1,936.1	0.00	1,936.10	2,218.59	554.95	1,645.23	1,418.49	6.7	-1.57	0.401
45.00	-75.94	-24.77	0.00	-1,809.5	0.00	1,809.52	2,183.60	541.11	1,564.24	1,360.97	8.45	-1.76	0.380
50.00	-72.42	-24.19	0.00	-1,685.7	0.00	1,685.67	2,147.58	527.27	1,485.29	1,303.95	10.39	-1.94	0.359
55.00	-68.91	-23.56	0.00	-1,564.8	0.00	1,564.75	2,110.52	513.44	1,408.39	1,247.47	12.52	-2.12	0.338
60.00	-65.43	-22.90	0.00	-1,446.9	0.00	1,446.94	2,072.41	499.60	1,333.53	1,191.58	14.84	-2.3	0.316
65.00	-61.98	-22.23	0.00	-1,332.4	0.00	1,332.44	2,033.27	485.76	1,260.72	1,136.35	17.33	-2.46	0.295
68.70	-59.44	-21.72	0.00	-1,250.2	0.00	1,250.20	1,997.21	475.53	1,208.15	1,092.40	19.29	-2.59	0.281
68.70	-59.44	-21.72	0.00	-1,250.2	0.00	1,250.20	1,997.21	475.53	1,208.15	1,092.40	19.29	-2.59	0.549
70.00	-58.62	-21.57	0.00	-1,222.0	0.00	1,221.96	1,982.10	471.93	1,189.95	1,075.84	20	-2.63	0.541
73.50	-56.18	-21.14	0.00	-1,146.5	0.00	1,146.48	1,473.96	377.74	952.81	802.32	22.01	-2.85	0.604
75.00	-55.25	-20.97	0.00	-1,114.8	0.00	1,114.77	1,466.28	374.42	936.13	791.05	22.92	-2.94	0.591
80.00	-52.68	-20.53	0.00	-1,009.9	0.00	1,009.91	1,440.00	363.35	881.62	753.69	26.17	-3.26	0.549
85.00	-50.32	-20.13	0.00	-907.3	0.00	907.28	1,412.68	352.28	828.74	716.65	29.75	-3.57	0.506
90.00	-48.00	-19.71	0.00	-806.6	0.00	806.61	1,384.32	341.21	777.49	679.98	33.65	-3.86	0.462
95.00	-45.71	-19.25	0.00	-708.1	0.00	708.08	1,354.92	330.14	727.89	643.72	37.84	-4.14	0.418
100.00	-43.45	-18.76	0.00	-611.8	0.00	611.85	1,324.47	319.08	679.91	607.94	42.31	-4.4	0.372
104.00	-40.60	-17.97	0.00	-536.8	0.00	536.80	1,299.37	310.22	642.71	579.69	46.08	-4.59	0.334
105.00	-40.14	-17.84	0.00	-518.8	0.00	518.84	1,292.99	308.01	633.57	572.68	47.04	-4.64	0.325
108.00	-38.70	-17.46	0.00	-465.1	0.00	465.12	1,265.73	301.36	606.56	548.38	50	-4.77	0.299
110.00	-37.86	-17.25	0.00	-430.2	0.00	430.20	1,247.13	296.94	588.87	532.29	52.02	-4.86	0.282
110.00	-37.86	-17.25	0.00	-430.2	0.00	430.20	853.24	223.36	444.19	366.34	52.02	-4.86	0.339
111.00	-34.22	-15.52	0.00	-412.7	0.00	412.70	849.67	221.70	437.62	362.07	53.04	-4.9	0.325
115.00	-32.57	-15.01	0.00	-350.6	0.00	350.62	834.99	215.06	411.80	345.06	57.21	-5.06	0.282
118.60	-30.43	-14.12	0.00	-296.6	0.00	296.57	821.22	209.09	389.23	329.85	61.07	-5.19	0.243
119.13	-30.17	-14.02	0.00	-289.1	0.00	289.08	819.14	208.21	385.96	327.62	61.65	-5.21	0.238
120.00	-29.70	-13.85	0.00	-276.9	0.00	276.89	815.71	206.76	380.63	323.96	62.6	-5.24	0.118
121.00	-29.15	-13.60	0.00	-263.0	0.00	263.03	811.73	205.10	374.54	319.77	63.7	-5.26	0.113
121.00	-29.15	-13.60	0.00	-263.0	0.00	263.03	811.73	205.10	374.54	319.77	63.7	-5.26	0.178
124.50	-27.52	-13.00	0.00	-215.4	0.00	215.42	797.47	199.29	353.62	305.16	67.57	-5.31	0.149
124.50	-27.52	-13.00	0.00	-215.4	0.00	215.42	797.47	199.29	353.62	305.16	67.57	-5.31	0.745
125.00	-27.30	-12.93	0.00	-208.9	0.00	208.92	795.39	198.46	350.69	303.09	68.13	-5.32	0.728
127.00	-24.60	-11.73	0.00	-183.1	0.00	183.07	786.97	195.14	339.05	294.81	70.4	-5.54	0.656
130.00	-20.32	-9.36	0.00	-147.9	0.00	147.88	774.02	190.16	321.97	282.49	73.98	-5.83	0.552
135.00	-19.63	-9.18	0.00	-101.1	0.00	101.09	751.62	181.86	294.48	262.21	80.3	-6.23	0.414
140.00	-11.48	-5.54	0.00	-55.2	0.00	55.21	728.18	173.55	268.22	242.31	86.98	-6.52	0.245
144.00	-10.70	-5.13	0.00	-33.0	0.00	33.05	701.03	166.91	248.09	224.25	92.49	-6.67	0.164
145.00	-10.57	-4.99	0.00	-27.9	0.00	27.93	694.06	165.25	243.18	219.78	93.89	-6.69	0.143
149.00	-9.55	-4.49	0.00	-8.0	0.00	7.98	666.17	158.61	224.03	202.37	99.52	-6.76	0.055
150.00	0.00	-3.34	0.00	-3.5	0.00	3.49	659.19	156.95	219.37	198.13	100.94	-6.77	0.018

ASSET: 302489, Enfd - Enfield
CUSTOMER: AT&T MOBILITY

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

Load Case: 1.0D + 1.0W Service Normal	60 mph Wind with No Ice	25 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	-60.32	-7.27	0.00	-826.9	0.00	826.87	3,157.17	784.20	2,737.77	2,376.61	0	0	0.141
5.00	-58.15	-7.21	0.00	-790.5	0.00	790.51	3,114.35	767.59	2,623.11	2,294.24	0.03	-0.06	0.137
10.00	-56.00	-7.15	0.00	-754.4	0.00	754.45	3,070.50	750.99	2,510.89	2,212.51	0.12	-0.11	0.133
15.00	-53.66	-7.08	0.00	-718.7	0.00	718.70	3,025.61	734.39	2,401.13	2,131.46	0.26	-0.17	0.128
20.00	-51.33	-7.02	0.00	-683.3	0.00	683.28	2,979.68	717.78	2,293.82	2,051.14	0.47	-0.22	0.124
23.60	-49.67	-6.98	0.00	-658.0	0.00	658.02	2,945.97	705.83	2,218.08	1,993.78	0.65	-0.26	0.120
25.00	-49.02	-6.93	0.00	-648.2	0.00	648.25	2,932.71	701.18	2,188.97	1,971.59	0.73	-0.28	0.119
30.00	-46.73	-6.87	0.00	-613.6	0.00	613.60	2,875.21	684.57	2,086.57	1,886.65	1.04	-0.33	0.115
31.50	-46.05	-6.82	0.00	-603.3	0.00	603.30	2,854.29	679.59	2,056.33	1,859.14	1.15	-0.35	0.114
35.00	-44.07	-6.78	0.00	-579.4	0.00	579.42	2,805.48	667.97	1,986.62	1,795.73	1.42	-0.38	0.109
35.67	-43.69	-6.73	0.00	-574.9	0.00	574.90	2,248.07	566.94	1,717.07	1,468.70	1.47	-0.39	0.122
40.00	-41.81	-6.64	0.00	-545.7	0.00	545.72	2,218.59	554.95	1,645.23	1,418.49	1.85	-0.44	0.117
45.00	-39.66	-6.54	0.00	-512.5	0.00	512.51	2,183.60	541.11	1,564.24	1,360.97	2.33	-0.49	0.111
50.00	-37.52	-6.43	0.00	-479.8	0.00	479.83	2,147.58	527.27	1,485.29	1,303.95	2.87	-0.54	0.105
55.00	-35.40	-6.32	0.00	-447.7	0.00	447.69	2,110.52	513.44	1,408.39	1,247.47	3.47	-0.59	0.099
60.00	-33.29	-6.20	0.00	-416.1	0.00	416.11	2,072.41	499.60	1,333.53	1,191.58	4.12	-0.64	0.093
65.00	-31.19	-6.09	0.00	-385.1	0.00	385.11	2,033.27	485.76	1,260.72	1,136.35	4.82	-0.69	0.088
68.70	-29.65	-6.02	0.00	-362.6	0.00	362.58	1,997.21	475.53	1,208.15	1,092.40	5.36	-0.73	0.084
68.70	-29.65	-6.02	0.00	-362.6	0.00	362.58	1,997.21	475.53	1,208.15	1,092.40	5.36	-0.73	0.162
70.00	-29.20	-5.98	0.00	-354.8	0.00	354.75	1,982.10	471.93	1,189.95	1,075.84	5.56	-0.74	0.160
73.50	-27.72	-5.92	0.00	-333.8	0.00	333.82	1,473.96	377.74	952.81	802.32	6.13	-0.8	0.179
75.00	-27.22	-5.87	0.00	-324.9	0.00	324.94	1,466.28	374.42	936.13	791.05	6.39	-0.83	0.176
80.00	-25.80	-5.77	0.00	-295.6	0.00	295.61	1,440.00	363.35	881.62	753.69	7.31	-0.92	0.164
85.00	-24.50	-5.67	0.00	-266.8	0.00	266.76	1,412.68	352.28	828.74	716.65	8.32	-1.01	0.152
90.00	-23.21	-5.57	0.00	-238.4	0.00	238.39	1,384.32	341.21	777.49	679.98	9.43	-1.1	0.139
95.00	-21.93	-5.47	0.00	-210.5	0.00	210.52	1,354.92	330.14	727.89	643.72	10.62	-1.18	0.126
100.00	-20.66	-5.37	0.00	-183.2	0.00	183.17	1,324.47	319.08	679.91	607.94	11.9	-1.26	0.113
104.00	-19.10	-5.20	0.00	-161.7	0.00	161.68	1,299.37	310.22	642.71	579.69	12.98	-1.32	0.102
105.00	-18.85	-5.16	0.00	-156.5	0.00	156.48	1,292.99	308.01	633.57	572.68	13.26	-1.33	0.100
108.00	-18.09	-5.08	0.00	-140.9	0.00	140.90	1,265.73	301.36	606.56	548.38	14.11	-1.37	0.092
110.00	-17.60	-5.05	0.00	-130.7	0.00	130.73	1,247.13	296.94	588.87	532.29	14.69	-1.4	0.087
110.00	-17.60	-5.05	0.00	-130.7	0.00	130.73	853.24	223.36	444.19	366.34	14.69	-1.4	0.105
111.00	-16.29	-4.45	0.00	-125.6	0.00	125.59	849.67	221.70	437.62	362.07	14.99	-1.41	0.100
115.00	-15.34	-4.36	0.00	-107.8	0.00	107.80	834.99	215.06	411.80	345.06	16.19	-1.46	0.088
118.60	-14.19	-4.20	0.00	-92.1	0.00	92.10	821.22	209.09	389.23	329.85	17.31	-1.5	0.077
119.13	-14.04	-4.18	0.00	-89.9	0.00	89.88	819.14	208.21	385.96	327.62	17.47	-1.51	0.075
120.00	-13.75	-4.16	0.00	-86.2	0.00	86.24	815.71	206.76	380.63	323.96	17.75	-1.52	0.037
121.00	-13.42	-4.11	0.00	-82.1	0.00	82.08	811.73	205.10	374.54	319.77	18.07	-1.52	0.036
121.00	-13.42	-4.11	0.00	-82.1	0.00	82.08	811.73	205.10	374.54	319.77	18.07	-1.52	0.057
124.50	-12.48	-4.04	0.00	-67.7	0.00	67.70	797.47	199.29	353.62	305.16	19.19	-1.54	0.048
124.50	-12.48	-4.04	0.00	-67.7	0.00	67.70	797.47	199.29	353.62	305.16	19.19	-1.54	0.238
125.00	-12.37	-4.03	0.00	-65.7	0.00	65.68	795.39	198.46	350.69	303.09	19.35	-1.54	0.233
127.00	-10.73	-3.72	0.00	-57.6	0.00	57.63	786.97	195.14	339.05	294.81	20.01	-1.61	0.209
130.00	-9.22	-2.96	0.00	-46.5	0.00	46.46	774.02	190.16	321.97	282.49	21.05	-1.7	0.177
135.00	-8.85	-2.88	0.00	-31.7	0.00	31.66	751.62	181.86	294.48	262.21	22.9	-1.83	0.133
140.00	-5.09	-1.69	0.00	-17.2	0.00	17.24	728.18	173.55	268.22	242.31	24.87	-1.92	0.078
144.00	-4.68	-1.59	0.00	-10.5	0.00	10.48	701.03	166.91	248.09	224.25	26.49	-1.96	0.053
145.00	-4.61	-1.55	0.00	-8.9	0.00	8.89	694.06	165.25	243.18	219.78	26.91	-1.97	0.047
149.00	-4.15	-1.43	0.00	-2.7	0.00	2.68	666.17	158.61	224.03	202.37	28.57	-1.99	0.020
150.00	0.00	-1.29	0.00	-1.2	0.00	1.25	659.19	156.95	219.37	198.13	28.99	-2	0.006

EQUIVALENT LATERAL FORCES METHOD ANALYSIS

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

Spectral Response Acceleration for Short Period (S_S):	0.174
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.055
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}):	0.186
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.088
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):	2.890
Redundancy Factor (ρ):	1.000
Seismic Force Distribution Exponent (k):	2.000
Total Unfactored Dead Load:	60.320 k
Seismic Base Shear (E):	1.810 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)
45	149.5	65	1,446	0.003	6	80
44	147	262	5,662	0.012	22	324
43	144.5	66	1,385	0.003	5	82
42	142	268	5,413	0.012	21	332
41	137.5	354	6,695	0.014	26	438
40	132.5	362	6,358	0.014	25	448
39	128.5	377	6,231	0.014	24	467
38	126	298	4,726	0.010	19	368
37	124.75	108	1,681	0.004	7	134
36	122.75	934	14,070	0.030	55	1,155
35	120.5	334	4,854	0.010	19	414
34	119.565	291	4,162	0.009	16	360
33	118.865	151	2,132	0.005	8	187
32	116.8	1,027	14,017	0.030	55	1,271
31	113	946	12,081	0.026	47	1,170
30	110.5	225	2,750	0.006	11	279
29	109	480	5,705	0.012	22	594
28	106.5	745	8,454	0.018	33	922
27	104.5	249	2,723	0.006	11	308
26	102	1,002	10,421	0.023	41	1,239
25	97.5	1,262	11,993	0.026	47	1,561
24	92.5	1,272	10,887	0.024	43	1,574
23	87.5	1,283	9,824	0.021	39	1,587
22	82.5	1,294	8,806	0.019	35	1,601
21	77.5	1,418	8,518	0.018	33	1,754
20	74.25	494	2,722	0.006	11	611
19	71.75	1,473	7,581	0.016	30	1,822
18	69.35	452	2,176	0.005	9	560
17	66.85	1,540	6,882	0.015	27	1,905
16	62.5	2,093	8,174	0.018	32	2,589
15	57.5	2,106	6,963	0.015	27	2,605
14	52.5	2,120	5,842	0.013	23	2,622
13	47.5	2,133	4,813	0.010	19	2,639
12	42.5	2,146	3,877	0.008	15	2,655

ASSET: 302489, Enfd - Enfield
 CUSTOMER: AT&T MOBILITY

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

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
11	37.8334	1,871	2,678	0.006	11	2,315
10	35.3334	375	468	0.001	2	464
9	33.25	1,977	2,186	0.005	9	2,446
8	30.75	683	646	0.001	3	845
7	27.5	2,287	1,729	0.004	7	2,829
6	24.3	643	380	0.001	1	796
5	21.8	1,660	789	0.002	3	2,053
4	17.5	2,319	710	0.002	3	2,869
3	12.5	2,335	365	0.001	1	2,889
2	7.5	2,147	121	0.000	0	2,656
1	2.5	2,163	14	0.000	0	2,676
Decibel DB809KE-SY	150	26	585	0.001	2	32
Ericsson Air 6449 B77D	150	245	5,508	0.012	22	303
Raycap DC6-48-60-18-8F ("Squid")	150	64	1,431	0.003	6	79
Ericsson RRUS 8843 B2, B66A	150	216	4,860	0.010	19	267
Ericsson RRUS 4449 B5, B12	150	213	4,792	0.010	19	264
Ericsson RRUS 4478 B14	150	178	4,010	0.009	16	220
Ericsson RRUS 32 B30	150	180	4,050	0.009	16	223
Raycap DC9-48-60-24-8C-EV	150	16	360	0.001	1	20
CCI DMP65R-BU8D	150	287	6,460	0.014	25	355
CCI TPA65R-BU8D (87.5 lbs)	150	262	5,906	0.013	23	325
Round Side Arm	150	450	10,125	0.022	40	557
Platform w/ Handrails	150	2,000	45,000	0.098	177	2,474
Platform w/ Handrails	140	2,000	39,200	0.085	154	2,474
Ericsson AIR 6419 B77G	149	198	4,402	0.010	17	245
Stand-Off	144	150	3,110	0.007	12	186
Commscope SDX1926Q-43	140	19	365	0.001	1	23
Ericsson Radio 4449 B71 B85A	140	225	4,410	0.010	17	278
Ericsson RRUS 4415 B66	140	138	2,705	0.006	11	171
Ericsson 4424 B25	140	258	5,057	0.011	20	319
Ericsson Air6449 B41	140	312	6,115	0.013	24	386
RFS APX16DWV-16DWVS-E-A20	140	122	2,393	0.005	9	151
RFS APXVAALL24 43-U-NA20	140	368	7,221	0.016	28	456
Samsung Outdoor CBRS 20W RRH	130	56	943	0.002	4	69
Samsung B5/B13 RRH-BR04C	130	211	3,564	0.008	14	261
Samsung B2/B66A RRH-BR049	130	253	4,279	0.009	17	313
Raycap RCMDC-6627-PF-48	130	32	541	0.001	2	40
Samsung MT6407-77A	130	245	4,137	0.009	16	303
Amphenol Antel BXA-80080-6CF-EDIN-X	130	54	913	0.002	4	67
Commscope NHH-65B-R2B	130	131	2,216	0.005	9	162
Commscope NHHSS-65C-R2B	130	168	2,839	0.006	11	208
Round Low Profile Platform	127	1,350	21,774	0.047	85	1,670
Generic 76" x 6" Panel	118.6	120	1,688	0.004	7	148
DragonWave Horizon Compact	111	21	261	0.001	1	26
Alcatel-Lucent RRH2x50-08	111	317	3,911	0.008	15	393
Nokia FZHN Flexi RRH 8TR 2600 9*20W	111	132	1,630	0.004	6	164
Alcatel-Lucent 1900MHz RRH (65MHz) w/ solar shield	111	180	2,218	0.005	9	223
DragonWave A-ANT-11G-2-C	111	54	665	0.001	3	67
RFS APXVTM14-ALU-I20	111	169	2,077	0.004	8	209
Commscope NNVV-65B-R4	111	232	2,861	0.006	11	287
Generic 24" x 24" Junction Box	108	20	233	0.000	1	25
Side Arms	104	560	6,057	0.013	24	693
Generic Blank Exhibit	40	0	0	0.000	0	0
		60,325	460,981	1.000	1,810	74,629

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)
45	149.5	65	1,446	0.003	6	56
44	147	262	5,662	0.012	22	226
43	144.5	66	1,385	0.003	5	57

ASSET: 302489, Enfd - Enfield
 CUSTOMER: AT&T MOBILITY

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

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
42	142	268	5,413	0.012	21	232
41	137.5	354	6,695	0.014	26	306
40	132.5	362	6,358	0.014	25	313
39	128.5	377	6,231	0.014	24	326
38	126	298	4,726	0.010	19	257
37	124.75	108	1,681	0.004	7	93
36	122.75	934	14,070	0.030	55	806
35	120.5	334	4,854	0.010	19	288
34	119.565	291	4,162	0.009	16	251
33	118.865	151	2,132	0.005	8	130
32	116.8	1,027	14,017	0.030	55	887
31	113	946	12,081	0.026	47	816
30	110.5	225	2,750	0.006	11	194
29	109	480	5,705	0.012	22	414
28	106.5	745	8,454	0.018	33	643
27	104.5	249	2,723	0.006	11	215
26	102	1,002	10,421	0.023	41	864
25	97.5	1,262	11,993	0.026	47	1,089
24	92.5	1,272	10,887	0.024	43	1,098
23	87.5	1,283	9,824	0.021	39	1,107
22	82.5	1,294	8,806	0.019	35	1,116
21	77.5	1,418	8,518	0.018	33	1,224
20	74.25	494	2,722	0.006	11	426
19	71.75	1,473	7,581	0.016	30	1,271
18	69.35	452	2,176	0.005	9	390
17	66.85	1,540	6,882	0.015	27	1,329
16	62.5	2,093	8,174	0.018	32	1,806
15	57.5	2,106	6,963	0.015	27	1,817
14	52.5	2,120	5,842	0.013	23	1,829
13	47.5	2,133	4,813	0.010	19	1,840
12	42.5	2,146	3,877	0.008	15	1,852
11	37.8334	1,871	2,678	0.006	11	1,614
10	35.3334	375	468	0.001	2	324
9	33.25	1,977	2,186	0.005	9	1,706
8	30.75	683	646	0.001	3	589
7	27.5	2,287	1,729	0.004	7	1,973
6	24.3	643	380	0.001	1	555
5	21.8	1,660	789	0.002	3	1,432
4	17.5	2,319	710	0.002	3	2,001
3	12.5	2,335	365	0.001	1	2,015
2	7.5	2,147	121	0.000	0	1,853
1	2.5	2,163	14	0.000	0	1,867
Decibel DB809KE-SY	150	26	585	0.001	2	22
Ericsson Air 6449 B77D	150	245	5,508	0.012	22	211
Raycap DC6-48-60-18-8F ("Squid")	150	64	1,431	0.003	6	55
Ericsson RRUS 8843 B2, B66A	150	216	4,860	0.010	19	186
Ericsson RRUS 4449 B5, B12	150	213	4,792	0.010	19	184
Ericsson RRUS 4478 B14	150	178	4,010	0.009	16	154
Ericsson RRUS 32 B30	150	180	4,050	0.009	16	155
Raycap DC9-48-60-24-8C-EV	150	16	360	0.001	1	14
CCI DMP65R-BU8D	150	287	6,460	0.014	25	248
CCI TPA65R-BU8D (87.5 lbs)	150	262	5,906	0.013	23	227
Round Side Arm	150	450	10,125	0.022	40	388
Platform w/ Handrails	150	2,000	45,000	0.098	177	1,726
Platform w/ Handrails	140	2,000	39,200	0.085	154	1,726
Ericsson AIR 6419 B77G	149	198	4,402	0.010	17	171
Stand-Off	144	150	3,110	0.007	12	129
Commscope SDX1926Q-43	140	19	365	0.001	1	16
Ericsson Radio 4449 B71 B85A	140	225	4,410	0.010	17	194
Ericsson RRUS 4415 B66	140	138	2,705	0.006	11	119
Ericsson 4424 B25	140	258	5,057	0.011	20	223
Ericsson Air6449 B41	140	312	6,115	0.013	24	269
RFS APX16DWV-16DWVS-E-A20	140	122	2,393	0.005	9	105
RFS APXVAALL24 43-U-NA20	140	368	7,221	0.016	28	318
Samsung Outdoor CBRS 20W RRH	130	56	943	0.002	4	48
Samsung B5/B13 RRH-BR04C	130	211	3,564	0.008	14	182
Samsung B2/B66A RRH-BR049	130	253	4,279	0.009	17	218
Raycap RCMDC-6627-PF-48	130	32	541	0.001	2	28
Samsung MT6407-77A	130	245	4,137	0.009	16	211
Amphenol Antel BXA-80080-6CF-EDIN-X	130	54	913	0.002	4	47

ASSET: 302489, Enfd - Enfield
CUSTOMER: AT&T MOBILITY

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

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
Commscope NHH-65B-R2B	130	131	2,216	0.005	9	113
Commscope NHHSS-65C-R2B	130	168	2,839	0.006	11	145
Round Low Profile Platform	127	1,350	21,774	0.047	85	1,165
Generic 76" x 6" Panel	118.6	120	1,688	0.004	7	104
DragonWave Horizon Compact	111	21	261	0.001	1	18
Alcatel-Lucent RRH2x50-08	111	317	3,911	0.008	15	274
Nokia FZHN Flexi RRH 8TR 2600 9*20W	111	132	1,630	0.004	6	114
Alcatel-Lucent 1900MHz RRH (65MHz) w/ solar shield	111	180	2,218	0.005	9	155
DragonWave A-ANT-11G-2-C	111	54	665	0.001	3	47
RFS APXVTM14-ALU-I20	111	169	2,077	0.004	8	145
Commscope NNVV-65B-R4	111	232	2,861	0.006	11	200
Generic 24" x 24" Junction Box	108	20	233	0.000	1	17
Side Arms	104	560	6,057	0.013	24	483
Generic Blank Exhibit	40	0	0	0.000	0	0
		60,325	460,981	1.000	1,810	52,053

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	-71.95	-1.82	0.00	-227.94	0.00	227.94	3,157.17	784.20	2,738	2,376.61	0.00	0.00	0.05
5.00	-69.30	-1.84	0.00	-218.85	0.00	218.85	3,114.35	767.59	2,623	2,294.24	0.01	-0.02	0.05
10.00	-66.41	-1.85	0.00	-209.67	0.00	209.67	3,070.50	750.99	2,511	2,212.51	0.03	-0.03	0.05
15.00	-63.54	-1.86	0.00	-200.41	0.00	200.41	3,025.61	734.39	2,401	2,131.46	0.07	-0.05	0.04
20.00	-61.48	-1.87	0.00	-191.10	0.00	191.10	2,979.68	717.78	2,294	2,051.14	0.13	-0.06	0.04
23.60	-60.69	-1.88	0.00	-184.36	0.00	184.36	2,945.97	705.83	2,218	1,993.78	0.18	-0.07	0.04
23.60	-60.69	-1.88	0.00	-184.36	0.00	184.36	2,945.97	705.83	2,218	1,993.78	0.18	-0.07	0.04
25.00	-57.86	-1.88	0.00	-181.73	0.00	181.73	2,932.71	701.18	2,189	1,971.59	0.20	-0.08	0.04
30.00	-57.01	-1.88	0.00	-172.34	0.00	172.34	2,875.21	684.57	2,087	1,886.65	0.29	-0.09	0.04
31.50	-54.57	-1.88	0.00	-169.52	0.00	169.52	2,854.29	679.59	2,056	1,859.14	0.32	-0.10	0.04
35.00	-54.10	-1.88	0.00	-162.94	0.00	162.94	2,805.48	667.97	1,987	1,795.73	0.39	-0.11	0.04
35.67	-51.79	-1.87	0.00	-161.69	0.00	161.69	2,248.07	566.94	1,717	1,468.70	0.41	-0.11	0.04
40.00	-49.13	-1.86	0.00	-153.57	0.00	153.57	2,218.59	554.95	1,645	1,418.49	0.51	-0.12	0.04
45.00	-46.49	-1.85	0.00	-144.25	0.00	144.25	2,183.60	541.11	1,564	1,360.97	0.65	-0.14	0.04
50.00	-43.87	-1.83	0.00	-134.99	0.00	134.99	2,147.58	527.27	1,485	1,303.95	0.80	-0.15	0.04
55.00	-41.26	-1.81	0.00	-125.82	0.00	125.82	2,110.52	513.44	1,408	1,247.47	0.97	-0.17	0.03
60.00	-38.68	-1.78	0.00	-116.78	0.00	116.78	2,072.41	499.60	1,334	1,191.58	1.15	-0.18	0.03
65.00	-36.77	-1.75	0.00	-107.89	0.00	107.89	2,033.27	485.76	1,261	1,136.35	1.34	-0.19	0.03
68.70	-36.21	-1.75	0.00	-101.40	0.00	101.40	1,997.21	475.53	1,208	1,092.40	1.50	-0.20	0.03
68.70	-36.21	-1.75	0.00	-101.40	0.00	101.40	1,997.21	475.53	1,208	1,092.40	1.50	-0.20	0.05
70.00	-34.39	-1.72	0.00	-99.13	0.00	99.13	1,982.10	471.93	1,190	1,075.84	1.55	-0.21	0.05
73.50	-33.78	-1.71	0.00	-93.12	0.00	93.12	1,473.96	377.74	953	802.32	1.71	-0.22	0.06
75.00	-32.02	-1.68	0.00	-90.56	0.00	90.56	1,466.28	374.42	936	791.05	1.78	-0.23	0.06
80.00	-30.42	-1.65	0.00	-82.16	0.00	82.16	1,440.00	363.35	882	753.69	2.04	-0.26	0.05
85.00	-28.83	-1.62	0.00	-73.89	0.00	73.89	1,412.68	352.28	829	716.65	2.33	-0.28	0.05
90.00	-27.26	-1.58	0.00	-65.80	0.00	65.80	1,384.32	341.21	777	679.98	2.63	-0.31	0.05
95.00	-25.70	-1.53	0.00	-57.91	0.00	57.91	1,354.92	330.14	728	643.72	2.97	-0.33	0.04
100.00	-24.46	-1.49	0.00	-50.24	0.00	50.24	1,324.47	319.08	680	607.94	3.33	-0.35	0.04
104.00	-23.46	-1.46	0.00	-44.27	0.00	44.27	1,299.37	310.22	643	579.69	3.63	-0.37	0.04
105.00	-22.54	-1.42	0.00	-42.82	0.00	42.82	1,292.99	308.01	634	572.68	3.70	-0.37	0.03
108.00	-21.92	-1.40	0.00	-38.56	0.00	38.56	1,265.73	301.36	607	548.38	3.94	-0.38	0.03
110.00	-21.64	-1.39	0.00	-35.77	0.00	35.77	1,247.13	296.94	589	532.29	4.10	-0.39	0.03
110.00	-21.64	-1.39	0.00	-35.77	0.00	35.77	853.24	223.36	444	366.34	4.10	-0.39	0.04
111.00	-19.10	-1.27	0.00	-34.38	0.00	34.38	849.67	221.70	438	362.07	4.18	-0.39	0.03
115.00	-17.83	-1.21	0.00	-29.30	0.00	29.30	834.99	215.06	412	345.06	4.52	-0.41	0.03
118.60	-17.49	-1.19	0.00	-24.95	0.00	24.95	821.22	209.09	389	329.85	4.83	-0.42	0.03
119.13	-17.13	-1.18	0.00	-24.31	0.00	24.31	819.14	208.21	386	327.62	4.87	-0.42	0.03
120.00	-16.72	-1.15	0.00	-23.29	0.00	23.29	815.71	206.76	381	323.96	4.95	-0.42	0.01
121.00	-15.57	-1.09	0.00	-22.14	0.00	22.14	811.73	205.10	375	319.77	5.04	-0.42	0.01
121.00	-15.57	-1.09	0.00	-22.14	0.00	22.14	811.73	205.10	375	319.77	5.04	-0.42	0.02
124.50	-15.43	-1.08	0.00	-18.31	0.00	18.31	797.47	199.29	354	305.16	5.35	-0.43	0.02
124.50	-15.43	-1.08	0.00	-18.31	0.00	18.31	797.47	199.29	354	305.16	5.35	-0.43	0.08

ASSET: 302489, Enfd - Enfield
CUSTOMER: AT&T MOBILITY

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

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
125.00	-15.06	-1.07	0.00	-17.77	0.00	17.77	795.39	198.46	351	303.09	5.40	-0.43	0.08
127.00	-12.93	-0.95	0.00	-15.64	0.00	15.64	786.97	195.14	339	294.81	5.58	-0.45	0.07
130.00	-11.06	-0.83	0.00	-12.80	0.00	12.80	774.02	190.16	322	282.49	5.87	-0.47	0.06
135.00	-10.62	-0.81	0.00	-8.63	0.00	8.63	751.62	181.86	294	262.21	6.38	-0.51	0.05
140.00	-6.03	-0.48	0.00	-4.58	0.00	4.58	728.18	173.55	268	242.31	6.92	-0.53	0.03
144.00	-5.76	-0.47	0.00	-2.64	0.00	2.64	701.03	166.91	248	224.25	7.37	-0.54	0.02
145.00	-5.44	-0.44	0.00	-2.18	0.00	2.18	694.06	165.25	243	219.78	7.49	-0.54	0.02
149.00	-5.11	-0.41	0.00	-0.41	0.00	0.41	666.17	158.61	224	202.37	7.95	-0.55	0.01
150.00	0.00	-0.37	0.00	0.00	0.00	0.00	659.19	156.95	219	198.13	8.06	-0.55	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	-50.19	-1.82	0.00	-222.83	0.00	222.83	3,157.17	784.20	2,738	2,376.61	0.00	0.00	0.04
5.00	-48.33	-1.83	0.00	-213.76	0.00	213.76	3,114.35	767.59	2,623	2,294.24	0.01	-0.01	0.04
10.00	-46.32	-1.84	0.00	-204.62	0.00	204.62	3,070.50	750.99	2,511	2,212.51	0.03	-0.03	0.04
15.00	-44.32	-1.84	0.00	-195.44	0.00	195.44	3,025.61	734.39	2,401	2,131.46	0.07	-0.04	0.04
20.00	-42.88	-1.85	0.00	-186.22	0.00	186.22	2,979.68	717.78	2,294	2,051.14	0.13	-0.06	0.04
23.60	-42.33	-1.85	0.00	-179.56	0.00	179.56	2,945.97	705.83	2,218	1,993.78	0.18	-0.07	0.04
23.60	-42.33	-1.85	0.00	-179.56	0.00	179.56	2,945.97	705.83	2,218	1,993.78	0.18	-0.07	0.04
25.00	-40.35	-1.85	0.00	-176.96	0.00	176.96	2,932.71	701.18	2,189	1,971.59	0.20	-0.07	0.04
30.00	-39.77	-1.85	0.00	-167.71	0.00	167.71	2,875.21	684.57	2,087	1,886.65	0.28	-0.09	0.04
31.50	-38.06	-1.85	0.00	-164.93	0.00	164.93	2,854.29	679.59	2,056	1,859.14	0.31	-0.09	0.04
35.00	-37.74	-1.85	0.00	-158.47	0.00	158.47	2,805.48	667.97	1,987	1,795.73	0.38	-0.10	0.03
35.67	-36.12	-1.84	0.00	-157.23	0.00	157.23	2,248.07	566.94	1,717	1,468.70	0.40	-0.11	0.04
40.00	-34.27	-1.83	0.00	-149.26	0.00	149.26	2,218.59	554.95	1,645	1,418.49	0.50	-0.12	0.04
45.00	-32.43	-1.81	0.00	-140.11	0.00	140.11	2,183.60	541.11	1,564	1,360.97	0.63	-0.13	0.04
50.00	-30.60	-1.79	0.00	-131.04	0.00	131.04	2,147.58	527.27	1,485	1,303.95	0.78	-0.15	0.03
55.00	-28.78	-1.77	0.00	-122.07	0.00	122.07	2,110.52	513.44	1,408	1,247.47	0.94	-0.16	0.03
60.00	-26.97	-1.74	0.00	-113.22	0.00	113.22	2,072.41	499.60	1,334	1,191.58	1.12	-0.17	0.03
65.00	-25.65	-1.71	0.00	-104.53	0.00	104.53	2,033.27	485.76	1,261	1,136.35	1.31	-0.19	0.03
68.70	-25.25	-1.70	0.00	-98.20	0.00	98.20	1,997.21	475.53	1,208	1,092.40	1.46	-0.20	0.03
68.70	-25.25	-1.70	0.00	-98.20	0.00	98.20	1,997.21	475.53	1,208	1,092.40	1.46	-0.20	0.05
70.00	-23.98	-1.68	0.00	-95.98	0.00	95.98	1,982.10	471.93	1,190	1,075.84	1.51	-0.20	0.05
73.50	-23.56	-1.67	0.00	-90.12	0.00	90.12	1,473.96	377.74	953	802.32	1.67	-0.22	0.05
75.00	-22.33	-1.64	0.00	-87.62	0.00	87.62	1,466.28	374.42	936	791.05	1.74	-0.23	0.05
80.00	-21.22	-1.61	0.00	-79.44	0.00	79.44	1,440.00	363.35	882	753.69	1.99	-0.25	0.05
85.00	-20.11	-1.57	0.00	-71.41	0.00	71.41	1,412.68	352.28	829	716.65	2.26	-0.27	0.05
90.00	-19.01	-1.53	0.00	-63.55	0.00	63.55	1,384.32	341.21	777	679.98	2.56	-0.30	0.04
95.00	-17.92	-1.48	0.00	-55.90	0.00	55.90	1,354.92	330.14	728	643.72	2.89	-0.32	0.04
100.00	-17.06	-1.44	0.00	-48.49	0.00	48.49	1,324.47	319.08	680	607.94	3.23	-0.34	0.03
104.00	-16.36	-1.41	0.00	-42.71	0.00	42.71	1,299.37	310.22	643	579.69	3.53	-0.36	0.03
105.00	-15.72	-1.37	0.00	-41.31	0.00	41.31	1,292.99	308.01	634	572.68	3.60	-0.36	0.03
108.00	-15.28	-1.35	0.00	-37.19	0.00	37.19	1,265.73	301.36	607	548.38	3.83	-0.37	0.03
110.00	-15.09	-1.34	0.00	-34.49	0.00	34.49	1,247.13	296.94	589	532.29	3.99	-0.38	0.03
110.00	-15.09	-1.34	0.00	-34.49	0.00	34.49	853.24	223.36	444	366.34	3.99	-0.38	0.03
111.00	-13.32	-1.23	0.00	-33.16	0.00	33.16	849.67	221.70	438	362.07	4.07	-0.38	0.03
115.00	-12.43	-1.17	0.00	-28.25	0.00	28.25	834.99	215.06	412	345.06	4.39	-0.39	0.03
118.60	-12.20	-1.15	0.00	-24.04	0.00	24.04	821.22	209.09	389	329.85	4.69	-0.40	0.02
119.13	-11.95	-1.14	0.00	-23.43	0.00	23.43	819.14	208.21	386	327.62	4.74	-0.41	0.02
120.00	-11.66	-1.11	0.00	-22.44	0.00	22.44	815.71	206.76	381	323.96	4.81	-0.41	0.01
121.00	-10.85	-1.05	0.00	-21.33	0.00	21.33	811.73	205.10	375	319.77	4.90	-0.41	0.01
121.00	-10.85	-1.05	0.00	-21.33	0.00	21.33	811.73	205.10	375	319.77	4.90	-0.41	0.02
124.50	-10.76	-1.05	0.00	-17.64	0.00	17.64	797.47	199.29	354	305.16	5.20	-0.41	0.02
124.50	-10.76	-1.05	0.00	-17.64	0.00	17.64	797.47	199.29	354	305.16	5.20	-0.41	0.07
125.00	-10.50	-1.03	0.00	-17.11	0.00	17.11	795.39	198.46	351	303.09	5.24	-0.41	0.07
127.00	-9.01	-0.91	0.00	-15.05	0.00	15.05	786.97	195.14	339	294.81	5.42	-0.43	0.06
130.00	-7.71	-0.80	0.00	-12.32	0.00	12.32	774.02	190.16	322	282.49	5.70	-0.46	0.05
135.00	-7.40	-0.78	0.00	-8.30	0.00	8.30	751.62	181.86	294	262.21	6.20	-0.49	0.04
140.00	-4.21	-0.47	0.00	-4.40	0.00	4.40	728.18	173.55	268	242.31	6.72	-0.51	0.02
144.00	-4.02	-0.45	0.00	-2.54	0.00	2.54	701.03	166.91	248	224.25	7.16	-0.52	0.02
145.00	-3.79	-0.42	0.00	-2.09	0.00	2.09	694.06	165.25	243	219.78	7.27	-0.53	0.02
149.00	-3.57	-0.40	0.00	-0.40	0.00	0.40	666.17	158.61	224	202.37	7.71	-0.53	0.01
150.00	0.00	-0.37	0.00	0.00	0.00	0.00	659.19	156.95	219	198.13	7.82	-0.53	0.00

ASSET: 302489, Enfd - Enfield
CUSTOMER: AT&T MOBILITY

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

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	30.41	0.00	72.33	0.00	0.00	3490.74	124.50	0.96
0.9D + 1.0W Normal	30.37	0.00	54.23	0.00	0.00	3425.33	124.50	0.93
1.2D + 1.0Di + 1.0Wi Normal	27.98	0.00	108.69	0.00	0.00	3018.20	124.50	0.74
1.2D + 1.0Ev + 1.0Eh Normal	1.88	0.00	71.95	0.00	0.00	227.94	124.50	0.08
0.9D - 1.0Ev + 1.0Eh Normal	1.85	0.00	50.19	0.00	0.00	222.83	124.50	0.07
1.0D + 1.0W Service Normal	7.27	0.00	60.32	0.00	0.00	826.87	124.50	0.24

ADDITIONAL STEEL SUMMARY

Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors				Max member		
			VQ/I	Shear Applied (kips)	Shear (phiVn) (kips)	Ratio	Pu (kip)	PhiPn (kip)	Ratio
0.00	23.60	SOL #20 All Thread Bar	228.2	6.2	16.8	0.3665	286.8	334.7	0.8567
0.00	121.00	SOL #20 All Thread Bar	507.6	13.7	16.8	0.8153	293.6	314.9	0.9325
23.60	68.70	SOL #20 All Thread Bar	270.7	8.1	16.8	0.4832	263.3	330.5	0.7967
119.13	124.50	SOL #20 (15 deg Offset)	490.9	14.7	16.8	0.8761	119.1	284.5	0.4187

Elev From (ft)	Elev To (ft)	Member	Upper Termination Connectors					Lower Termination Connectors				
			MQ/I	phiVn (kips)	Num Reqd	Num Actual	Ratio	MQ/I (kips)	phiVn (kip)	Num Reqd	Num Actual	Ratio
0.00	23.60	SOL #20 All Thread Bar	0	12	0	24	0.0000	0	12	0	0	0.0000
0.00	121.00	SOL #20 All Thread Bar	58.0341	12	5	10	0.4836	0	12	0	0	0.0000
23.60	68.70	SOL #20 All Thread Bar	195.9027	12	17	24	0.6802	0	12	0	0	0.0000
119.13	124.50	SOL #20 (15 deg Offset)	98.6486	12	9	12	0.6851	79.3496	12	7	12	0.5510

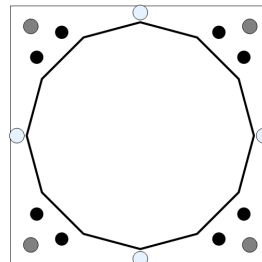
ASSET: 302489, Enfd - Enfield
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
ENG NO: 13753208

BASE PLATE ANALYSIS @ 0 FT

PLATE PARAMETERS (ID# 15518)

Width: 44 in
Shape: Square
Thickness: 2.5 in
Grade: A572-60
Yield Strength: 60 ksi
Tensile Strength: 75 ksi
Clip Length: 0 in
Rod Detail Type: c
Clear Distance: - in
Base Weld Size: 0.125 in
Orientation Offset: - °
Analysis Type: Elastic
Neutral Axis: 308 °



ANCHOR ROD PARAMETERS

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	Fy (ksi)	Fu (ksi)	Spacing (in)	Offset (°)
Original [ID# 15887]	Cluster	8	2.25	44	A615-75	75	100	6	-
Bypass [ID# 15886]	Radial	4	2.5	52.4	A615-75	75	100	-	45

DYWIDAG BAR PARAMETERS

Quantity	Bar Size	Bar Diameter (in)	Fy (ksi)	Fu (ksi)	Bracket Type	Bracket Offset (in)	Circle (in)	Offset (°)
4 [ID# 937]	#20	2.5	80	100	Angle	2.19	44.26	-

ANCHOR ROD GEOMETRY AND APPLIED LOADS --- ORIGINAL (8) 2.25"Ø [ID 15887]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in ⁴)	Axial Load (k)	Shear Load (k)
1	0.649	17.53	13.30	20.685	1390.482	178.48	0.10
2	0.922	13.30	17.53	20.000	1299.909	172.67	1.74
3	2.220	-13.30	17.53	0.294	1.119	5.62	6.80
4	2.493	-17.53	13.30	-5.289	91.692	-41.70	6.57
5	3.791	-17.53	-13.30	-20.685	1390.482	-172.21	0.10
6	4.063	-13.30	-17.53	-20.000	1299.909	-166.40	1.74
7	5.361	13.30	-17.53	-0.294	1.119	0.65	6.80
8	5.634	17.53	-13.30	5.289	91.692	47.97	6.57

ASSET: 302489, Enfd - Enfield
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
ENG NO: 13753208

ANCHOR ROD GEOMETRY AND APPLIED LOADS --- BYPASS (4) 2.5"Ø [ID 15886]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in ⁴)	Axial Load (k)	Shear Load (k)
1	2.356	-18.53	18.53	-3.193	42.041	-20.47	0.00
2	3.927	-18.53	-18.53	-26.005	2705.459	-200.07	0.00
3	5.498	18.53	-18.53	3.193	42.041	29.81	0.00
4	0.785	18.53	18.53	26.005	2705.459	209.41	0.00

DYWIDAG BAR GEOMETRY AND APPLIED LOADS --- (4) #20 [ID 937]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in ⁴)	Axial Load (k)
1	1.571	0.00	22.13	13.625	913.124	236.87
2	3.142	-22.13	0.00	-17.439	1494.702	-286.90
3	4.712	0.00	-22.13	-13.625	913.124	-222.58
4	6.283	22.13	0.00	17.439	1494.702	301.18

REACTION DISTRIBUTION

Component	ID	Moment Mu (k-ft)	Axial Load Pu (k)	Shear Vu (k)	Moment Factor
Pole	37.38"Ø x 0.375" (12 Sides)	1210.7	72.33	30.41	0.347
Bolt Group	Original (8) 2.25"Ø	1210.7	-	30.41	0.347
Bolt Group	Bypass (4) 2.5"Ø	901.6	-	0.00	0.258
Dywidag Group	(4) #20	1378.4	-	-	0.395
TOTALS		3490.74	72.33	30.41	

COMPONENT PROPERTIES

Component	ID	Gross Area (in ²)	Net Area (in ²)	Individual Inertia (in ⁴)	Moment of Inertia (in ⁴)	Threads/in
Pole	37.38"Ø x 0.375" (12 Sides)	43.0992	-	-	7379.37	-
Bolt Group	Original (8) 2.25"Ø	3.9761	3.2477	0.8393	5566.40	4.5
Bolt Group	Bypass (4) 2.5"Ø	4.9087	3.9988	1.2725	5495.00	4.0
Dywidag Group	(4) #20	4.9087	4.9087	1.9175	4815.65	-

EXTERNAL BASE PLATE BEND LINE ANALYSIS @ 0 FT

POLE PROPERTIES

Flat-to-Flat Diameter: 37.50 in
Point-to-Point Diameter: 38.83 in
Flat Width: 10.049 in
Flat Radians: 0.524 rad

PLATE PROPERTIES

Neutral Axis: 308 °
Bend Line Lower Limit: rad
Bend Line Upper Limit: -0.179 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	24.720	0.00	38.626	560.4	2085.8	0.269
Corner	23.397	0.00	36.558	328.1	1974.2	0.166

ELASTIC ANCHOR ROD ANALYSIS								
Class	Group Quantity	Rod Diameter (in)	Applied Axial Load Pu (k)	Applied Shear Load Vu (k)	Compressive Capacity ϕPn (k)	Ratio	Interaction	
Original	8	2.25	178.5	0.1	243.6	0.733	0.733	
Bypass	4	2.5	209.4	0.0	299.9	0.698	0.698	

DYWIDAG BAR ANALYSIS						
Group Quantity	Bar Size	Bar Circle (in)	Applied Axial Load Pu (k)	Compressive Capacity ϕPn (k)	Ratio	
4	#20	44.26	301.2	368.2	0.818	

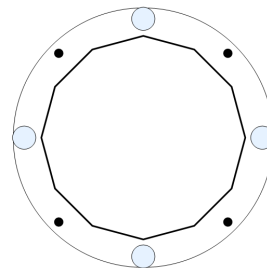
ASSET: 302489, Enfd - Enfield
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
ENG NO: 13753208

UPPER FLANGE PLATE ANALYSIS @ 110 FT

PLATE PARAMETERS (ID# 15519)

Diameter: 28 in
Shape: Round
Thickness: 1 in
Grade: A572-60
Yield Strength: 60 ksi
Tensile Strength: 75 ksi
Pole Weld Size: 0.125 in
Orientation Offset: - °
Analysis Type: Elastic
Neutral Axis: 90 °



FLANGE BOLT PARAMETERS

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	Fy (ksi)	Fu (ksi)	Spacing (in)	Offset (°)
Original [ID# 15888]	Radial	8	1	25.75	A325	92	120	-	-

DYWIDAG BAR PARAMETERS

Quantity	Bar Size	Bar Diameter (in)	Fy (ksi)	Fu (ksi)	Bracket Type	Bracket Offset (in)	Circle (in)	Offset (°)
4 [ID# 938]	#20	2.5	80	100	Angle	2.19	28.15	-

FLANGE BOLT GEOMETRY AND APPLIED LOADS --- ORIGINAL (8) 1"Ø [ID 15888]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in ⁴)	Axial Load (k)	Shear Load (k)
1	0.785	9.10	9.10	-8.662	45.479	-24.18	3.13
2	1.571	0.00	12.88	0.000	0.029	0.62	4.43
3	2.356	-9.10	9.10	8.662	45.479	25.42	3.13
4	3.142	-12.88	0.00	12.250	90.929	35.69	0.00
5	3.927	-9.10	-9.10	8.662	45.479	25.42	3.13
6	4.712	0.00	-12.88	0.000	0.029	0.62	4.43
7	5.498	9.10	-9.10	-8.662	45.479	-24.18	3.13
8	6.283	12.88	0.00	-12.250	90.929	-34.45	0.00

DYWIDAG BAR GEOMETRY AND APPLIED LOADS --- (4) #20 [ID 938]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in ⁴)	Axial Load (k)
1	1.571	0.00	14.07	0.000	1.917	3.55
2	3.142	-14.07	0.00	14.074	974.228	177.71
3	4.712	0.00	-14.07	0.000	1.917	3.55
4	6.283	14.07	0.00	-14.074	974.228	-170.61

ASSET: 302489, Enfd - Enfield
CUSTOMER: AT&T MOBILITY

CODE: ANSI/TIA-222-H
ENG NO: 13753208

REACTION DISTRIBUTION

Component	ID	Moment Mu (k-ft)	Axial Load Pu (k)	Shear Vu (k)	Moment Factor
Pole	21.268"Ø x 0.1875" (12 Sides)	143.3	19.16	21.37	0.259
Bolt Group	Original (8) 1"Ø	143.3	-	21.37	0.259
Dywidag Group	(4) #20	410.1	-	-	0.741
TOTALS		553.42	19.16	21.37	

COMPONENT PROPERTIES

Component	ID	Gross Area (in ²)	Net Area (in ²)	Individual Inertia (in ⁴)	Moment of Inertia (in ⁴)	Threads/in
Pole	21.268"Ø x 0.1875" (12 Sides)	12.2761	-	-	682.06	-
Bolt Group	Original (8) 1"Ø	0.7854	0.6057	0.0292	363.83	8.0
Dywidag Group	(4) #20	4.9087	4.9087	1.9175	1952.29	-

EXTERNAL UPPER FLANGE PLATE BEND LINE ANALYSIS @ 110 FT

POLE PROPERTIES

Flat-to-Flat Diameter: 21.39 in
Point-to-Point Diameter: 22.15 in
Flat Width: 5.732 in
Flat Radians: 0.524 rad

PLATE PROPERTIES

Neutral Axis: 90 °
Bend Line Lower Limit: 2.570 rad
Bend Line Upper Limit: 3.713 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	17.000	0.00	4.250	55.4	229.5	0.242
Corner	16.004	0.00	4.001	42.0	216.1	0.194
Circumferential	21.079	0.00	5.270	42.0	284.6	0.148

ELASTIC FLANGE BOLT ANALYSIS

Class	Group Quantity	Bolt Diameter (in)	Applied Axial Load Pu (k)	Applied Shear Load Vu (k)	Compressive Capacity φPn (k)	Ratio	Interaction
Original	8	1	35.7	0.0	54.5	0.655	0.655

DYWIDAG BAR ANALYSIS

Group Quantity	Bar Size	Bar Circle (in)	Applied Axial Load Pu (k)	Compressive Capacity φPn (k)	Ratio
4	#20	28.15	177.7	368.2	0.483

Monolithic Mat Foundation Analysis (ANSI/TIA-222-H)

Foundation & Tower Parameters

Ignore Mat Rebar?		N	
Ignore Pier Rebar?		N	
Foundation has Pier(s)?		Y	
Pier Shape		Round	
Pier Diameter	D	5	ft
Pier Height Above Ground	h	0.5	ft
Pier Length	l	5.5	ft
Mat Base Depth	$l+T-h$	8	ft
Mat Length	L	18	ft
Mat Width	W	18	ft
Mat Thickness	T	3	ft
Unit Weight of Concrete		150	pcf
Tower Eccentricity	ecc	0	ft
Tower Face Width	FW	3.12	ft
Tower Leg Count		1	

Soil Parameters

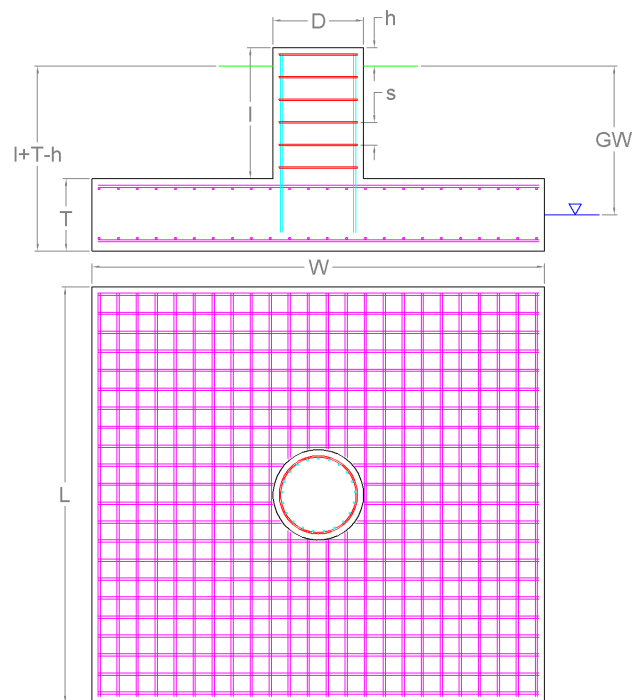
Water Table Depth [BGL]	GW	-	ft
Unit Weight of Soil		115	pcf
Unit Weight of Soil [Submerged]		52.6	pcf
Shear Friction Coefficient		0.3	
Ultimate Bearing Pressure		24,000	psf
Bearing Pressure Type		Gross	
Conical Failure Angle		15	°
Capacity Increase (Transient Loads)		1.00	
Soil Strength Reduction Factor, ϕ_s		0.75	
Dead Load Factor		1.2	

Soil Capacities

Design Moment, M_u	3,749.22	k-ft
Nominal Moment Capacity, $\phi_m M_n$	4,477.2	k-ft
$M_u / \phi_s M_n$	83.7%	
Net Bearing Pressure	7,718	k
Nominal Bearing Capacity, $\phi_b P_n$	18,000	k
Bearing Pressure Controlling Load Direction	Parallel to Pad Edge	
$P_u / \phi_s P_n$	42.9%	
Ultimate Friction Resistance	116.19	k
Ultimate Passive Pressure Resistance	40.36	k
Nominal Shear Capacity, $\phi_s V_n$	117.41	k
$V_u / \phi_s V_n$	26.0%	

Reactions

Moment, M_u	3,490.74	k-ft
Shear, V_u	30.41	k
Axial, P_u	72.33	k
Uplift, T_u	0	k
Tower Weight	60.33	k
Tower Dead Load Factor	1.2	



Mat Reinforcement Parameters		
Concrete Compressive Strength, f'_c	3,000	psi
Mat Rebar Quantity [Lower]	34	
Mat Rebar Size # [Lower]	10	
Mat Single Rebar Area [Lower]	1.27	in ²
Mat Rebar Quantity [Upper]	34	
Mat Rebar Size # [Upper]	10	
Mat Single Rebar Area [Upper]	1.27	in ²
Mat Rebar Yield Strength, F_y	60	ksi
Mat Clear Cover	3	in
Bending Reduction Factor, ϕ_B	0.9	
Shear Reduction Factor, ϕ_V	0.75	
Compression Reduction Factor, ϕ_C	0.65	
Steel Elastic Modulus	29,000	ksi

Mat Reinforcement Capacities		
Compression Zone Factor, β_1	0.85	
Lower Reinforcement Spacing	6.34	in
Upper Reinforcement Spacing	6.34	in
One Way Design Shear, V_u	464.34	k
One Way Shear Capacity, ϕV_c	563.44	k
One Way Shear Controlling Load Direction	Parallel to Pad Edge	
$V_u / \phi V_c$	82.4%	
Punching Design Shear Stress, v_u	65.46	psi
Punching Shear Capacity, $\phi_c V_n$	164.32	psi
$v_u / \phi_c V_n$	39.8%	
Moment Transfer Effective Flexural Width, ℓ	14	in
Neutral Axis Depth	4.89	In
Moment Transfer Flexural Capacity, $\phi M_{sc,f}$	55,918.16	k-in
$\gamma_f M_{sc} / \phi M_{sc,f}$	0.0%	
Flexure Due to Soil Pressure, M_u	2,536.2	k-ft
Lower Steel Mat Moment Capacity, ϕM_n	6,489.83	k-ft
Flexural Steel Controlling Load Direction	Diagonal to Pad Edge	
$M_u / \phi M_n$	39.1%	
Flexure Due to Uplift, M_u	389.76	k-ft
Upper Steel Mat Moment Capacity, ϕM_n	5,780.9	k-ft
$M_u / \phi M_n$	6.7%	

Pier Reinforcement Parameters		
Concrete Compressive Strength (f'_c)	3,000	psi
Pier Rebar Quantity	52	
Pier Rebar Size #	11	
Pier Single Rebar Area	1.56	in ²
Pier Rebar Yield Strength (F_y)	60	ksi
Tie Rebar Size #	4	
Tie Rebar Area (Single)	0.2	in ²
Tie Rebar Spacing	12	in
Tie Rebar Yield Strength (F_y)	60	ksi
Rebar Cage Diameter	51.62	in

Pier Reinforcement Capacities		
Design Moment (M_u)	3,658	k-ft
Nominal Moment Capacity ($\phi_B M_n$)	9,214.44	k-ft
$M_u / \phi_B M_n$	39.7%	
Design Shear (V_u)	30.41	k
Nominal Shear Capacity ($\phi_V V_n$)	307.27	k
$V_u / \phi_V V_n$	9.9%	
Design Compression (P_u)	72.33	k
Nominal Compression Capacity ($\phi_P P_n$)	3,690.28	k
$P_u / \phi_P P_n$	2.0%	
Pier Reinforcement Ratio	0.001	-
$M_u / \phi_B M_n + T_u / \phi_T T_n$	39.7%	





AMERICAN TOWER®
C O R P O R A T I O N

Mount Analysis Report

ATC Site Name : Enfd - Enfield, CT
ATC Site Number : 302489
Engineering Number : 13753208_C8_01
Mount Elevation : 151.5 ft
Carrier : AT&T Mobility
Carrier Site Name : MRCTB056379
Carrier Site Number : CTL01021
Site Location : 77 Town Farm Road
Enfield, CT 06082-5152
41.96591325 , -72.55271225
County : Hartford
Date : February 16, 2022
Max Usage : 76%
Result : Contingent Pass

Prepared By:
Max Carter
Structural Engineer I

Max Carter

Reviewed By:



COA: PEC.0001553



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Introduction	1
Supporting Documents	1
Analysis	1
Conclusion	1
Application Loading.....	2
Structure Usages.....	2
Mount Layout	3
Equipment Layout	4
Standard Conditions.....	8
Calculations	Attached

Introduction

The purpose of this report is to summarize results of the mount analysis performed for AT&T Mobility at 151.5 ft.

Supporting Documents

Specifications Sheet	Site Pro 1 RMQP-4xx, dated July 9, 2015
Site Specific Study	Project #10034985, dated April 24, 2019
Radio Frequency Data Sheet	RFDS ID #CTL01021, dated January 27, 2022
Reference Photos	Site photos from 2019

Analysis

This mount was analyzed using American Tower Corporation's Mount Analysis Program and RISA-3D

Basic Wind Speed:	116 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	77 mph (3-Second Gust) w/ 1 13/20" radial ice concurrent
Codes:	ANSI/TIA-222-H
Exposure Category:	C
Risk Category:	II
Topographic Factor Procedure:	Method 3
Topographic Category:	1
Spectral Response:	$S_s = 0.174$, $S_1 = 0.055$
Site Class:	D - Stiff Soil
Live Loads:	$L_m = 500$ lbs

* Wind pressures have been determined per the site-specific climatic study in accordance with ASCE 7-16 Section 26.5.3, IBC Section 1609.3, and TIA-222-H Section 2.6.6.2.3.

* Ice and concurrent wind pressures have been determined per the site-specific climatic study in accordance with ASCE 7-16 Section 10.1.1, IBC Section 1614, and TIA-222-H Section 2.6.4.1.

* Based on experience, it has been determined that the L_v load cases will not control over L_m load cases in platform mount analyses. Therefore, these load cases have been excluded from this analysis.

Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above provided the modifications listed below are completed:

- Install P2 (2.375" x 60") antenna mounting pipe (Mount Pipe M, N, and O) with Site Pro 1 SCX7-U (or approved equivalent) crossover plate kits.

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.



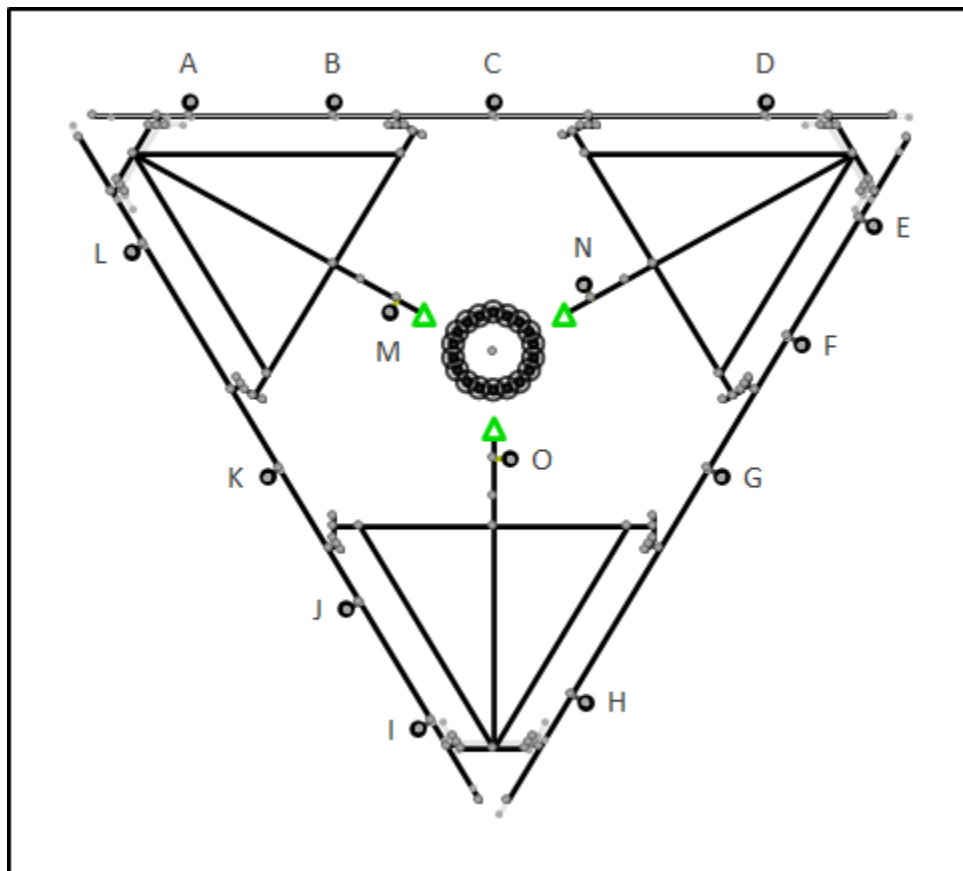
Application Loading

Mount Centerline (ft)	Equipment Centerline (ft)	Qty	Equipment Manufacturer & Model
151.5	153.0	3	Ericsson Air 6449 B77D
	151.0	3	CCI TPA65R-BU8D (87.5 lbs)
		3	CCI DMP65R-BU8D
		1	Raycap DC9-48-60-24-8C-EV
		1	Raycap DC6-48-60-18-8F ("Squid")
		1	Raycap DC6-48-60-18-8F ("Squid")
		3	Ericsson RRUS 8843 B2, B66A
		3	Ericsson RRUS 4449 B5, B12
		3	Ericsson RRUS 4478 B14
		3	Ericsson RRUS 32 B30
	149.0	3	Ericsson AIR 6419 B77G

Structure Usages

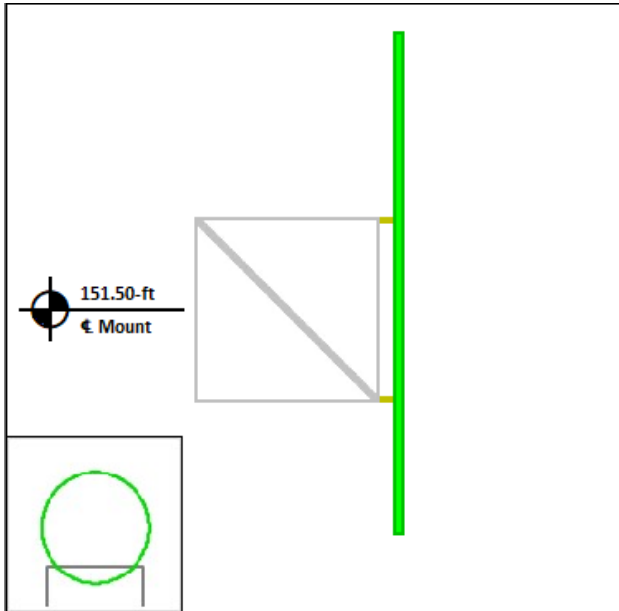
Structural Component	Controlling Usage	Pass/Fail
Horizontals	76%	Pass
Tie-Backs	25%	Pass
Mount Pipes	55%	Pass
Connection Check	34%	Pass

Mount Layout

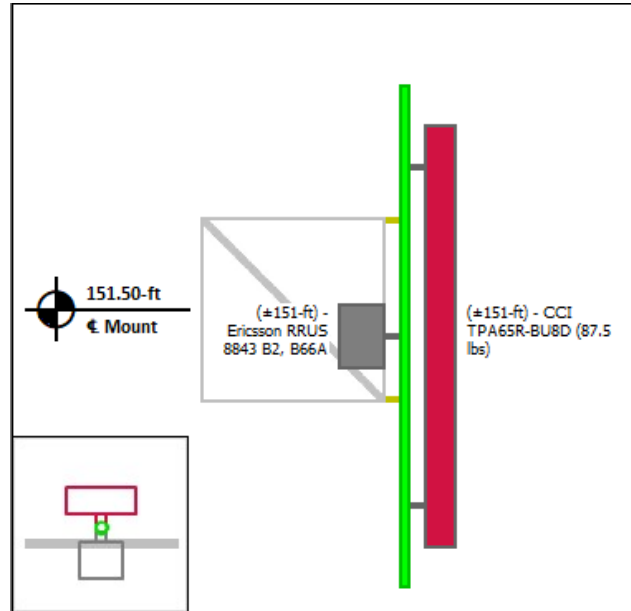


Equipment Layout

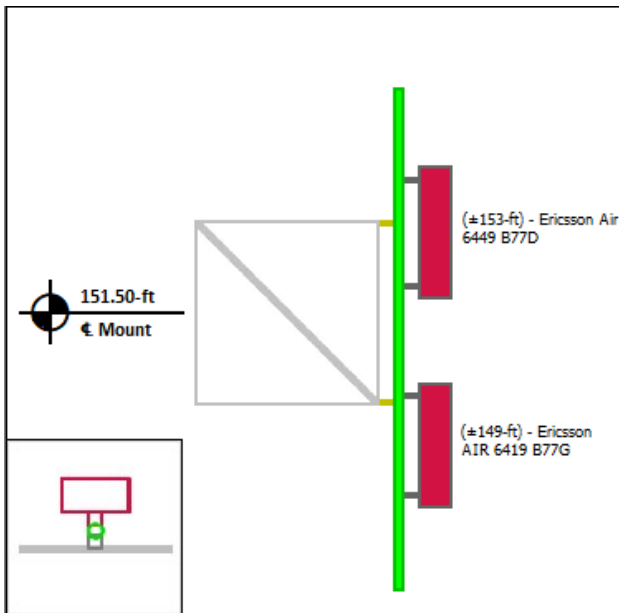
Mount Pipe A



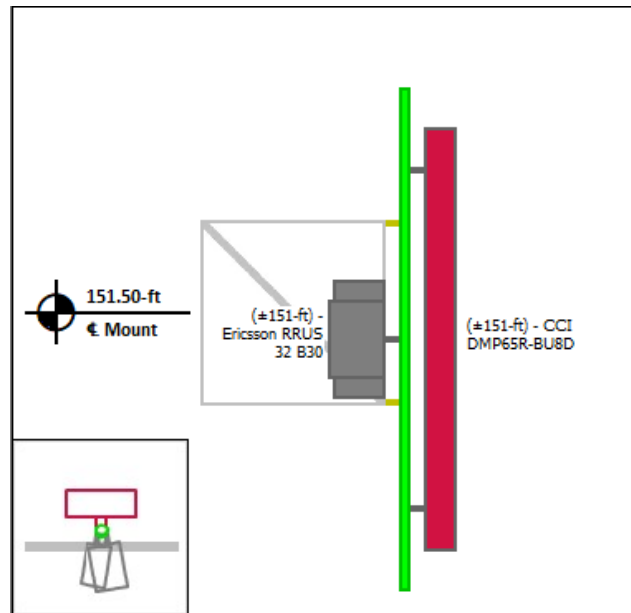
Mount Pipe B



Mount Pipe C

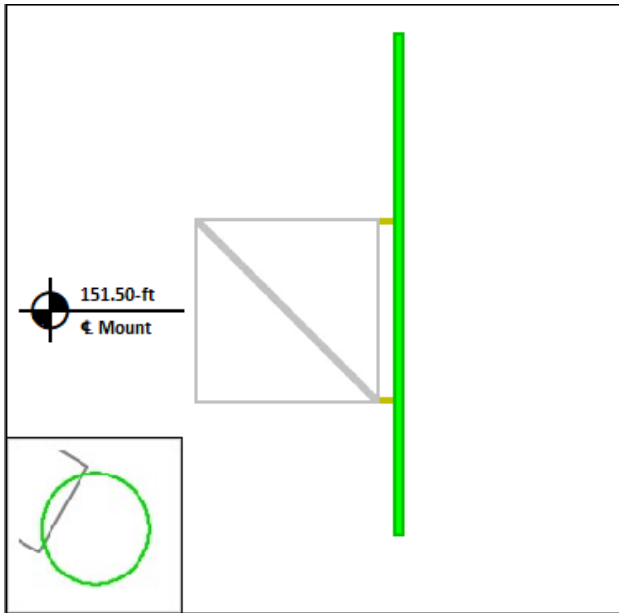


Mount Pipe D

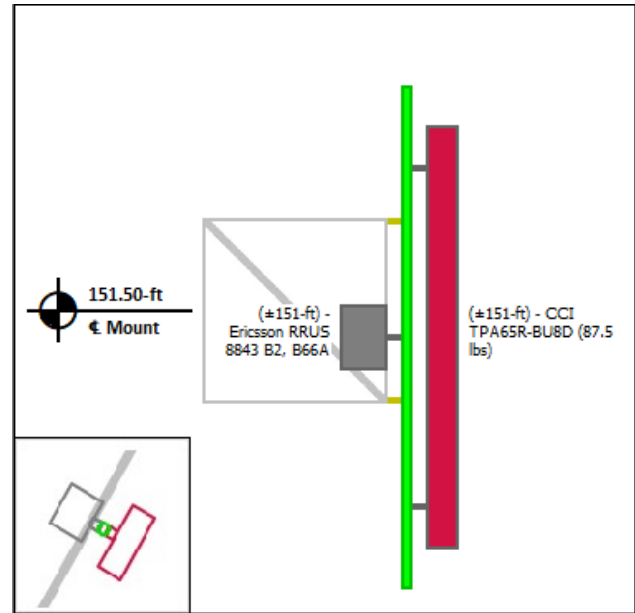


Equipment Layout Cont'd.

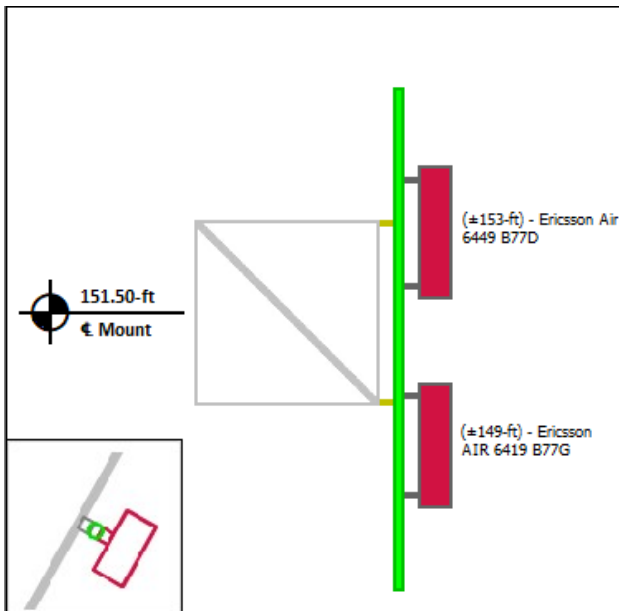
Mount Pipe E



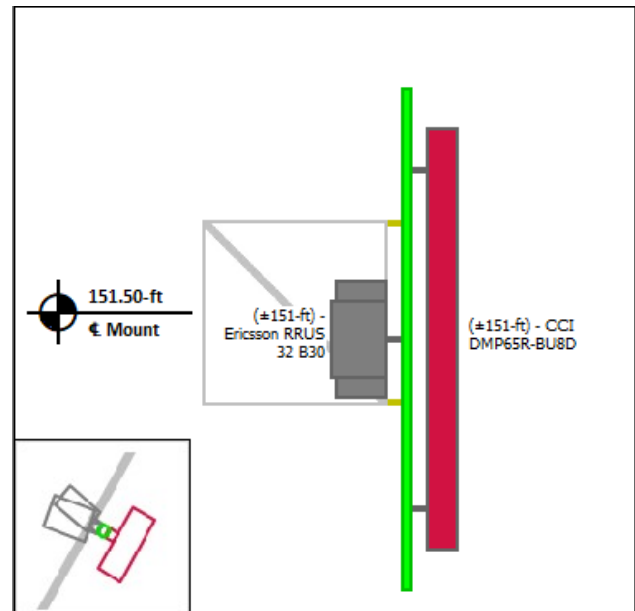
Mount Pipe F



Mount Pipe G

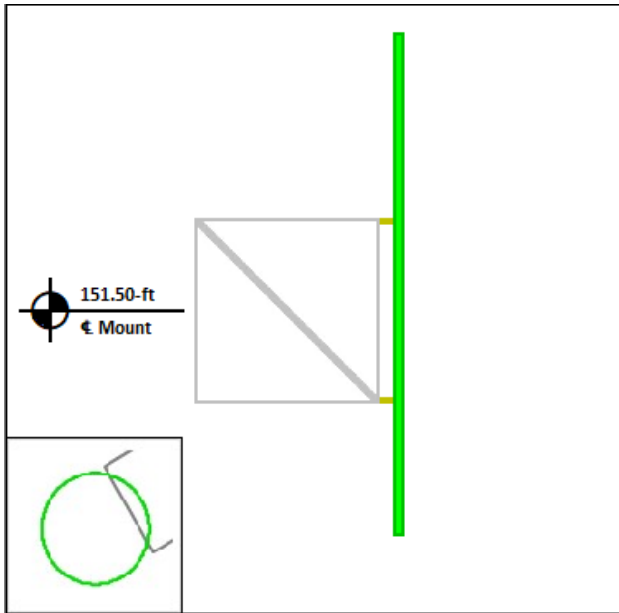


Mount Pipe H

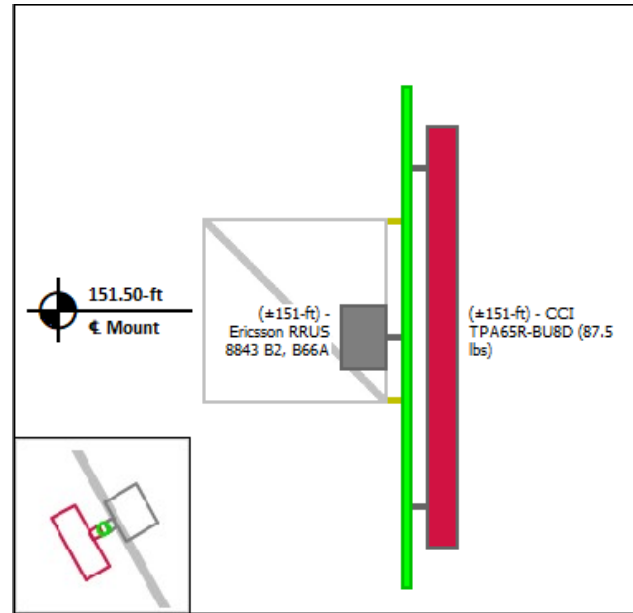


Equipment Layout Cont'd.

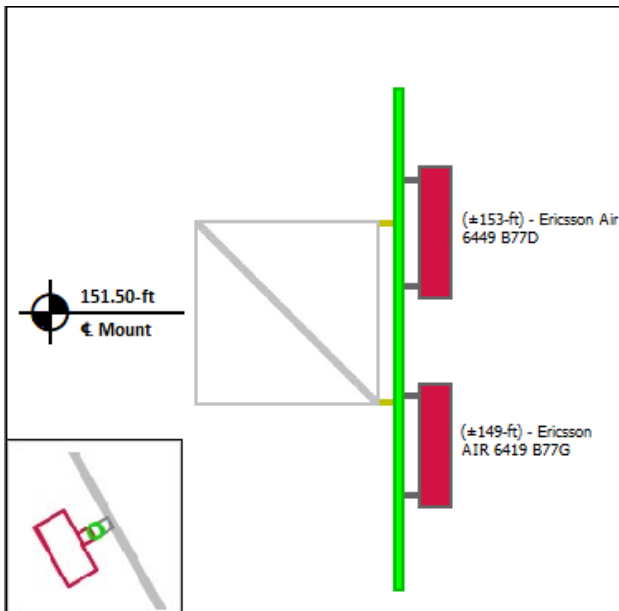
Mount Pipe I



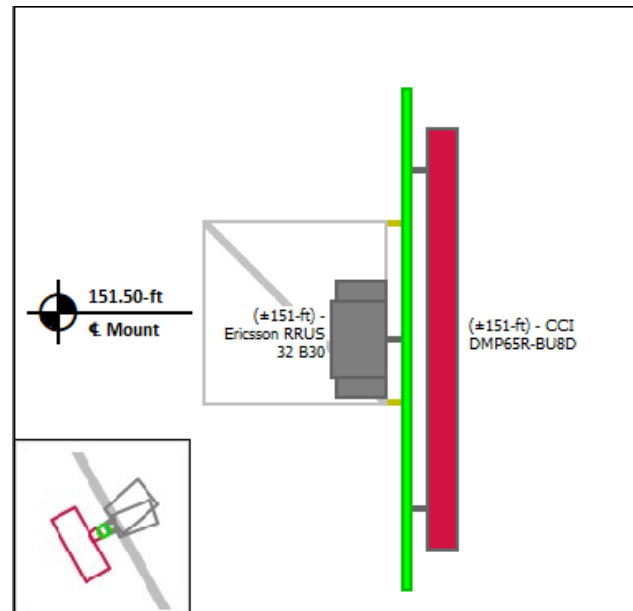
Mount Pipe J



Mount Pipe K

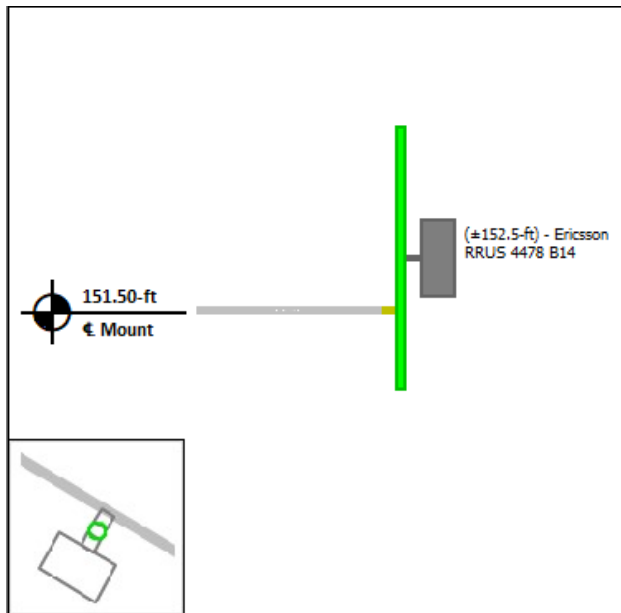


Mount Pipe L

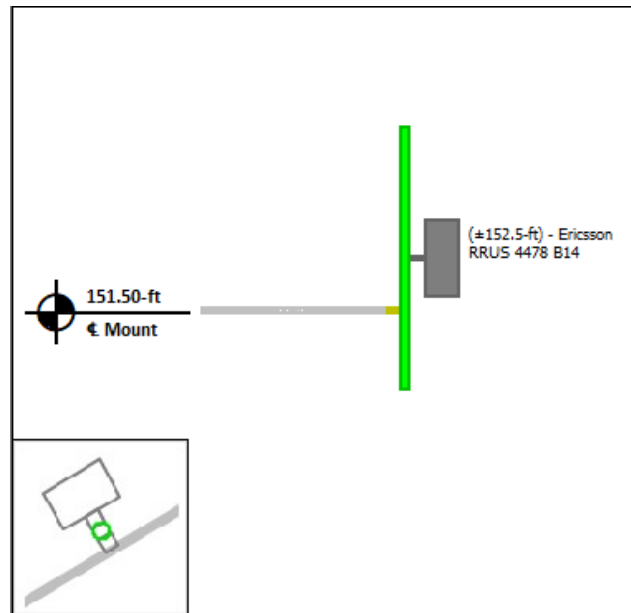


Equipment Layout Cont'd.

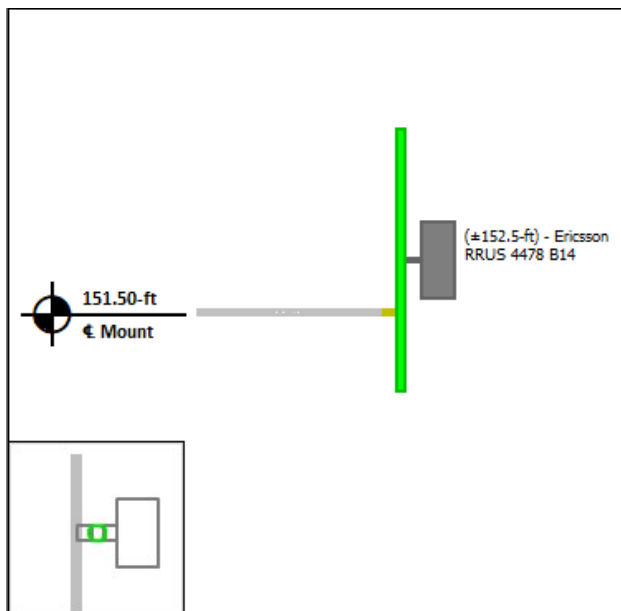
Mount Pipe M



Mount Pipe N



Mount Pipe O



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 equipment, 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.

American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

All connections are to be verified for condition and tightness by the installation contractor preceding any changes to the appurtenance mounting system and/or equipment attached to it.

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.

Installation of all equipment and steel should be confirmed not to cause tower conflicts nor impede the tower climbing pegs.

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.



Site Number: 302489
 Project Number: 13753208_C8_01
 Carrier: AT&T Mobility
 Mount Elevation: 151.5 ft
 Date: 2/16/2022

Mount Analysis Force Calculations

Wind & Ice Load Calculations			
Velocity Pressure Coefficient	K_z	1.38	
Topographic Factor	K_{zt}	1.00	
Rooftop Wind Speed-up Factor	K_s	1.00	
Shielding Factor	K_a	0.90	
Ground Elevation Factor	K_e	0.99	
Wind Direction Probability Factor	K_d	0.95	
Basic Wind Speed	V	116	mph
Velocity Pressure	q_z	44.9	psf
Height Escalation Factor	K_{iz}	1.16	
Thickness of Radial Glaze Ice	T_{iz}	1.92	in

Seismic Load Calculations			
Short Period DSRAP	S_{D5}	0.186	
1 Second DSRAP	S_{D1}	0.088	
Importance Factor	I	1.0	
Response Modification Coefficient	R	2.0	
Seismic Response Coefficient	C_s	0.093	
Amplification Factor	A	1.0	
Total Weight	W	3344.6	lbs
Total Shear Force	V_s	310.4	lbs
Horizontal Seismic Load	E_h	310.4	lbs
Vertical Seismic Load	E_v	124.2	lbs

Antenna Calculations (Elevations per Application/RFDS)*								
Equipment	Height	Width	Depth	Weight	EPA_N	EPA_T	EPA_{Ni}	EPA_{Ti}
Model #	in	in	in	lbs	sqft	sqft	sqft	sqft
Ericsson Air 6449 B77D	30.4	15.9	8.1	81.6	4.03	1.34	5.63	2.23
CCI TPA65R-BU8D (87.5 lbs)	96.0	21.0	7.8	87.5	18.09	3.12	22.26	4.84
CCI DMP65R-BU8D	96.0	20.7	7.7	95.7	17.87	3.08	22.04	4.80
Raycap DC9-48-60-24-8C-EV	31.4	18.3	10.2	16.0	N/A	N/A	N/A	N/A
Raycap DC6-48-60-18-8F ("Squid")	24.0	11.0	11.0	31.8	N/A	N/A	N/A	N/A
Raycap DC6-48-60-18-8F ("Squid")	24.0	11.0	11.0	31.8	N/A	N/A	N/A	N/A
Ericsson RRUS 8843 B2, B66A	14.9	13.2	10.9	72.0	1.64	1.35	2.66	2.30
Ericsson RRUS 4449 B5, B12	17.9	13.2	9.4	71.0	1.97	1.40	3.09	2.40
Ericsson RRUS 4478 B14	18.1	13.4	8.3	59.4	2.02	1.25	3.15	2.22
Ericsson RRUS 32 B30	27.2	12.1	7.0	60.0	2.74	1.67	4.12	2.95
Ericsson AIR 6419 B77G	28.3	16.1	7.9	66.1	3.80	1.20	5.34	2.02

* Equipment with EPA values N/A were not considered in the mount analysis

Mount-to-Tower Connection Analysis

Applied Loads from RISA 3D

Controlling Load Combination		25	
Node Label		N007	
Force in X	F _x	-1644.3	lbs
Force in Y	F _y	-994.7	lbs
Force in Z	F _z	2074.9	lbs
Moment about X	M _x	816.2	lb-ft
Moment about Y	M _y	-3157.3	lb-ft
Moment about Z	M _z	706.5	lb-ft

Bolt Shear and Tensile Capacity

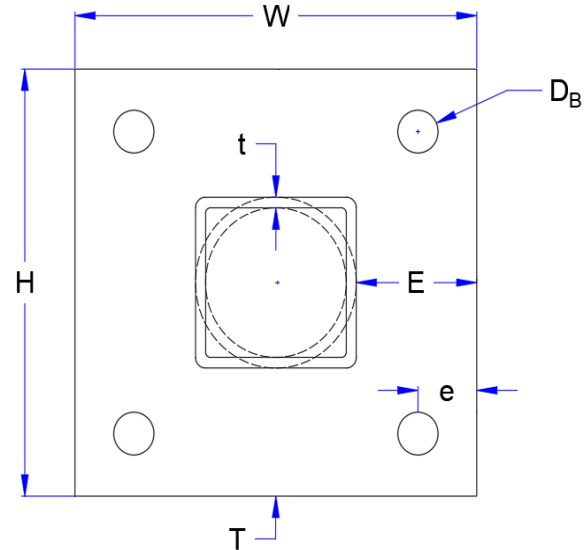
Bolt Quantity	n	4	
Bolt Diameter	D _B	5/8	in
Bolt Edge Distance	e	1	in
Bolt Grade		A325	
Bolt F _y	F _{yB}	92	ksi
Bolt F _u	F _{uB}	120	ksi
Applied Shear	V _u	0.61	k
Applied Tension	T _u	4.49	k
Tensile Strength	φT _n	20.3	k
Interaction Capacity	(T _u +V _u)/φT _n	25%	Pass

Plate Flexural Capacity

Plate Height	H	8	in
Plate Width	W	8	in
Plate Thickness	T	1/2	in
Plate Grade		A36	
Plate F _y	F _{yP}	36	ksi
Plate F _u	F _{uP}	58	ksi
Shear Capacity	φV _n	26.9	k
Applied Moment	M _u	9.0	k-in
Flexural Strength	φM _n	26.1	k-in
Flexural Capacity	M _u /φM _n	34%	Pass

Prying Action Considerations

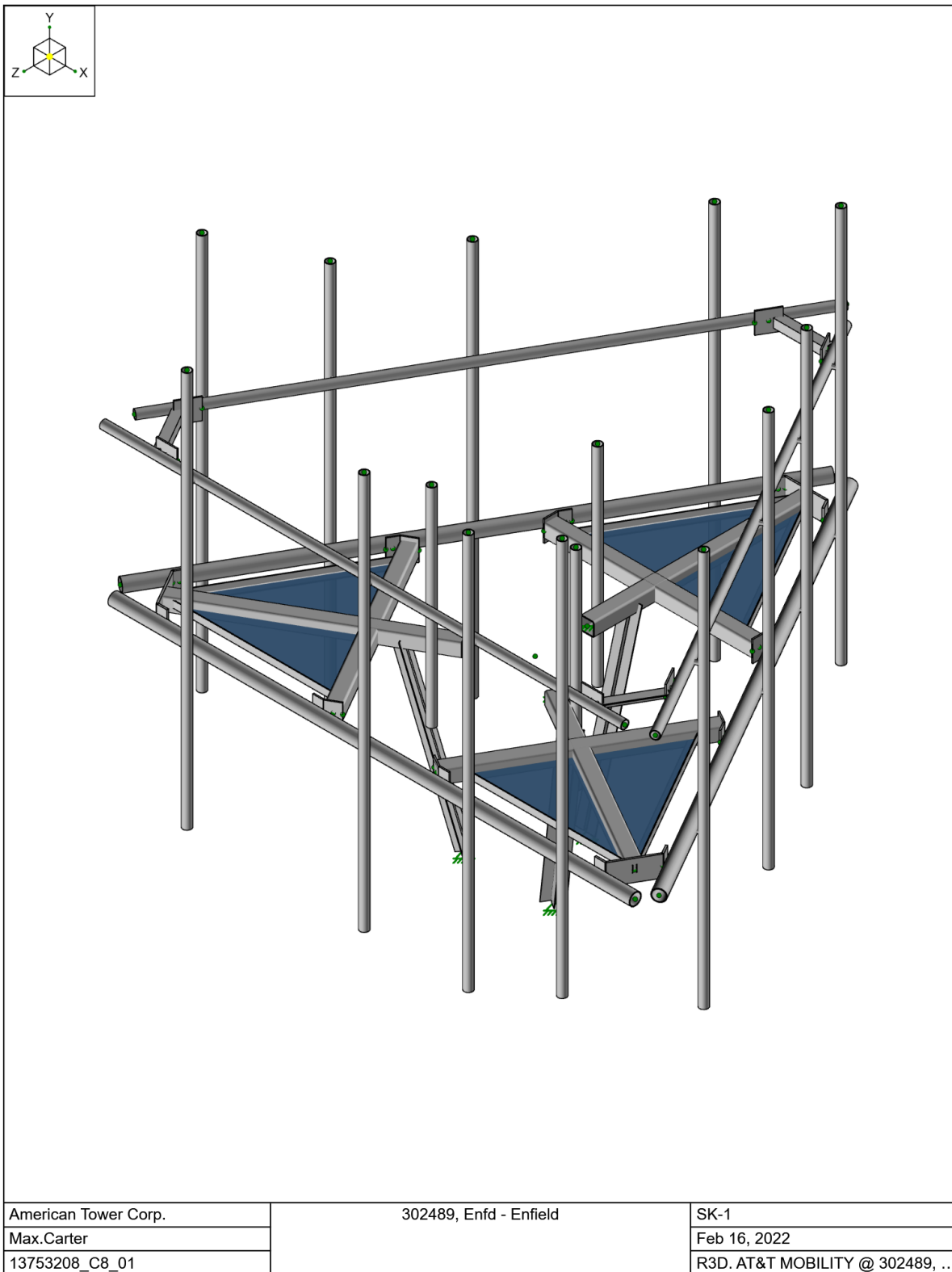
Moment Arm	b	1.00	in
Effective Moment Arm	b'	0.69	in
Tributary Length	p	2.75	in
Effective Edge Distance	a'	1.31	in

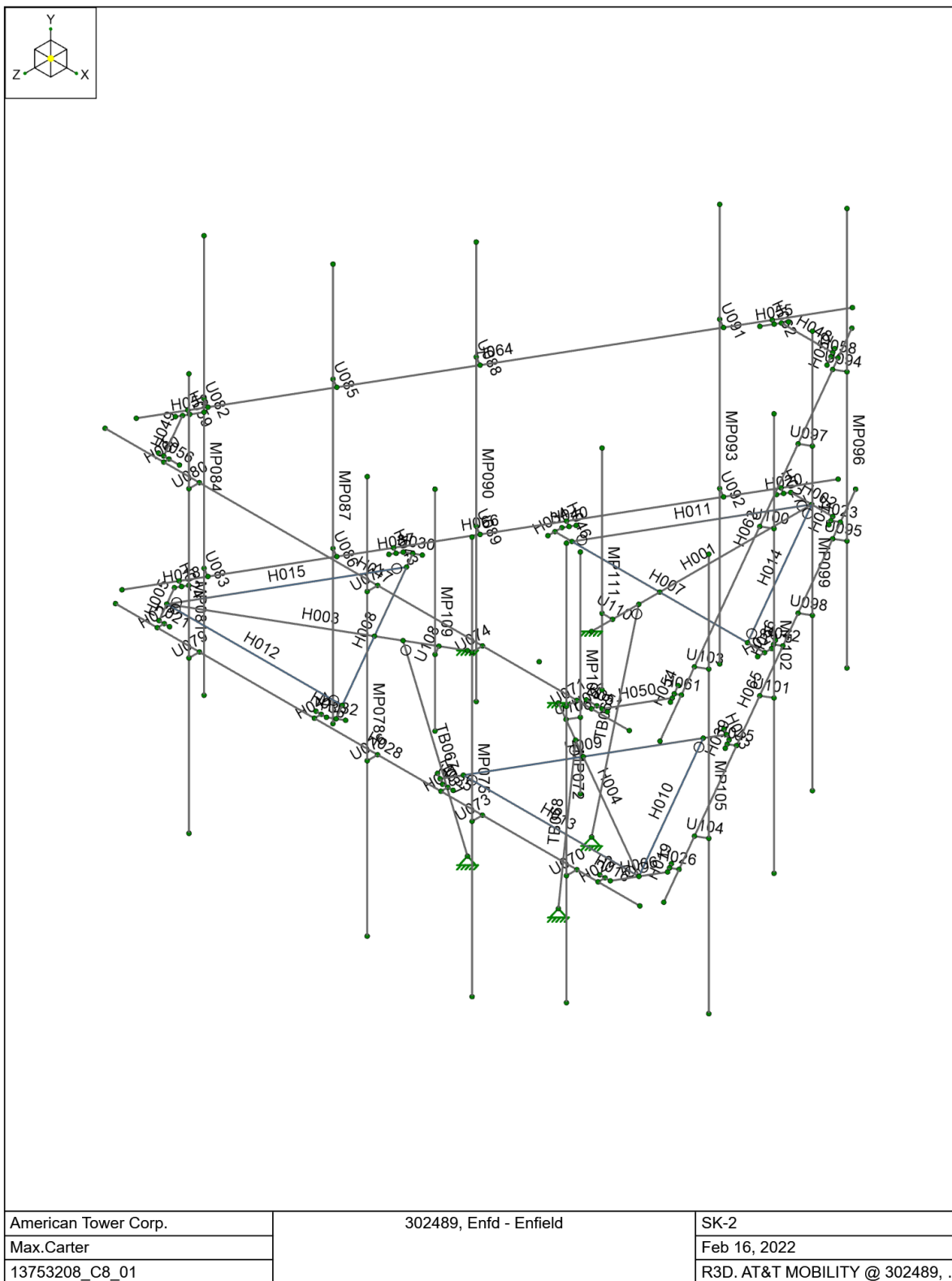


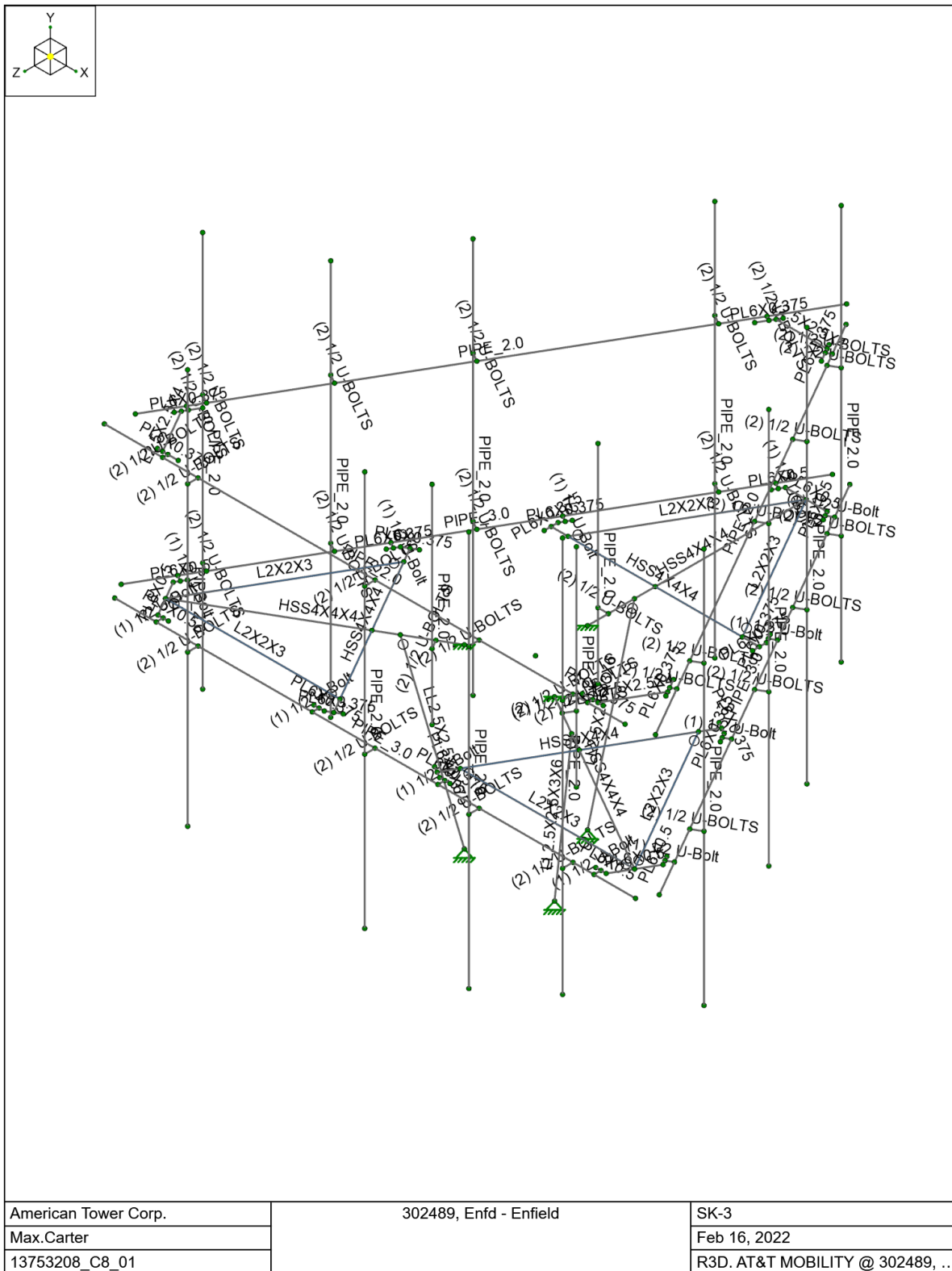
Weld and Base Metal Capacity

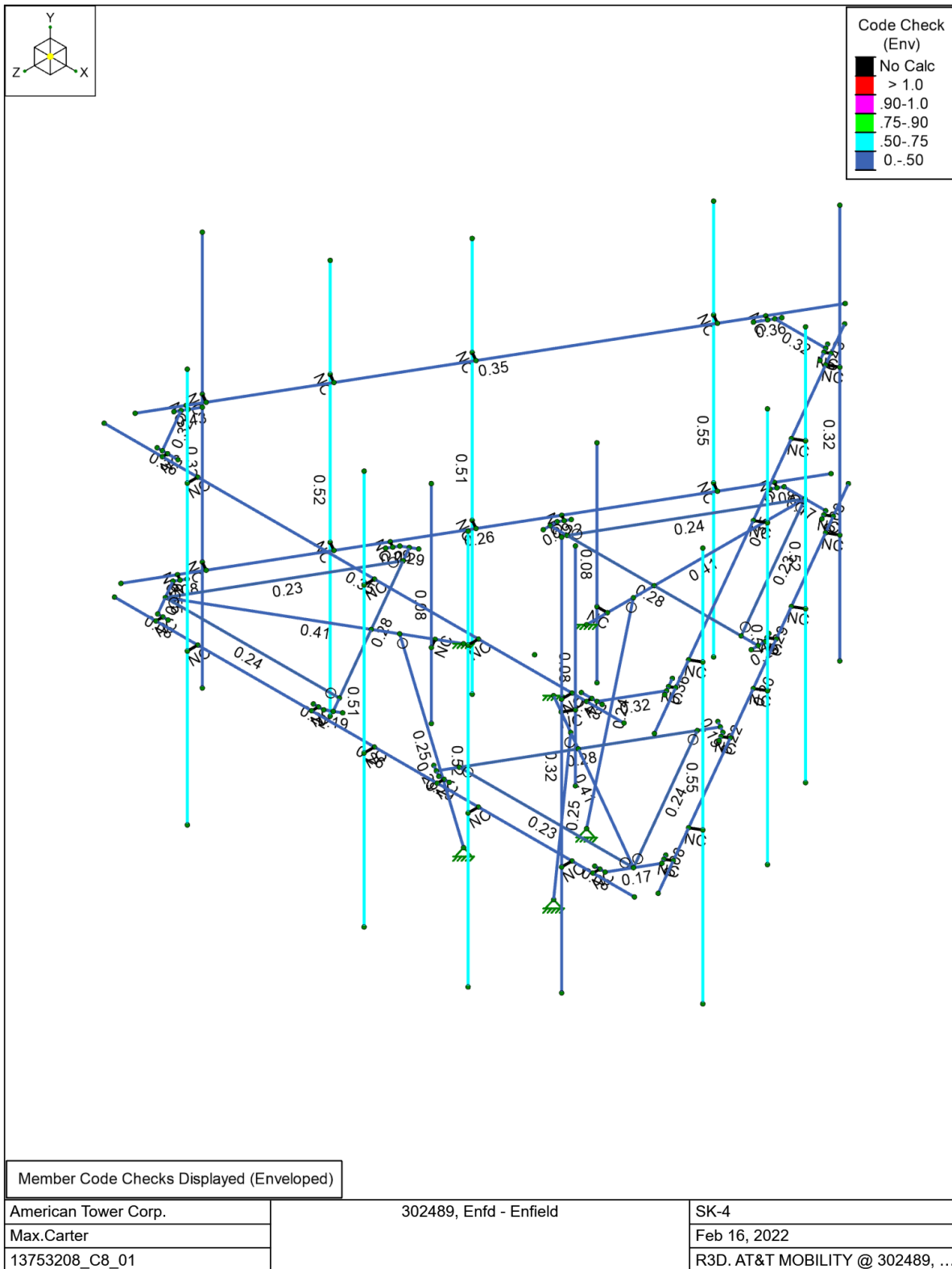
Standoff Type		Tube
Standoff Member		HSS4x4x4
Member Edge Distance	E	2 in
Member Width	w	4 in
Member Thickness	t	0.250 in
Member Grade		A53 Gr. B
Member F _y	F _{yM}	35 ksi
Member F _u	F _{uM}	60 ksi
Weld Size	a	1/4 in
Weld Length	l	16.0 in
Applied Load	P _u	9.0 k
Weld Strength	φR _n	44.5 k
Weld Capacity	P _u /φR _n	20% Pass

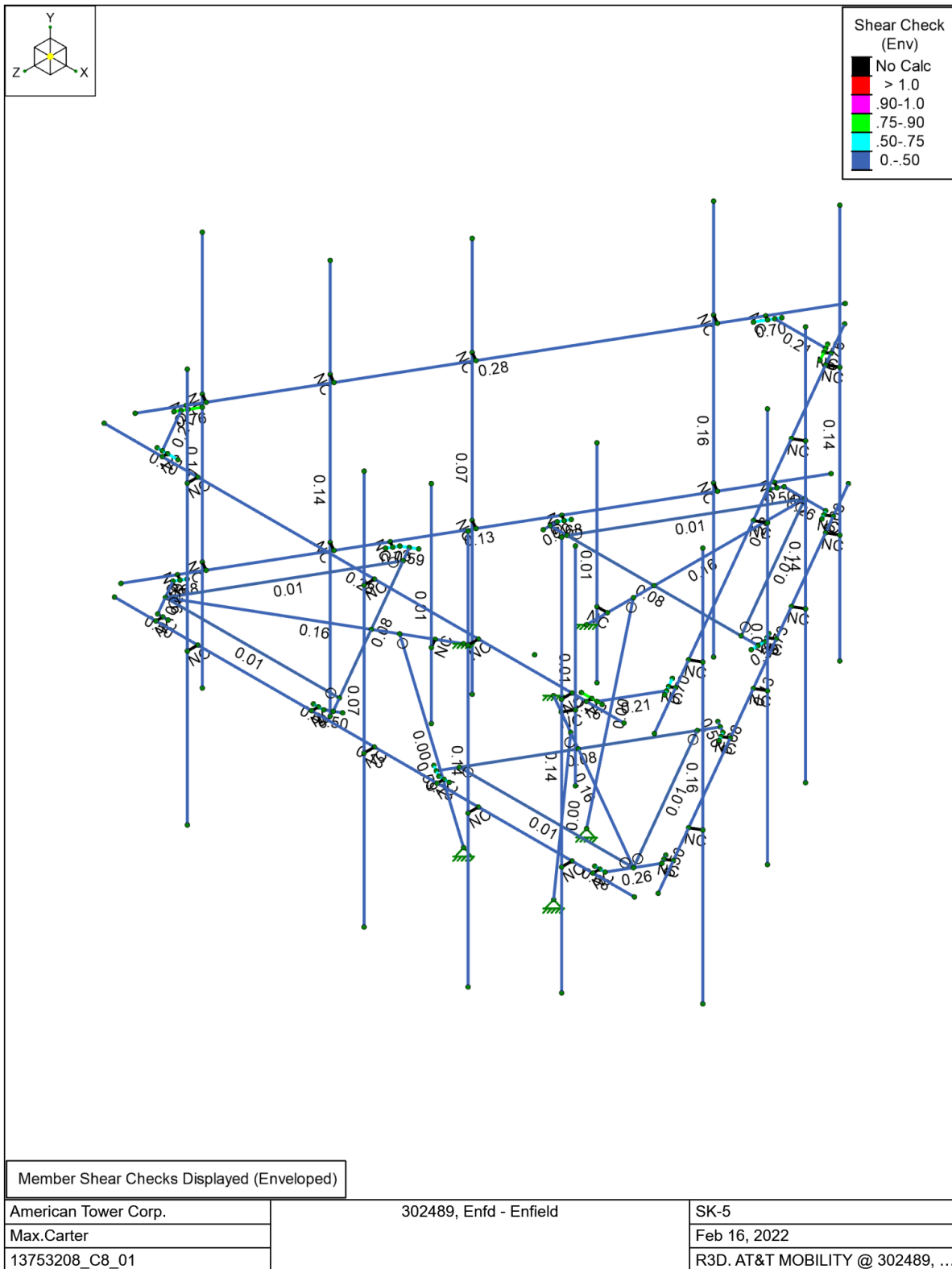
Minimum Base Metal Thickness	0.206	in
Controlling Base Metal Thickness	0.250	in
Base Metal Result		Acceptable













Company : American Tower Corp.
 Designer : Max.Carter
 Job Number : 13753208_C8_01
 Model Name : 302489, Enfd - Enfield

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Basic Load Cases

	BLC Description	Category	Y Gravity	Nodal	Point	Distributed	Surface(Plate/Wall)
1	D	DL	-1		36		
2	Di	IL			36	66	3
3	W 0	WL			36	111	
4	W 30	WL			72	222	
5	W 60	WL			72	222	
6	W 90	WL			36	114	
7	W 120	WL			72	222	
8	W 150	WL			72	222	
9	W 180	WL			36	111	
10	W 210	WL			72	222	
11	W 240	WL			72	222	
12	W 270	WL			36	114	
13	W 300	WL			72	222	
14	W 330	WL			72	222	
15	Wi 0	WL			36	111	
16	Wi 30	WL			72	222	
17	Wi 60	WL			72	222	
18	Wi 90	WL			36	114	
19	Wi 120	WL			72	222	
20	Wi 150	WL			72	222	
21	Wi 180	WL			36	111	
22	Wi 210	WL			72	222	
23	Wi 240	WL			72	222	
24	Wi 270	WL			36	114	
25	Wi 300	WL			72	222	
26	Wi 330	WL			72	222	
27	Ws 0	WL			36	111	
28	Ws 30	WL			72	222	
29	Ws 60	WL			72	222	
30	Ws 90	WL			36	114	
31	Ws 120	WL			72	222	
32	Ws 150	WL			72	222	
33	Ws 180	WL			36	111	
34	Ws 210	WL			72	222	
35	Ws 240	WL			72	222	
36	Ws 270	WL			36	114	
37	Ws 300	WL			72	222	
38	Ws 330	WL			72	222	
39	Ev -Y	ELY				66	
40	Eh -Z	ELZ				66	
41	Eh -X	ELX				66	
42	Lm (1)	LL		1			
43	Lm (2)	LL		1			
44	Lm (3)	LL		1			
45	Lm (4)	LL		1			
46	Lm (5)	LL		1			
47	Lm (6)	LL		1			
48	Lm (7)	LL		1			
49	Lm (8)	LL		1			
50	Lm (9)	LL		1			
51	Lm (10)	LL		1			
52	Lm (11)	LL		1			
53	Lm (12)	LL		1			
54	Lm (13)	LL		1			
55	Lm (14)	LL		1			



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Basic Load Cases (Continued)

BLC Description	Category	Y Gravity	Nodal	Point	Distributed	Surface(Plate/Wall)
56 Lm (15)	LL		1			

Node Boundary Conditions

Node Label	X [lb/in]	Y [lb/in]	Z [lb/in]	X Rot [k-in/rad]	Y Rot [k-in/rad]	Z Rot [k-in/rad]
1 N002	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2 N006	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3 N007	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
4 N111	Reaction	Reaction	Reaction			
5 N112	Reaction	Reaction	Reaction			
6 N113	Reaction	Reaction	Reaction			

Member Primary Data

Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1 H001	N002	N003		HSS4X4X4	Beam	None	A500 Gr. B [SQR]	Typical
2 H002	N004	N005		PL6X0.5	Beam	None	A36	Typical
3 H003	N006	N012		HSS4X4X4	Beam	None	A500 Gr. B [SQR]	Typical
4 H004	N007	N013		HSS4X4X4	Beam	None	A500 Gr. B [SQR]	Typical
5 H005	N008	N010		PL6X0.5	Beam	None	A36	Typical
6 H006	N009	N011		PL6X0.5	Beam	None	A36	Typical
7 H007	N015	N016		HSS4X4X4	Beam	None	A500 Gr. B [SQR]	Typical
8 H008	N021	N023		HSS4X4X4	Beam	None	A500 Gr. B [SQR]	Typical
9 H009	N022	N024		HSS4X4X4	Beam	None	A500 Gr. B [SQR]	Typical
10 H010	N029	N013		L2X2X3	Beam	None	A36	Typical
11 H011	N030	N003		L2X2X3	Beam	None	A36	Typical
12 H012	N025	N012		L2X2X3	Beam	None	A36	Typical
13 H013	N026	N013	270	L2X2X3	Beam	None	A36	Typical
14 H014	N027	N003	270	L2X2X3	Beam	None	A36	Typical
15 H015	N028	N012	270	L2X2X3	Beam	None	A36	Typical
16 H016	N009	N032		PL6X0.5	Beam	None	A36	Typical
17 H017	N004	N038		PL6X0.5	Beam	None	A36	Typical
18 H018	N008	N039		PL6X0.5	Beam	None	A36	Typical
19 H019	N011	N044		PL6X0.5	Beam	None	A36	Typical
20 H020	N005	N045		PL6X0.5	Beam	None	A36	Typical
21 H021	N010	N033		PL6X0.5	Beam	None	A36	Typical
22 H022	N034	N036		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
23 H023	N040	N046		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
24 H024	N041	N047		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
25 H025	N035	N037		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
26 H026	N042	N048		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
27 H027	N043	N049		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
28 H028	N017	N018		PIPE 3.0	Beam	None	A53 Gr. B	Typical
29 H029	N050	N051		PL6X0.375	Beam	None	A36	Typical
30 H030	N052	N054		PL6X0.375	Beam	None	A36	Typical
31 H031	N053	N055		PL6X0.375	Beam	None	A36	Typical
32 H032	N056	N058		PL6X0.375	Beam	None	A36	Typical
33 H033	N057	N059		PL6X0.375	Beam	None	A36	Typical
34 H034	N060	N031		PL6X0.375	Beam	None	A36	Typical
35 H035	N055	N061		PL6X0.375	Beam	None	A36	Typical
36 H036	N051	N067		PL6X0.375	Beam	None	A36	Typical
37 H037	N054	N068		PL6X0.375	Beam	None	A36	Typical
38 H038	N058	N062		PL6X0.375	Beam	None	A36	Typical
39 H039	N059	N069		PL6X0.375	Beam	None	A36	Typical
40 H040	N031	N070		PL6X0.375	Beam	None	A36	Typical



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Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
41	H041	N063	N065		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
42	H042	N071	N075		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
43	H043	N072	N076		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
44	H044	N064	N066		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
45	H045	N073	N077		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
46	H046	N074	N078		(1) 1/2 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
47	H047	N079	N080		PIPE 2.0	Beam	None	A53 Gr. B	Typical
48	H048	N085	N086	90	L2.5X2.5X4	Beam	None	A36	Typical
49	H049	N082	N083	90	L2.5X2.5X4	Beam	None	A36	Typical
50	H050	N081	N084	90	L2.5X2.5X4	Beam	None	A36	Typical
51	H051	N087	N090		PL6X0.375	Beam	None	A36	Typical
52	H052	N088	N091		PL6X0.375	Beam	None	A36	Typical
53	H053	N089	N092		PL6X0.375	Beam	None	A36	Typical
54	H054	N094	N097		PL6X0.375	Beam	None	A36	Typical
55	H055	N095	N098		PL6X0.375	Beam	None	A36	Typical
56	H056	N093	N096		PL6X0.375	Beam	None	A36	Typical
57	H057	N099	N105		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
58	H058	N100	N106		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
59	H059	N101	N107		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
60	H060	N102	N108		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
61	H061	N103	N109		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
62	H062	N104	N110		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
63	H063	N114	N116		PIPE 2.0	Beam	None	A53 Gr. B	Typical
64	H064	N115	N117		PIPE 2.0	Beam	None	A53 Gr. B	Typical
65	H065	N118	N120		PIPE 3.0	Beam	None	A53 Gr. B	Typical
66	H066	N119	N121		PIPE 3.0	Beam	None	A53 Gr. B	Typical
67	TB067	N112	N123		LL2.5X2.5X3X6	Column	None	A36	Typical
68	TB068	N113	N124		LL2.5X2.5X3X6	Column	None	A36	Typical
69	TB069	N111	N122		LL2.5X2.5X3X6	Column	None	A36	Typical
70	U070	N125	N137		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
71	U071	N138	N139		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
72	MP072	N140	N141		PIPE 2.0	Column	None	A53 Gr. B	Typical
73	U073	N126	N142		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
74	U074	N143	N144		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
75	MP075	N145	N146		PIPE 2.0	Column	None	A53 Gr. B	Typical
76	U076	N127	N147		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
77	U077	N148	N149		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
78	MP078	N150	N151		PIPE 2.0	Column	None	A53 Gr. B	Typical
79	U079	N128	N152		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
80	U080	N153	N154		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
81	MP081	N155	N156		PIPE 2.0	Column	None	A53 Gr. B	Typical
82	U082	N157	N158		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
83	U083	N130	N159		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
84	MP084	N160	N161		PIPE 2.0	Column	None	A53 Gr. B	Typical
85	U085	N162	N163		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
86	U086	N132	N164		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
87	MP087	N165	N166		PIPE 2.0	Column	None	A53 Gr. B	Typical
88	U088	N167	N168		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
89	U089	N134	N169		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
90	MP090	N170	N171		PIPE 2.0	Column	None	A53 Gr. B	Typical
91	U091	N172	N173		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
92	U092	N136	N174		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
93	MP093	N175	N176		PIPE 2.0	Column	None	A53 Gr. B	Typical
94	U094	N177	N178		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
95	U095	N129	N179		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical



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Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
96	MP096	N180	N181		PIPE 2.0	Column	None	A53 Gr. B	Typical
97	U097	N182	N183		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
98	U098	N131	N184		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
99	MP099	N185	N186		PIPE 2.0	Column	None	A53 Gr. B	Typical
100	U100	N187	N188		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
101	U101	N133	N189		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
102	MP102	N190	N191		PIPE 2.0	Column	None	A53 Gr. B	Typical
103	U103	N192	N193		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
104	U104	N135	N194		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
105	MP105	N195	N196		PIPE 2.0	Column	None	A53 Gr. B	Typical
106	U106	N199	N200		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
107	MP107	N201	N202		PIPE 2.0	Column	None	A53 Gr. B	Typical
108	U108	N198	N203		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
109	MP109	N204	N205		PIPE 2.0	Column	None	A53 Gr. B	Typical
110	U110	N197	N206		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
111	MP111	N207	N208		PIPE 2.0	Column	None	A53 Gr. B	Typical

Member Advanced Data

	Label	I Release	J Release	Physical	Deflection Ratio Options	Activation	Seismic DR
1	H001			Yes	N/A		None
2	H002			Yes	N/A		None
3	H003			Yes	N/A		None
4	H004			Yes	N/A		None
5	H005			Yes	N/A		None
6	H006			Yes	N/A		None
7	H007			Yes	N/A		None
8	H008			Yes	N/A		None
9	H009			Yes	N/A		None
10	H010	BenPIN	BenPIN	Yes	N/A		None
11	H011	BenPIN	BenPIN	Yes	N/A		None
12	H012	BenPIN	BenPIN	Yes	N/A		None
13	H013	BenPIN	BenPIN	Yes	N/A		None
14	H014	BenPIN	BenPIN	Yes	N/A		None
15	H015	BenPIN	BenPIN	Yes	N/A		None
16	H016			Yes	N/A		None
17	H017			Yes	N/A		None
18	H018			Yes	N/A		None
19	H019			Yes	N/A		None
20	H020			Yes	N/A		None
21	H021			Yes	N/A		None
22	H022			Yes	Default	Exclude	None
23	H023			Yes	Default	Exclude	None
24	H024			Yes	Default	Exclude	None
25	H025			Yes	Default	Exclude	None
26	H026			Yes	Default	Exclude	None
27	H027			Yes	Default	Exclude	None
28	H028			Yes	N/A		None
29	H029			Yes	N/A		None
30	H030			Yes	N/A		None
31	H031			Yes	N/A		None
32	H032			Yes	N/A		None
33	H033			Yes	N/A		None
34	H034			Yes	N/A		None
35	H035			Yes	N/A		None
36	H036			Yes	N/A		None



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Member Advanced Data (Continued)

	Label	I Release	J Release	Physical	Deflection Ratio Options	Activation	Seismic DR
37	H037			Yes	N/A		None
38	H038			Yes	N/A		None
39	H039			Yes	N/A		None
40	H040			Yes	N/A		None
41	H041			Yes	Default	Exclude	None
42	H042			Yes	Default	Exclude	None
43	H043			Yes	Default	Exclude	None
44	H044			Yes	Default	Exclude	None
45	H045			Yes	Default	Exclude	None
46	H046			Yes	Default	Exclude	None
47	H047			Yes	N/A		None
48	H048			Yes	N/A		None
49	H049			Yes	N/A		None
50	H050			Yes	N/A		None
51	H051			Yes	N/A		None
52	H052			Yes	N/A		None
53	H053			Yes	N/A		None
54	H054			Yes	N/A		None
55	H055			Yes	N/A		None
56	H056			Yes	N/A		None
57	H057			Yes	N/A	Exclude	None
58	H058			Yes	N/A	Exclude	None
59	H059			Yes	N/A	Exclude	None
60	H060			Yes	N/A	Exclude	None
61	H061			Yes	N/A	Exclude	None
62	H062			Yes	N/A	Exclude	None
63	H063			Yes	N/A		None
64	H064			Yes	N/A		None
65	H065			Yes	N/A		None
66	H066			Yes	N/A		None
67	TB067		BenPIN	Yes	** NA **		None
68	TB068		BenPIN	Yes	** NA **		None
69	TB069		BenPIN	Yes	** NA **		None
70	U070			Yes	N/A	Exclude	None
71	U071			Yes	N/A	Exclude	None
72	MP072			Yes	** NA **		None
73	U073			Yes	N/A	Exclude	None
74	U074			Yes	N/A	Exclude	None
75	MP075			Yes	** NA **		None
76	U076			Yes	N/A	Exclude	None
77	U077			Yes	N/A	Exclude	None
78	MP078			Yes	** NA **		None
79	U079			Yes	N/A	Exclude	None
80	U080			Yes	N/A	Exclude	None
81	MP081			Yes	** NA **		None
82	U082			Yes	N/A	Exclude	None
83	U083			Yes	N/A	Exclude	None
84	MP084			Yes	** NA **		None
85	U085			Yes	N/A	Exclude	None
86	U086			Yes	N/A	Exclude	None
87	MP087			Yes	** NA **		None
88	U088			Yes	N/A	Exclude	None
89	U089			Yes	N/A	Exclude	None
90	MP090			Yes	** NA **		None
91	U091			Yes	N/A	Exclude	None



Company : American Tower Corp.
 Designer : Max.Carter
 Job Number : 13753208_C8_01
 Model Name : 302489, Enfd - Enfield

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Member Advanced Data (Continued)

	Label	I Release	J Release	Physical	Deflection Ratio Options	Activation	Seismic DR
92	U092			Yes	N/A	Exclude	None
93	MP093			Yes	** NA **		None
94	U094			Yes	N/A	Exclude	None
95	U095			Yes	N/A	Exclude	None
96	MP096			Yes	** NA **		None
97	U097			Yes	N/A	Exclude	None
98	U098			Yes	N/A	Exclude	None
99	MP099			Yes	** NA **		None
100	U100			Yes	N/A	Exclude	None
101	U101			Yes	N/A	Exclude	None
102	MP102			Yes	** NA **		None
103	U103			Yes	N/A	Exclude	None
104	U104			Yes	N/A	Exclude	None
105	MP105			Yes	** NA **		None
106	U106			Yes	N/A	Exclude	None
107	MP107			Yes	** NA **		None
108	U108			Yes	N/A	Exclude	None
109	MP109			Yes	** NA **		None
110	U110			Yes	N/A	Exclude	None
111	MP111			Yes	** NA **		None

Hot Rolled Steel Design Parameters

	Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	L-Torque [in]	K y-y	K z-z	Function
1	H001	HSS4X4X4	63			Lbyy		1	1	Lateral
2	H002	PL6X0.5	12			Lbyy		0.65	0.65	Lateral
3	H003	HSS4X4X4	63			Lbyy		1	1	Lateral
4	H004	HSS4X4X4	63			Lbyy		1	1	Lateral
5	H005	PL6X0.5	12			Lbyy		0.65	0.65	Lateral
6	H006	PL6X0.5	12			Lbyy		0.65	0.65	Lateral
7	H007	HSS4X4X4	60			Lbyy		0.65	0.65	Lateral
8	H008	HSS4X4X4	60			Lbyy		0.65	0.65	Lateral
9	H009	HSS4X4X4	60			Lbyy		0.65	0.65	Lateral
10	H010	L2X2X3	50.229			Lbyy		1	1	Lateral
11	H011	L2X2X3	50.229			Lbyy		1	1	Lateral
12	H012	L2X2X3	50.229			Lbyy		1	1	Lateral
13	H013	L2X2X3	50.229			Lbyy		1	1	Lateral
14	H014	L2X2X3	50.229			Lbyy		1	1	Lateral
15	H015	L2X2X3	50.229			Lbyy		1	1	Lateral
16	H016	PL6X0.5	3			Lbyy		1	1	Lateral
17	H017	PL6X0.5	3			Lbyy		1	1	Lateral
18	H018	PL6X0.5	3			Lbyy		1	1	Lateral
19	H019	PL6X0.5	3			Lbyy		1	1	Lateral
20	H020	PL6X0.5	3			Lbyy		1	1	Lateral
21	H021	PL6X0.5	3			Lbyy		1	1	Lateral
22	H022	(1) 1/2 U-Bolt	2			Lbyy		0.65	0.65	Lateral
23	H023	(1) 1/2 U-Bolt	2			Lbyy		0.65	0.65	Lateral
24	H024	(1) 1/2 U-Bolt	2			Lbyy		0.65	0.65	Lateral
25	H025	(1) 1/2 U-Bolt	2			Lbyy		0.65	0.65	Lateral
26	H026	(1) 1/2 U-Bolt	2			Lbyy		0.65	0.65	Lateral
27	H027	(1) 1/2 U-Bolt	2			Lbyy		0.65	0.65	Lateral
28	H028	PIPE 3.0	150			Lbyy		1	1	Lateral
29	H029	PL6X0.375	4			Lbyy		0.65	0.65	Lateral
30	H030	PL6X0.375	4			Lbyy		0.65	0.65	Lateral
31	H031	PL6X0.375	4			Lbyy		0.65	0.65	Lateral
32	H032	PL6X0.375	4			Lbyy		0.65	0.65	Lateral



Company : American Tower Corp.
 Designer : Max.Carter
 Job Number : 13753208_C8_01
 Model Name : 302489, Enfd - Enfield

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Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	L-Torque [in]	K y-y	K z-z	Function
33	H033	PL6X0.375	4			Lbyy		0.65	0.65	Lateral
34	H034	PL6X0.375	4			Lbyy		0.65	0.65	Lateral
35	H035	PL6X0.375	3			Lbyy		1	1	Lateral
36	H036	PL6X0.375	3			Lbyy		1	1	Lateral
37	H037	PL6X0.375	3			Lbyy		1	1	Lateral
38	H038	PL6X0.375	3			Lbyy		1	1	Lateral
39	H039	PL6X0.375	3			Lbyy		1	1	Lateral
40	H040	PL6X0.375	3			Lbyy		1	1	Lateral
41	H041	(1) 1/2 U-Bolt	1.965			Lbyy		0.65	0.65	Lateral
42	H042	(1) 1/2 U-Bolt	1.965			Lbyy		0.65	0.65	Lateral
43	H043	(1) 1/2 U-Bolt	1.965			Lbyy		0.65	0.65	Lateral
44	H044	(1) 1/2 U-Bolt	1.965			Lbyy		0.65	0.65	Lateral
45	H045	(1) 1/2 U-Bolt	1.965			Lbyy		0.65	0.65	Lateral
46	H046	(1) 1/2 U-Bolt	1.965			Lbyy		0.65	0.65	Lateral
47	H047	PIPE 2.0	150			Lbyy		0.65	0.65	Lateral
48	H048	L2.5X2.5X4	14.71			Lbyy		0.65	0.65	Lateral
49	H049	L2.5X2.5X4	14.71			Lbyy		0.65	0.65	Lateral
50	H050	L2.5X2.5X4	14.71			Lbyy		0.65	0.65	Lateral
51	H051	PL6X0.375	6			Lbyy		0.65	0.65	Lateral
52	H052	PL6X0.375	6			Lbyy		0.65	0.65	Lateral
53	H053	PL6X0.375	6			Lbyy		0.65	0.65	Lateral
54	H054	PL6X0.375	6			Lbyy		0.65	0.65	Lateral
55	H055	PL6X0.375	6			Lbyy		0.65	0.65	Lateral
56	H056	PL6X0.375	6			Lbyy		0.65	0.65	Lateral
57	H057	(2) 1/2 U-BOLTS	1.5			Lbyy		0.65	0.65	Lateral
58	H058	(2) 1/2 U-BOLTS	1.5			Lbyy		0.65	0.65	Lateral
59	H059	(2) 1/2 U-BOLTS	1.5			Lbyy		0.65	0.65	Lateral
60	H060	(2) 1/2 U-BOLTS	1.5			Lbyy		0.65	0.65	Lateral
61	H061	(2) 1/2 U-BOLTS	1.5			Lbyy		0.65	0.65	Lateral
62	H062	(2) 1/2 U-BOLTS	1.5			Lbyy		0.65	0.65	Lateral
63	H063	PIPE 2.0	150			Lbyy		0.65	0.65	Lateral
64	H064	PIPE 2.0	150			Lbyy		0.65	0.65	Lateral
65	H065	PIPE 3.0	150			Lbyy		1	1	Lateral
66	H066	PIPE 3.0	150			Lbyy		1	1	Lateral
67	TB067	LL2.5X2.5X3X6	52.757			Lbyy		1	1	Lateral
68	TB068	LL2.5X2.5X3X6	52.757			Lbyy		1	1	Lateral
69	TB069	LL2.5X2.5X3X6	52.757			Lbyy		1	1	Lateral
70	U070	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
71	U071	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
72	MP072	PIPE 2.0	114	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
73	U073	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
74	U074	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
75	MP075	PIPE 2.0	114	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
76	U076	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
77	U077	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
78	MP078	PIPE 2.0	114	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
79	U079	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
80	U080	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
81	MP081	PIPE 2.0	114	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
82	U082	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
83	U083	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
84	MP084	PIPE 2.0	114	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
85	U085	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
86	U086	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
87	MP087	PIPE 2.0	114	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	L-Torque [in]	K y-y	K z-z	Function
88	U088	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
89	U089	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
90	MP090	PIPE 2.0	114	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
91	U091	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
92	U092	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
93	MP093	PIPE 2.0	114	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
94	U094	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
95	U095	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
96	MP096	PIPE 2.0	114	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
97	U097	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
98	U098	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
99	MP099	PIPE 2.0	114	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
100	U100	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
101	U101	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
102	MP102	PIPE 2.0	114	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
103	U103	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
104	U104	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
105	MP105	PIPE 2.0	114	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
106	U106	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
107	MP107	PIPE 2.0	60	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
108	U108	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
109	MP109	PIPE 2.0	60	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
110	U110	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
111	MP111	PIPE 2.0	60	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral

Hot Rolled Steel Properties

	Label	E [psi]	G [psi]	Nu	Therm. Coeff. [1e ⁻⁶ F ⁻¹]	Density [lb/ft ³]	Yield [psi]	Ry	Fu [psi]	Rt
1	A500 Gr. B [SQR]	2.9e+07	1.115e+07	0.3	0.65	527	46000	1.4	58000	1.3
2	A36	2.9e+07	1.115e+07	0.3	0.65	490	36000	1.5	58000	1.2
3	SAE J429 Gr. 2	2.9e+07	1.115e+07	0.3	0.65	490	57000	1.1	74000	1.1
4	A53 Gr. B	2.9e+07	1.115e+07	0.3	0.65	490	35000	1.6	60000	1.2

Envelope Node Reactions

	Node Label		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	N002	max	2619.127	5	1130.607	20	4971.124	2	991.61	26	3155.871	23	1050.445	23
2		min	-2617.223	23	-4795.75	26	-3925.025	20	-56.333	20	-3157.381	17	-1063.383	5
3	N006	max	4368.545	6	1130.48	24	2255.98	14	860.951	14	3155.813	15	353.578	21
4		min	-3464.143	24	-4795.517	30	-2780.433	8	-1108.57	8	-3157.324	21	-1086.905	27
5	N007	max	3343.87	16	1130.473	16	2379.598	14	816.195	25	3155.817	19	1140.139	36
6		min	-4251.35	10	-4795.514	34	-2901.878	8	-1083.233	31	-3157.327	25	-458.77	18
7	N111	max	36.452	17	9544.828	26	295.265	20	0	241	0	241	0	241
8		min	-36.58	23	-1238.733	20	-2489.101	26	0	1	0	1	0	1
9	N112	max	250.867	24	9544.503	30	1232.433	30	0	241	0	241	0	241
10		min	-2152.375	30	-1238.584	24	-129.719	24	0	1	0	1	0	1
11	N113	max	2152.291	34	9544.5	34	1232.577	34	0	241	0	241	0	241
12		min	-250.882	16	-1238.578	16	-129.689	16	0	1	0	1	0	1
13	Totals:	max	7792.112	17	11849.412	31	8348.57	14						
14		min	-7792.112	11	3001.345	25	-8348.57	8						



Company : American Tower Corp.
Designer : Max.Carter
Job Number : 13753208_C8_01
Model Name : 302489, Enfd - Enfield

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Envelope AISC 15TH (360-16): LRFD Member Steel Code Checks

Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [lb-ft]	phi*Mn z-z [lb-ft]	Cb	Eqn	
1	H001	HSS4X4X4	0.41	13.125	27	0.163	5.906	y	28	124317.885	139518	16180.5	16180.5	1.746	H1-1b
2	H002	PL6X0.5	0.168	6	2	0.258	6	y	5	83348.625	97200	1012.5	12150	1.11	H1-1b
3	H003	HSS4X4X4	0.41	13.125	31	0.163	5.906	y	32	124317.885	139518	16180.5	16180.5	1.746	H1-1b
4	H004	HSS4X4X4	0.41	13.125	35	0.163	5.906	y	36	124317.885	139518	16180.5	16180.5	1.746	H1-1b
5	H005	PL6X0.5	0.168	6	6	0.258	6	y	9	83348.625	97200	1012.5	12150	1.11	H1-1b
6	H006	PL6X0.5	0.168	6	10	0.258	6	y	13	83348.625	97200	1012.5	12150	1.11	H1-1b
7	H007	HSS4X4X4	0.276	30	37	0.082	30	y	27	133484.923	139518	16180.5	16180.5	1.326	H1-1b
8	H008	HSS4X4X4	0.276	30	29	0.082	30	y	31	133484.923	139518	16180.5	16180.5	1.326	H1-1b
9	H009	HSS4X4X4	0.276	30	33	0.082	30	y	35	133484.923	139518	16180.5	16180.5	1.326	H1-1b
10	H010	L2X2X3	0.236	25.638	11	0.01	50.229	y	31	9724.796	23392.8	557.717	1072.365	1.136	H2-1
11	H011	L2X2X3	0.236	25.638	3	0.01	50.229	y	35	9724.796	23392.8	557.717	1072.365	1.136	H2-1
12	H012	L2X2X3	0.236	25.638	7	0.01	50.229	y	27	9724.796	23392.8	557.717	1072.365	1.136	H2-1
13	H013	L2X2X3	0.225	25.115	8	0.012	50.229	z	37	9724.796	23392.8	557.717	1072.365	1.136	H2-1
14	H014	L2X2X3	0.225	25.115	12	0.012	50.229	z	29	9724.796	23392.8	557.717	1072.365	1.136	H2-1
15	H015	L2X2X3	0.225	25.115	4	0.012	50.229	z	33	9724.796	23392.8	557.717	1072.365	1.136	H2-1
16	H016	PL6X0.5	0.079	0	10	0.681	0	y	8	95014.386	97200	1012.5	12150	1.814	H1-1b
17	H017	PL6X0.5	0.079	0	2	0.681	0	y	12	95014.386	97200	1012.5	12150	1.814	H1-1b
18	H018	PL6X0.5	0.079	0	6	0.681	0	y	4	95014.386	97200	1012.5	12150	1.814	H1-1b
19	H019	PL6X0.5	0.077	0	10	0.5	0	y	12	95014.386	97200	1012.5	12150	1.664	H1-1b
20	H020	PL6X0.5	0.077	0	2	0.5	0	y	4	95014.386	97200	1012.5	12150	1.664	H1-1b
21	H021	PL6X0.5	0.077	0	6	0.5	0	y	8	95014.386	97200	1012.5	12150	1.664	H1-1b
22	H028	PIPE 3.0	0.261	92.188	30	0.13	56.25		37	28250.554	65205	5748.75	5748.75	2.514	H1-1b
23	H029	PL6X0.375	0.286	2	11	0.588	2	y	6	70719.442	72900	569.531	9112.5	1.362	H1-1b
24	H030	PL6X0.375	0.286	2	3	0.588	2	y	10	70719.442	72900	569.531	9112.5	1.362	H1-1b
25	H031	PL6X0.375	0.286	2	7	0.588	2	y	2	70719.442	72900	569.531	9112.5	1.362	H1-1b
26	H032	PL6X0.375	0.192	2	9	0.499	2	y	2	70719.442	72900	569.531	9112.5	1.354	H1-1b
27	H033	PL6X0.375	0.192	2	13	0.499	2	y	6	70719.442	72900	569.531	9112.5	1.354	H1-1b
28	H034	PL6X0.375	0.192	2	5	0.499	2	y	10	70719.442	72900	569.531	9112.5	1.354	H1-1b
29	H035	PL6X0.375	0.286	1.5	13	0.729	0	y	8	70011.374	72900	569.531	9112.5	1.617	H1-1b
30	H036	PL6X0.375	0.286	1.5	5	0.729	0	y	12	70011.374	72900	569.531	9112.5	1.617	H1-1b
31	H037	PL6X0.375	0.286	1.5	9	0.729	0	y	4	70011.374	72900	569.531	9112.5	1.617	H1-1b
32	H038	PL6X0.375	0.217	1.5	3	0.676	0	y	8	70011.374	72900	569.531	9112.5	1.591	H1-1b
33	H039	PL6X0.375	0.217	1.5	7	0.676	0	y	12	70011.374	72900	569.531	9112.5	1.591	H1-1b
34	H040	PL6X0.375	0.217	1.5	11	0.676	0	y	4	70011.374	72900	569.531	9112.5	1.591	H1-1b
35	H047	PIPE 2.0	0.349	123.438	9	0.282	10.938		13	14559.939	32130	1871.625	1871.625	3	H1-1b
36	H048	L2.5X2.5X4	0.318	0	6	0.205	0	z	11	37765.457	38556	1113.554	2537.388	1.5	H2-1
37	H049	L2.5X2.5X4	0.318	0	10	0.205	0	z	3	37765.457	38556	1113.554	2537.388	1.5	H2-1
38	H050	L2.5X2.5X4	0.318	0	2	0.205	0	z	7	37765.457	38556	1113.554	2537.388	1.5	H2-1
39	H051	PL6X0.375	0.428	1.5	11	0.765	1.5	y	2	68085.235	72900	569.531	9112.5	1.905	H1-1b
40	H052	PL6X0.375	0.428	1.5	3	0.765	1.5	y	6	68085.235	72900	569.531	9112.5	1.905	H1-1b
41	H053	PL6X0.375	0.428	1.5	7	0.765	1.5	y	10	68085.235	72900	569.531	9112.5	1.905	H1-1b
42	H054	PL6X0.375	0.364	1.5	33	0.696	1.5	y	6	68085.235	72900	569.531	9112.5	1.48	H1-1b
43	H055	PL6X0.375	0.364	1.5	37	0.696	1.5	y	10	68085.235	72900	569.531	9112.5	1.48	H1-1b
44	H056	PL6X0.375	0.364	1.5	29	0.696	1.5	y	2	68085.235	72900	569.531	9112.5	1.48	H1-1b
45	H063	PIPE 2.0	0.349	123.437	13	0.282	10.937		5	14559.939	32130	1871.625	1871.625	3	H1-1b
46	H064	PIPE 2.0	0.349	123.438	5	0.282	10.938		9	14559.939	32130	1871.625	1871.625	3	H1-1b
47	H065	PIPE 3.0	0.261	92.188	34	0.13	56.25		29	28250.554	65205	5748.75	5748.75	2.514	H1-1b
48	H066	PIPE 3.0	0.261	92.188	26	0.13	56.25		33	28250.554	65205	5748.75	5748.75	2.514	H1-1b
49	TB067	LL2.5X2.5X3X6	0.246	25.829	30	0.003	52.757	y	6	43273.963	58320	4643.061	2549.586	1.136	H1-1a
50	TB068	LL2.5X2.5X3X6	0.246	25.829	34	0.003	52.757	y	10	43273.963	58320	4643.061	2549.586	1.136	H1-1a
51	TB069	LL2.5X2.5X3X6	0.241	25.279	26	0.002	52.757	y	2	43273.963	58320	4643.061	2549.586	1	H1-1a
52	MP072	PIPE 2.0	0.316	81.938	13	0.139	81.938		8	16811.605	32130	1871.625	1871.625	3	H1-1b
53	MP075	PIPE 2.0	0.516	70.062	13	0.135	28.5		9	16811.605	32130	1871.625	1871.625	1.905	H1-1b
54	MP078	PIPE 2.0	0.509	70.062	2	0.074	70.062		13	16811.605	32130	1871.625	1871.625	1.976	H1-1b
55	MP081	PIPE 2.0	0.548	70.062	3	0.161	28.5		7	16811.605	32130	1871.625	1871.625	2.558	H1-1b

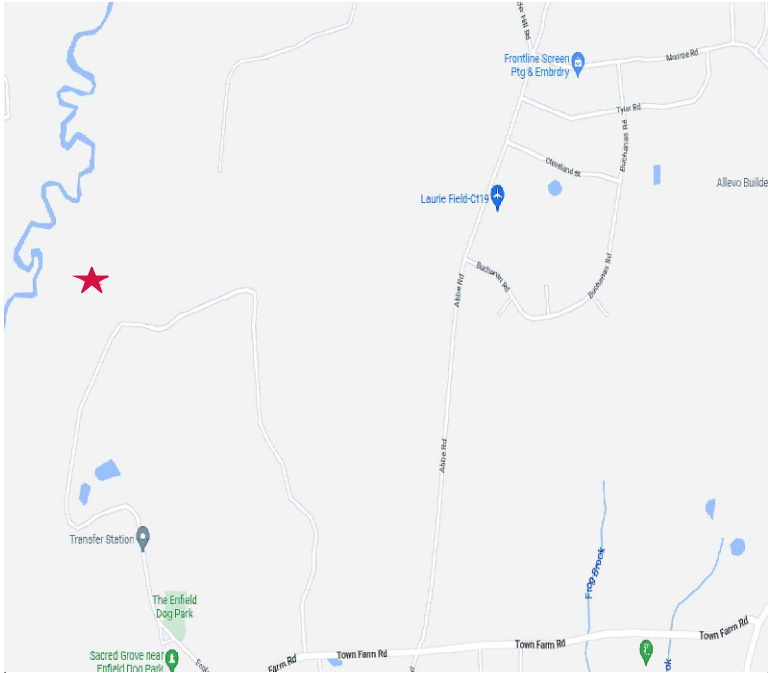


Company : American Tower Corp.
 Designer : Max.Carter
 Job Number : 13753208_C8_01
 Model Name : 302489, Enfd - Enfield

2/16/2022
 2:30:21 PM
 Checked By : -

Envelope AISC 15TH (360-16): LRFD Member Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[in]	LC Shear Check	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [lb-ft]	phi*Mn z-z [lb-ft]	Cb	Eqn
56	MP084	PIPE 2.0	0.316	81.938	9	0.139	81.938	4	16811.605	32130	1871.625	1871.625	2.887	H1-1b
57	MP087	PIPE 2.0	0.516	70.062	9	0.135	28.5	5	16811.605	32130	1871.625	1871.625	1.722	H1-1b
58	MP090	PIPE 2.0	0.509	70.062	10	0.074	70.062	9	16811.605	32130	1871.625	1871.625	2.259	H1-1b
59	MP093	PIPE 2.0	0.548	70.062	11	0.161	28.5	3	16811.605	32130	1871.625	1871.625	2.036	H1-1b
60	MP096	PIPE 2.0	0.316	81.938	5	0.139	81.938	12	16811.605	32130	1871.625	1871.625	2.211	H1-1b
61	MP099	PIPE 2.0	0.516	70.062	5	0.135	28.5	13	16811.605	32130	1871.625	1871.625	1.962	H1-1b
62	MP102	PIPE 2.0	0.509	70.062	6	0.074	70.062	5	16811.605	32130	1871.625	1871.625	1.894	H1-1b
63	MP105	PIPE 2.0	0.548	70.062	7	0.161	28.5	11	16811.605	32130	1871.625	1871.625	1.833	H1-1b
64	MP107	PIPE 2.0	0.081	40.625	12	0.013	40.625	12	17331.854	32130	1871.625	1871.625	3	H1-1b
65	MP109	PIPE 2.0	0.081	40.625	8	0.013	40.625	8	17331.854	32130	1871.625	1871.625	1.684	H1-1b
66	MP111	PIPE 2.0	0.081	40.625	4	0.013	40.625	4	17331.854	32130	1871.625	1871.625	3	H1-1b



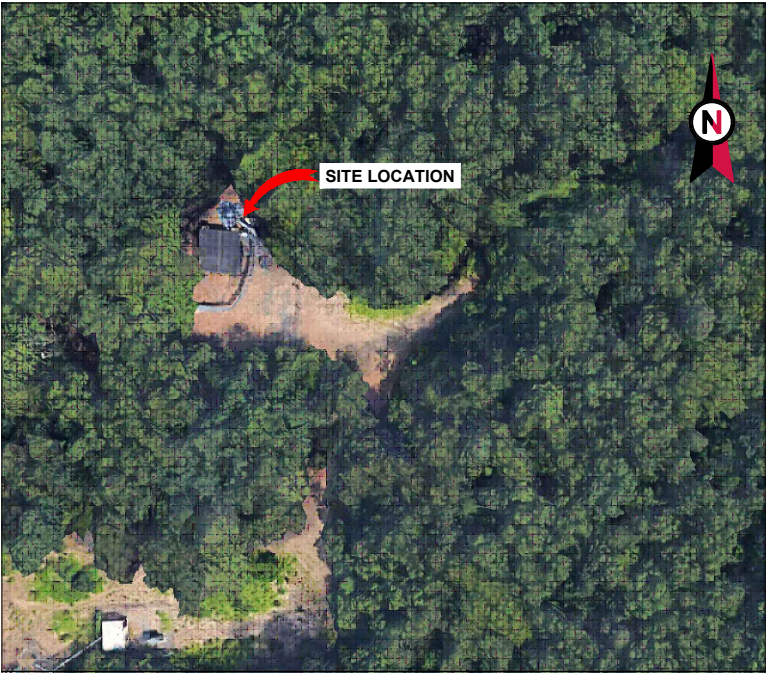
VICINITY MAP



AMERICAN TOWER®

ATC SITE NAME: ENFD - ENFIELD
ATC SITE NUMBER: 302489
AT&T PACE NUMBERS: MRCTB055067/ MRCTB056379/
MRCTB054783/ MRCTB053474/
MRCTB056386/ MRCTB055004/
MRCTB053472

AT&T SITE ID: CTL01021
AT&T FA CODE:10034985
AT&T SITE NAME: ENFIELD-TOWN FARM RD
SITE ADDRESS: 77 TOWN FARM ROAD
ENFIELD,CT 06082-5152



LOCATION MAP

AT&T 5G NR RADIO / 5G NR 1SR C-BAND / 4TXRX RETROFIT / BBU RECONFIG AMENDMENT PLAN

COMPLIANCE CODE	PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET INDEX					
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES. 1. INTERNATIONAL BUILDING CODE (IBC) 2. NATIONAL ELECTRIC CODE (NEC) 3. LOCAL BUILDING CODE 4. CITY/COUNTY ORDINANCES	SITE ADDRESS: 77 TOWN FARM ROAD ENFIELD,CT 06082-5152 COUNTY: HARTFORD GEOGRAPHIC COORDINATES: LATITUDE: 41.96591325 LONGITUDE: -72.55271225 GROUND ELEVATION: 159' AMSL	THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW: <u>TOWER WORK:</u> REMOVE (9) ANTENNA(S), (6) RRH(S), (6) TMA(S), (12) DIPLEXER(S) AND (5) 1 5/8" COAX CABLE(S) INSTALL MOUNT MODIFICATION(S), (12) ANTENNA(S), (6) RRH(S), (1) DC-6 SQUID, (2) 0.92" 6 AWG 6 DC CABLE(S), (1) 0.40" FIBER CABLE(S), (6) Y-CABLE(S) AND (1) 2" CONDUIT(S) EXISTING (6) RRH(S), (2) DC-6 SQUID(S), (2) 8 AWG 6, (2) 6 AWG 6 DC TRUNKS AND (2) FIBER TRUNKS AND (6) 1 5/8"COAX TO REMAIN <u>GROUND WORK:</u> REMOVE NONE INSTALL (1) 6648+XCEDE AND (3) RECTIFIERS	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:	
			G-001	TITLE SHEET	0	06/21/22	AB	
			G-002	GENERAL NOTES	0	06/21/22	AB	
			C-101	DETAILED SITE PLAN	0	06/21/22	AB	
		C-102	DETAILED EQUIPMENT LAYOUT	0	06/21/22	AB		
		C-201	TOWER ELEVATION	0	06/21/22	AB		
		E-501	GROUNDING DETAILS	0	06/21/22	AB		
				R-601	SUPPLEMENTAL			
				R-602	SUPPLEMENTAL			
				R-603	SUPPLEMENTAL			
			R-604	MOUNT MODIFICATIONS				



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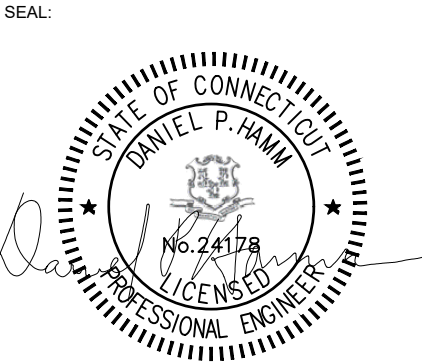
REV.	DESCRIPTION	BY	DATE
A	PRELIM	AB	03/28/22
0	FINALS	BB	06/21/22

ATC SITE NUMBER:
302489

ATC SITE NAME:
ENFD - ENFIELD

AT&T SITE NAME:
ENFIELD-TOWN FARM RD

SITE ADDRESS:
77 TOWN FARM ROAD
ENFIELD,CT 06082-5152



DATE DRAWN:	03/24/22
ATC JOB NO:	13753208_G5
CUSTOMER ID:	CTL01021
CUSTOMER #:	10034985

TITLE SHEET

SHEET NUMBER: G-001	REVISION: 0
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GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, AT&T "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
- A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)

B. AC/TELCO INTERFACE BOX (PPC)

C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)

D. TOWERS, MONOPOLES

E. TOWER LIGHTING

F. GENERATORS & LIQUID PROPANE TANK

G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING

H. ANTENNAS (INSTALLED BY OTHERS)

I. TRANSMISSION LINE

J. TRANSMISSION LINE JUMPERS

K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS

L. TRANSMISSION LINE GROUND KITS

M. HANGERS

N. HOISTING GRIPS

O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF AT&T TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE AT&T REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE AT&T REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE AT&T REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE AT&T CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE AT&T REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH AT&T AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T REP TO

- DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY AT&T MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH AT&T SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO AT&T FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO AT&T SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY AT&T REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
29. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
30. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE AT&T REP. ANY WORK FOUND BY THE AT&T REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
31. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
32. AT&T FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE AT&T WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
33. AT&T OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO AT&T OR THEIR ARCHITECT/ENGINEER.
- SPECIAL CONSTRUCTION**
- ANTENNA INSTALLATION NOTES:**
1. WORK INCLUDED:
- A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY AT&T UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL.

B. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND AT&T SPECIFICATIONS.

C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.

D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.

E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.

F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.

G. ANTENNA AND COAXIAL CABLE GROUNDING:
2. ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.
3. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.



45 BEECHWOOD DRIVE
N. ANDOVER, MA 01845

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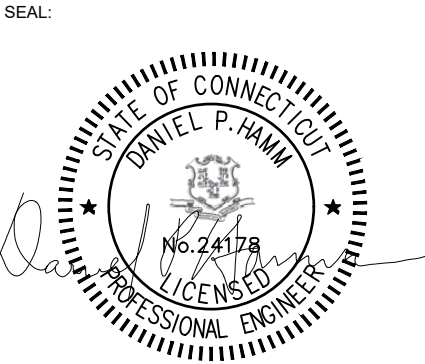
REV.	DESCRIPTION	BY	DATE
<u>A</u>	PRELIM	AB	03/28/22
<u>0</u>	FINALS	BB	06/21/22
<u> </u>			
<u> </u>			
<u> </u>			

ATC SITE NUMBER:
302489

ATC SITE NAME:
ENFD - ENFIELD

AT&T SITE NAME:
ENFIELD-TOWN FARM RD

SITE ADDRESS:
77 TOWN FARM ROAD
ENFIELD,CT 06082-5152



DATE DRAWN:	03/24/22
ATC JOB NO:	13753208_G5
CUSTOMER ID:	CTL01021
CUSTOMER #:	10034985

GENERAL NOTES

SHEET NUMBER:
G-002

REVISION:
0

SITE PLAN NOTES:

1.

THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2.

ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
3.

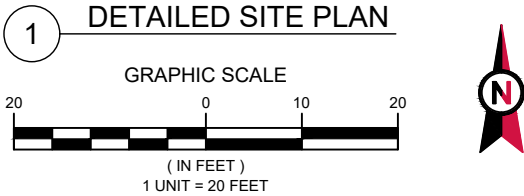
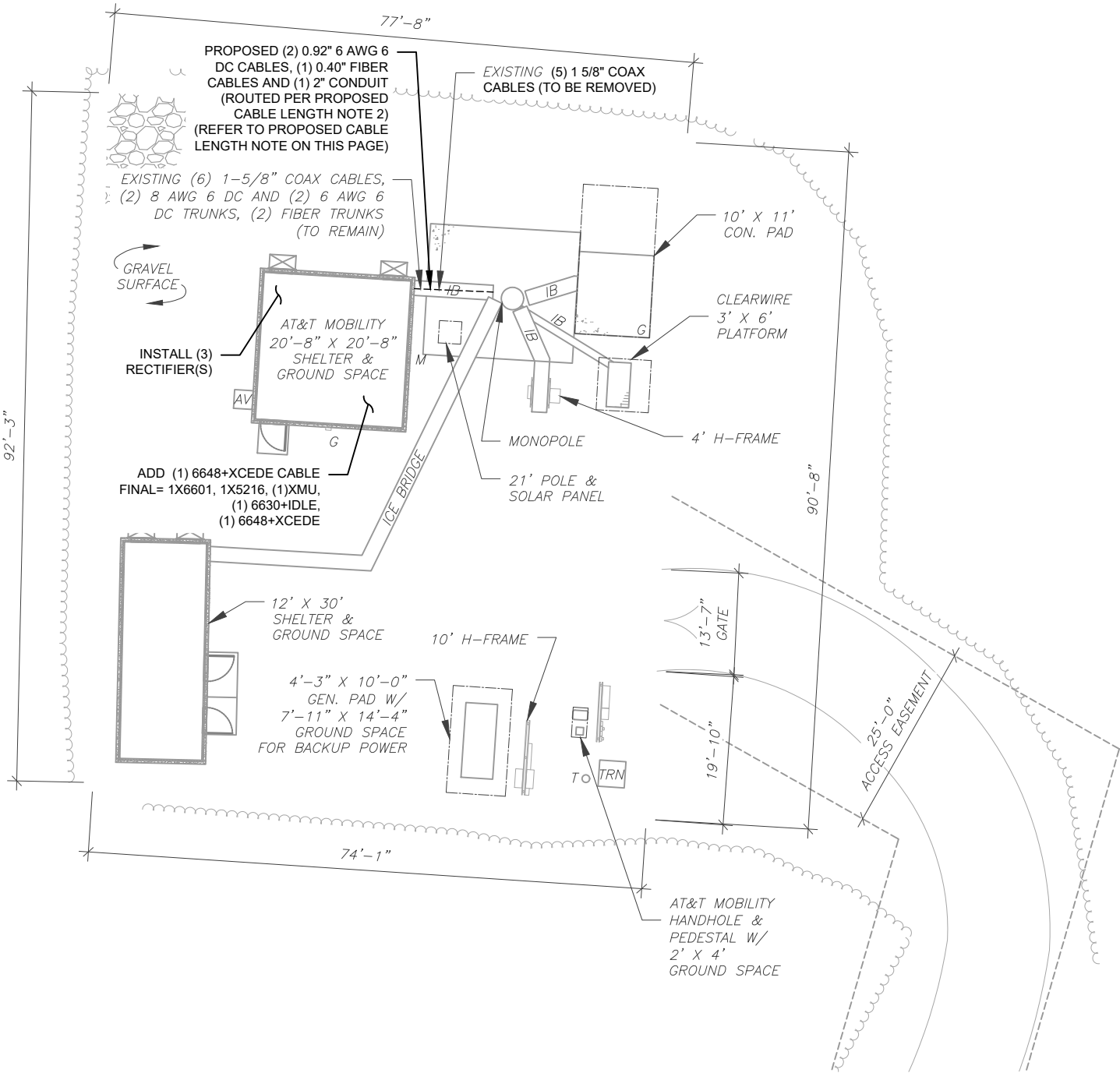
THIS PROJECT INCLUDES NO INSTALL OR MODIFICATION AT GRADE.

LEGEND	
⊗	GROUNDING TEST WELL
ATS	AUTOMATIC TRANSFER SWITCH
B	BOLLARD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACAL
HH, V	HAND HOLE, VAULT
IB	ICE BRIDGE
K	KENTROX BOX
LC	LIGHTING CONTROL
M	METER
PB	PULL BOX
PP	POWER POLE
T	TELCO
TRN	TRANSFORMER
— x —	CHAINLINK FENCE

- PROPOSED CABLE LENGTH:**
1.

ESTIMATED LENGTH OF PROPOSED CABLE IS **190'**. ESTIMATED LENGTH OF CABLE WAS PROVIDED BY CUSTOMER OR CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES). CDS DEFER TO GREATEST CABLE LENGTH.
2.

ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.



45 BEECHWOOD DRIVE
N. ANDOVER, MA 01845

TEL: (978) 557-5553
FAX: (978) 336-5586

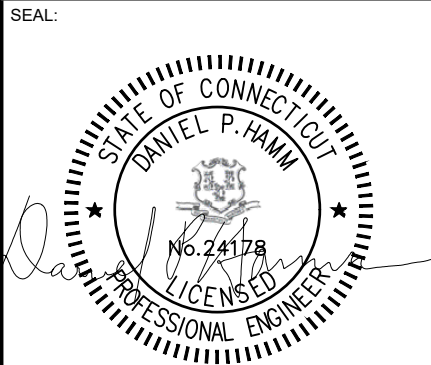
REV.	DESCRIPTION	BY	DATE
A	PRELIM	AB	03/28/22
0	FINALS	BB	06/21/22

ATC SITE NUMBER:
302489

ATC SITE NAME:
ENFD - ENFIELD

AT&T SITE NAME:
ENFIELD-TOWN FARM RD

SITE ADDRESS:
77 TOWN FARM ROAD
ENFIELD,CT 06082-5152

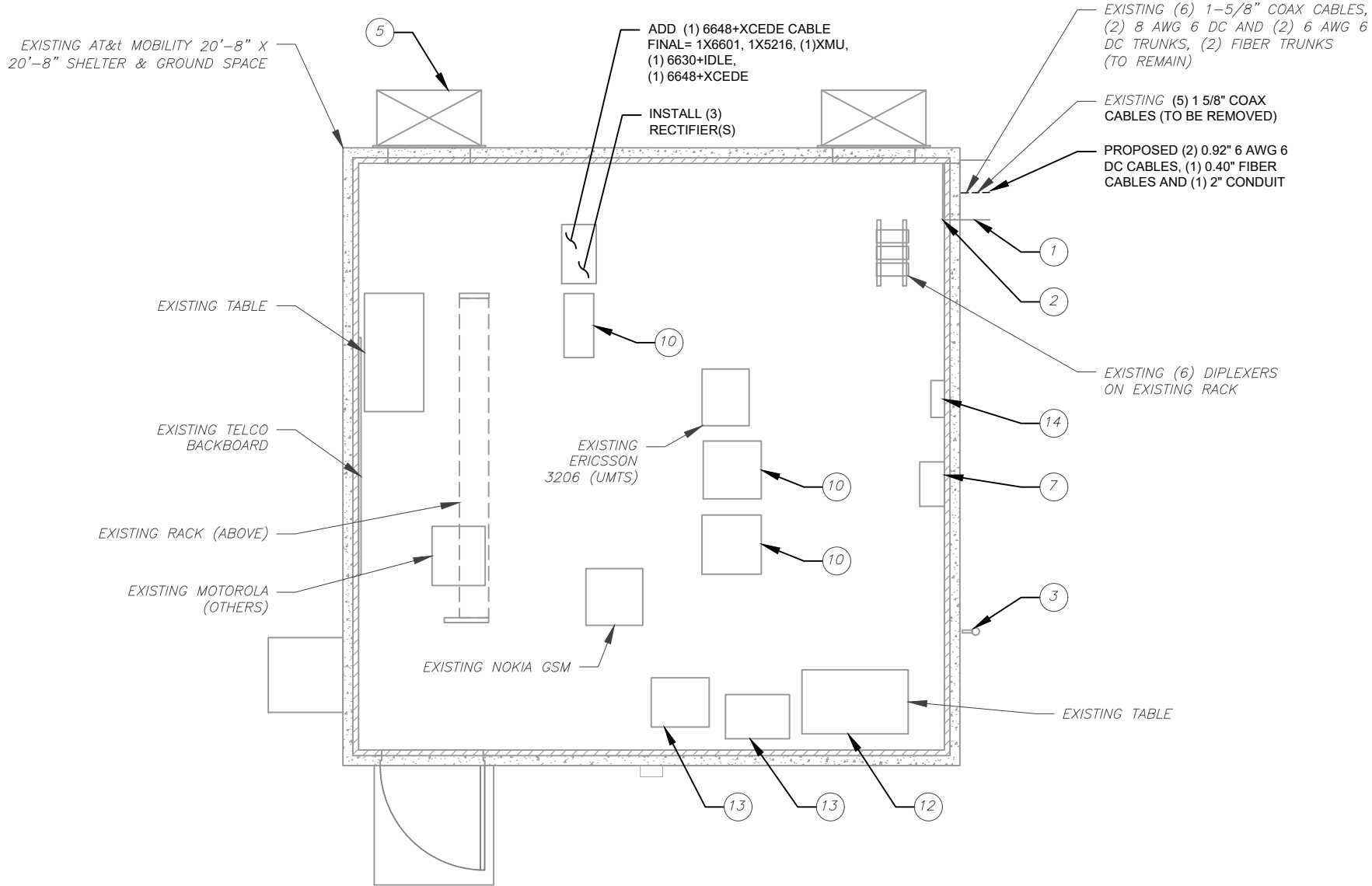


DATE DRAWN:	03/24/22
ATC JOB NO:	13753208_G5
CUSTOMER ID:	CTL01021
CUSTOMER #:	10034985

DETAILED SITE PLAN	
SHEET NUMBER: C-101	REVISION: 0

EXISTING EQUIPMENT

- 1 ICE BRIDGE
- 2 COAX PORT
- 3 GPS
- 4 COAX TRUNK CABLE
- 5 HVAC
- 6 CDMA CABINETS
- 7 MTS
- 8 STOOP
- 9 DOOR
- 10 FIF CABIENT
- 11 ERICSSON
- 12 BATTERIES
- 13 DC POWER
- 14 ELECTRIC PANEL



1 DETAILED EQUIPMENT LAYOUT
SCALE: N.T.S.



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-		AB	03/24/22

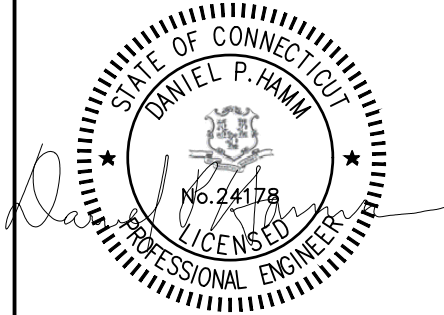
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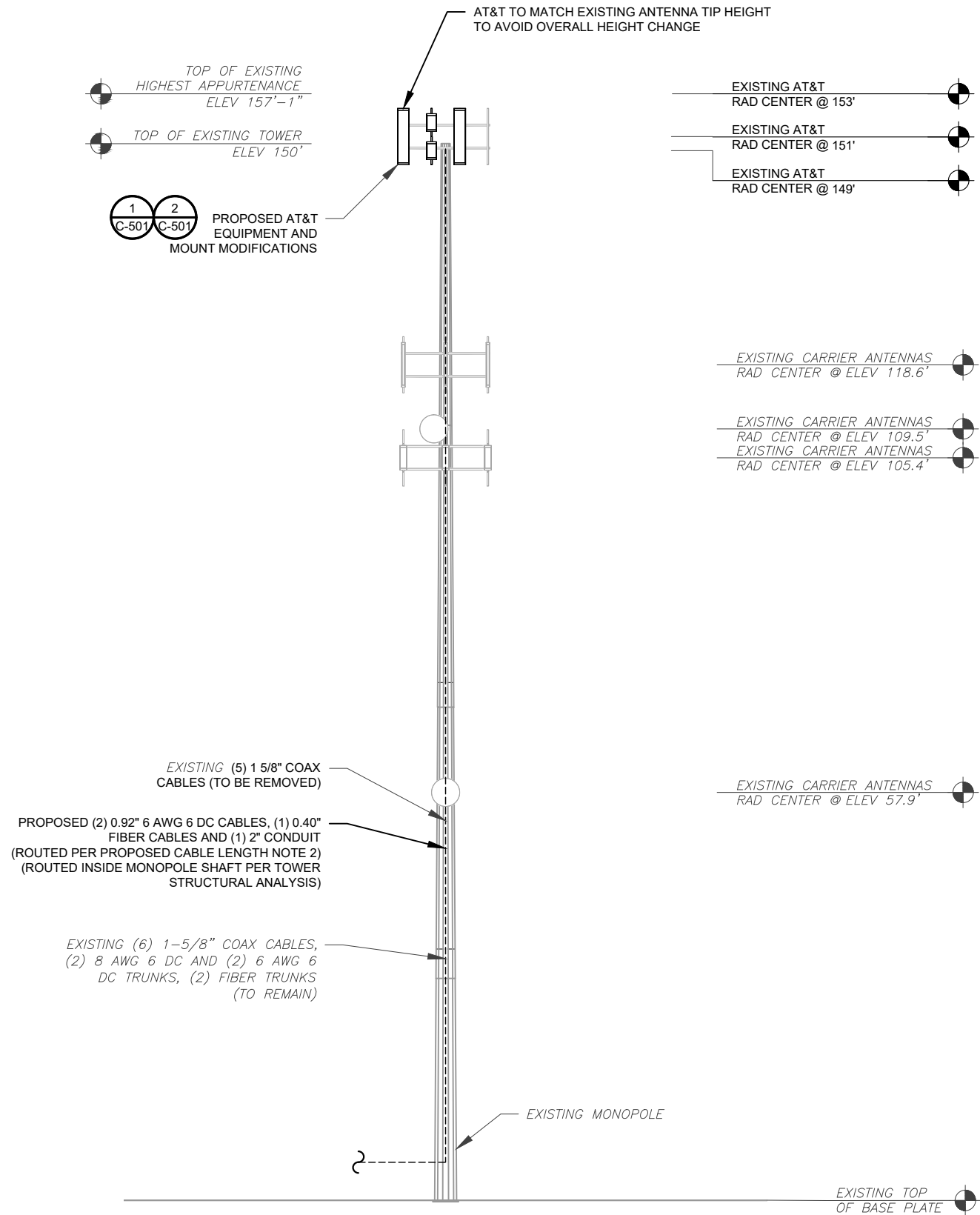
SEAL:



DATE DRAWN:	03/24/22
ATC JOB NO:	13753208_G5
CUSTOMER ID:	CTL01021
CUSTOMER #:	10034985

DETAILED EQUIPMENT LAYOUT

SHEET NUMBER:	REVISION:
C-102	-



1 TOWER ELEVATION
SCALE: N.T.S.

PER MOUNT ANALYSIS COMPLETED BY ATC, DATED 02/16/22, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT.

- TOWER NOTE:**
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS. EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.
 - ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.
 - TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)
 - TOWER ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR FULL TOWER LOADING.



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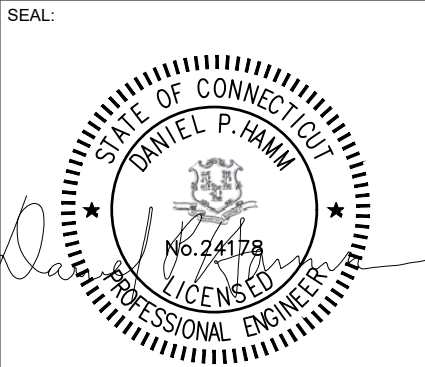
REV.	DESCRIPTION	BY	DATE
A	PRELIM	AB	03/28/22
0	FINALS	BB	06/21/22

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ATC SITE NAME:
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SITE ADDRESS:
77 TOWN FARM ROAD
ENFIELD,CT 06082-5152

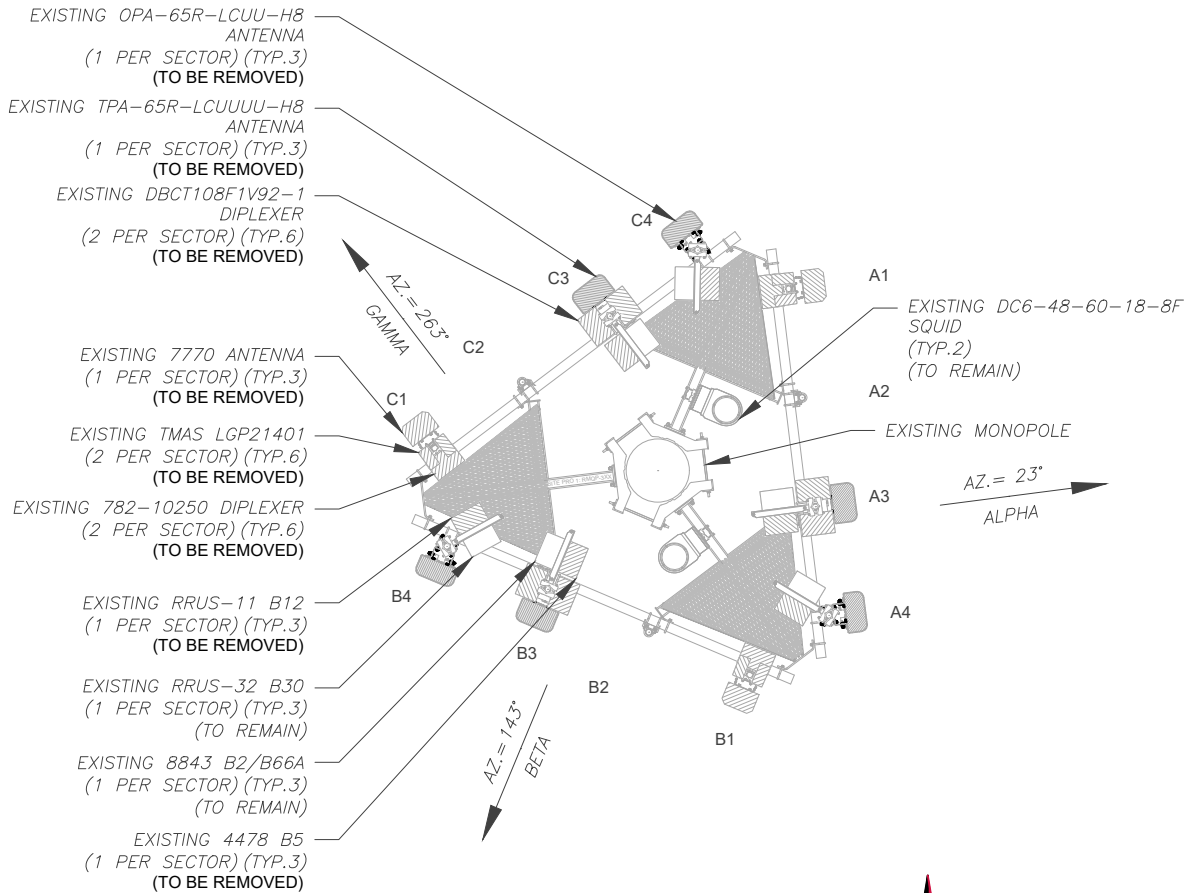


DATE DRAWN:	03/24/22
ATC JOB NO:	13753208_G5
CUSTOMER ID:	CTL01021
CUSTOMER #:	10034985

TOWER ELEVATION

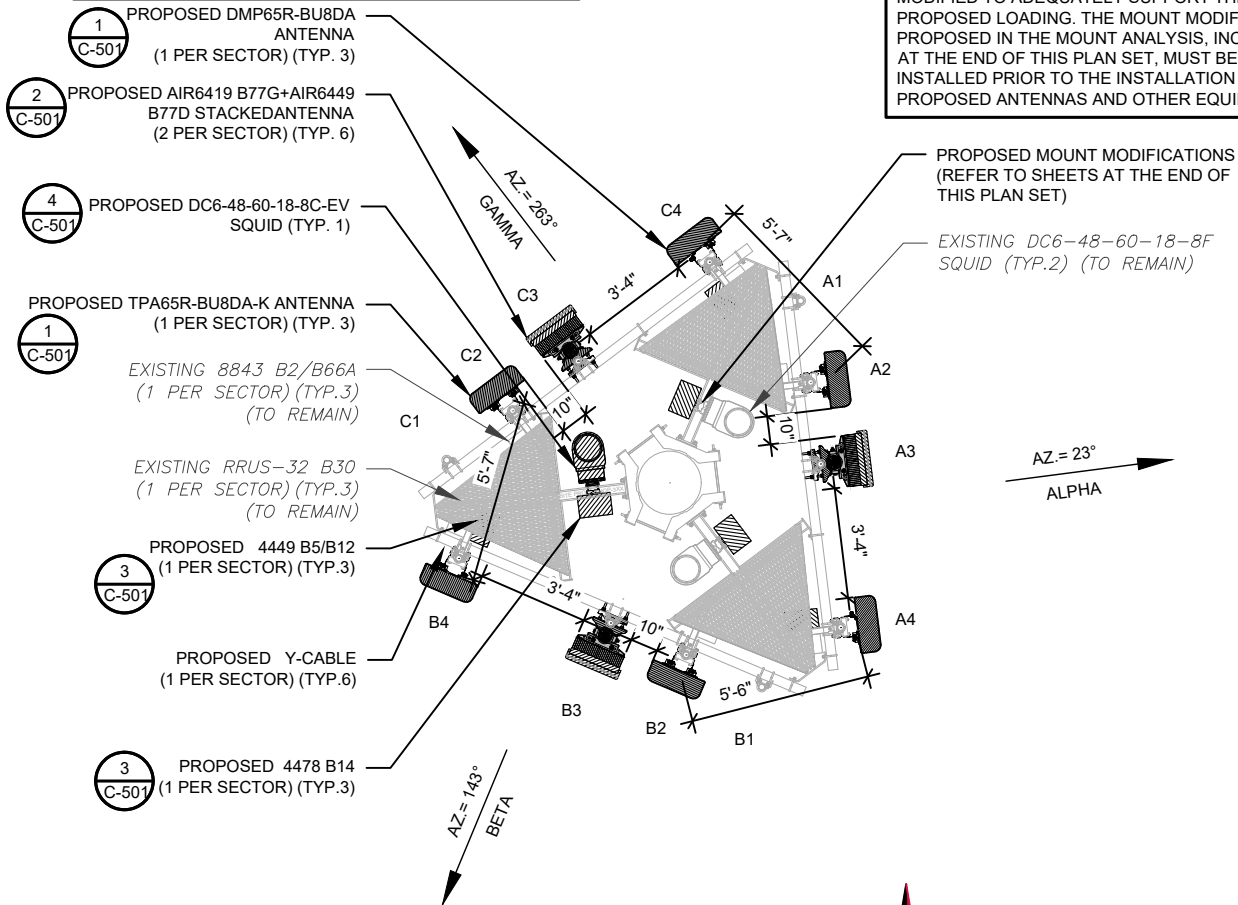
SHEET NUMBER: C-201	REVISION: 0
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EXISTING CONFIGURATIONS ARE BASED ON RFDS.
CONTRACTOR TO VERIFY EXISTING CONDITIONS.



1 CURRENT ANTENNA PLAN
SCALE: N.T.S.

CONTRACTOR SHALL RE-ORIENT ANTENNA MOUNT(S) AS NECESSARY TO ACHIEVE PROPOSED ANTENNA AZIMUTHS



2 FINAL ANTENNA PLAN
SCALE: N.T.S.

PROPOSED RRUs MUST BE
INSTALLED A MINIMUM OF 8"
AWAY FROM ALL ANTENNAS

EXISTING ANTENNA SCHEDULE								
LOCATION			ANTENNA SUMMARY			NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	154'	143°	A1	7770	-	RMV	TMA5 LGP21401 782-10250 DIPLEXER	RMV
	151'	23°	A2	-	-	EMPTY	-	-
	151'	23°	A3	TPA-65R-LCUUUU-H8	850, AWS	RMV	DBCT108F1V92-1 DIPLEXER 8843 B2/B66A RRU 4478 B5	RMV RMN RMV
	151'	23°	A4	OPA-65R-LCUU-H8	700, WCS	RMV	RRUS-11 B12 RRUS-32 B30	RMV RMN
BETA	154'	263°	B1	7770	-	RMV	TMA5 LGP21401 782-10250 DIPLEXER	RMV
	151'	143°	B2	-	-	EMPTY	-	-
	151'	143°	B3	TPA-65R-LCUUUU-H8	850, AWS	RMV	DBCT108F1V92-1 DIPLEXER 8843 B2/B66A RRU 4478 B5	RMV RMN RMV
	151'	143°	B4	OPA-65R-LCUU-H8	700, WCS	RMV	RRUS-11 B12 RRUS-32 B30	RMV RMN
GAMMA	154'	23°	C1	7770	-	RMV	TMA5 LGP21401 782-10250 DIPLEXER	RMV
	151'	263°	C2	-	-	EMPTY	-	-
	151'	263°	C3	TPA-65R-LCUUUU-H8	850, AWS	RMV	DBCT108F1V92-1 DIPLEXER 8843 B2/B66A RRU 4478 B5	RMV RMN RMV
	151'	263°	C4	OPA-65R-LCUU-H8	700, WCS	RMV	RRUS-11 B12 RRUS-32 B30	RMV RMN

- NOTES
- CONFIRM WITH AT&T REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
 - CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.
 - THE ANTENNA ORIENTATION PLAN IS A SCHEMATIC. ATC DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, ANTENNA AZIMUTHS, MOUNT CONFIGURATIONS AND TOWER ORIENTATION. SCALES SHOWN ARE FOR REFERENCE ONLY AND EXISTING DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO INSTALLATION AND NOTIFY ATC OF ANY DISCREPANCIES.
 - CONTRACTOR TO ENSURE PROPER SEPARATION IN ACCORDANCE WITH AT&T'S FIRSTNET REQUIREMENTS (SEE SHEET R-602)

FINAL ANTENNA SCHEDULE								
LOCATION			ANTENNA SUMMARY			NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	151'	23°	A1	-	-	EMPTY	-	-
	151'		A2	TPA65R-BU8DA-K	LTE 700/ B14/ PCS/ AWS	ADD	RRU 4478 B14 RRU 8843 B2/B66A	ADD RMN
	153' 149'		A3 UP A3 DN	AIR6419 B77G AIR6449 B77D	DOD C-BAND	ADD	-	-
	151'		A4	DMP65R-BU8DA	LTE 700 BC/ 850/ WCS	ADD	RRU 4449 B5/B12 RRUS-32 B30	ADD RMN
BETA	151'	143°	B1	-	-	EMPTY	-	-
	151'		B2	TPA65R-BU8DA-K	LTE 700/ B14/ PCS/ AWS	ADD	RRU 4478 B14 RRU 8843 B2/B66A	ADD RMN
	153' 149'		B3 UP B3 DN	AIR6419 B77G AIR6449 B77D	DOD C-BAND	ADD	-	-
	151'		B4	DMP65R-BU8DA	LTE 700 BC/ 850/ WCS	ADD	RRU 4449 B5/B12 RRUS-32 B30	ADD RMN
GAMMA	151'	263°	C1	-	-	EMPTY	-	-
	151'		C2	TPA65R-BU8DA-K	LTE 700/ B14/ PCS/ AWS	ADD	RRU 4478 B14 RRU 8843 B2/B66A	ADD RMN
	153' 149'		C3 UP C3 DN	AIR6419 B77G AIR6449 B77D	DOD C-BAND	ADD	-	-
	151'		C4	DMP65R-BU8DA	LTE 700 BC/ 850/ WCS	ADD	RRU 4449 B5/B12 RRUS-32 B30	ADD RMN

THIS PAGE CONTAINS CONFIDENTIAL, PROPRIETARY OR TRADE SECRET
INFORMATION EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW.

EXISTING FIBER DISTRIBUTION/SQUID						
EXISTING CABLING SUMMARY						
MODEL NUMBER	STATUS	COAX	CONDUIT	DC	FIBER	STATUS
-	-	(5) 1 5/8"	(3) 2"	-	-	RMV
(2) DC6-48-60-18-8F	RMN	(6) 1 5/8"	-	(2) 8 AWG6 (2) 6 AWG6	(2)	RMN

STATUS ABBREVIATIONS
RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
ADD: TO BE ADDED

CABLE LENGTHS FOR JUMPERS
JUNCTION BOX TO RRU: 15'
RRU TO ANTENNA: 10'

3 EQUIPMENT SCHEDULES

FINAL FIBER DISTRIBUTION/SQUID		FINAL CABLING SUMMARY				
MODEL NUMBER	STATUS	COAX	CONDUIT	DC	FIBER	STATUS
(2) DC6-48-60-18-8F	RMN	(6) 1 5/8"	(3) 2"	(2) 8 AWG6 (2) 6 AWG6	(2)	RMN
(1) DC6-48-60-18-8C-EV	ADD	-	(1) 2"	(2) 0.92" 6 AWG 6	(1) 0.40"	ADD



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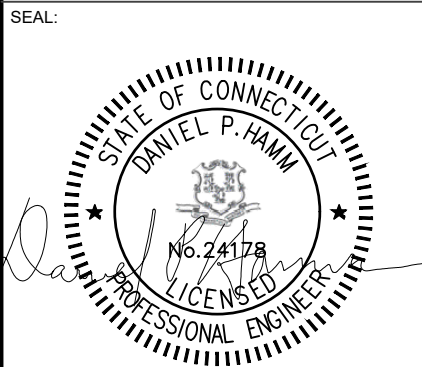
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0	FINALS	BB	06/21/22

ATC SITE NUMBER:
302489

ATC SITE NAME:
ENFD - ENFIELD

AT&T SITE NAME:
ENFIELD-TOWN FARM RD

SITE ADDRESS:
77 TOWN FARM ROAD
ENFIELD, CT 06082-5152

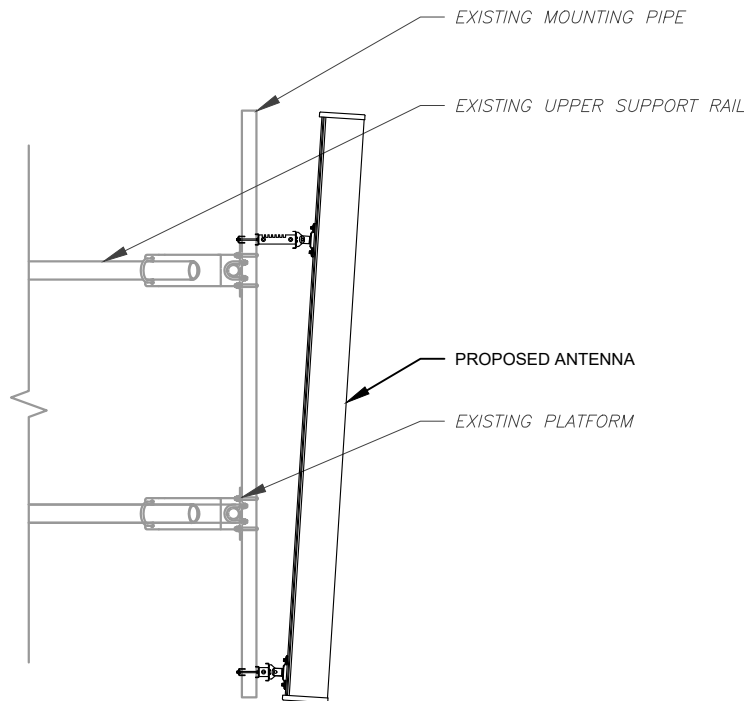


DATE DRAWN:	03/24/22
ATC JOB NO:	13753208_G5
CUSTOMER ID:	CTL01021
CUSTOMER #:	10034985

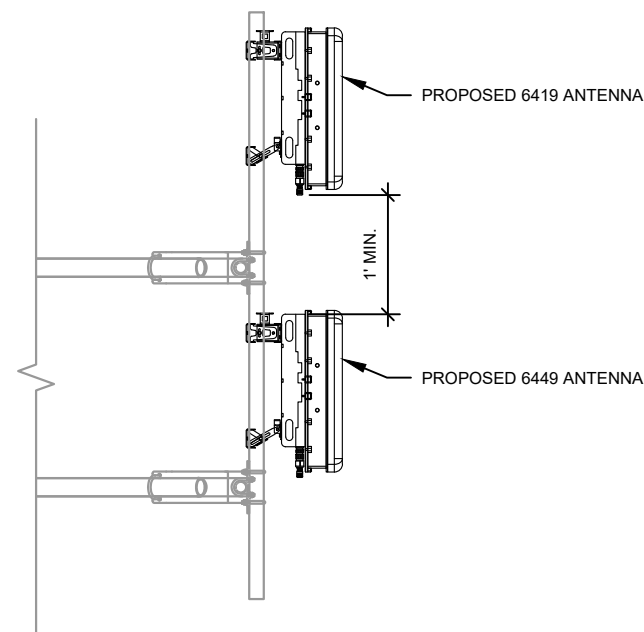
RF SCHEDULE AND ANTENNA INSTALLATION

SHEET NUMBER:
C-401

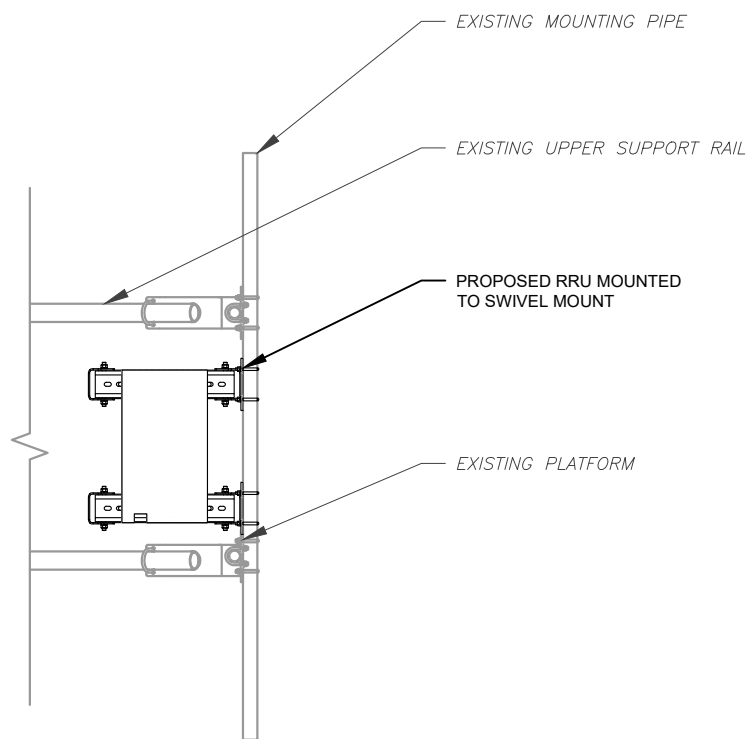
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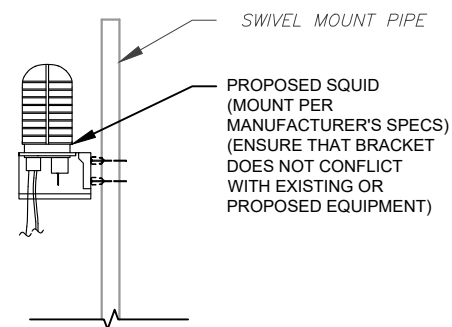
1 ANTENNA DETAIL
SCALE: N.T.S.



2 PROPOSED 5G ANTENNA MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.



3 PROPOSED RRU MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.



4 PROPOSED SQUID MOUNTING
SCALE: N.T.S.



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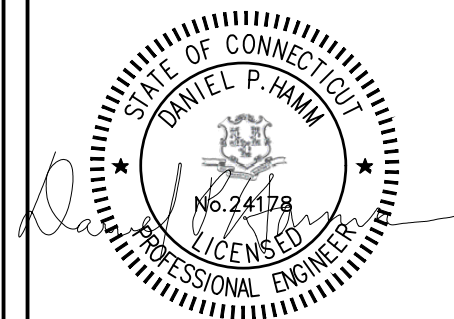
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302489

ATC SITE NAME:
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SITE ADDRESS:
77 TOWN FARM ROAD
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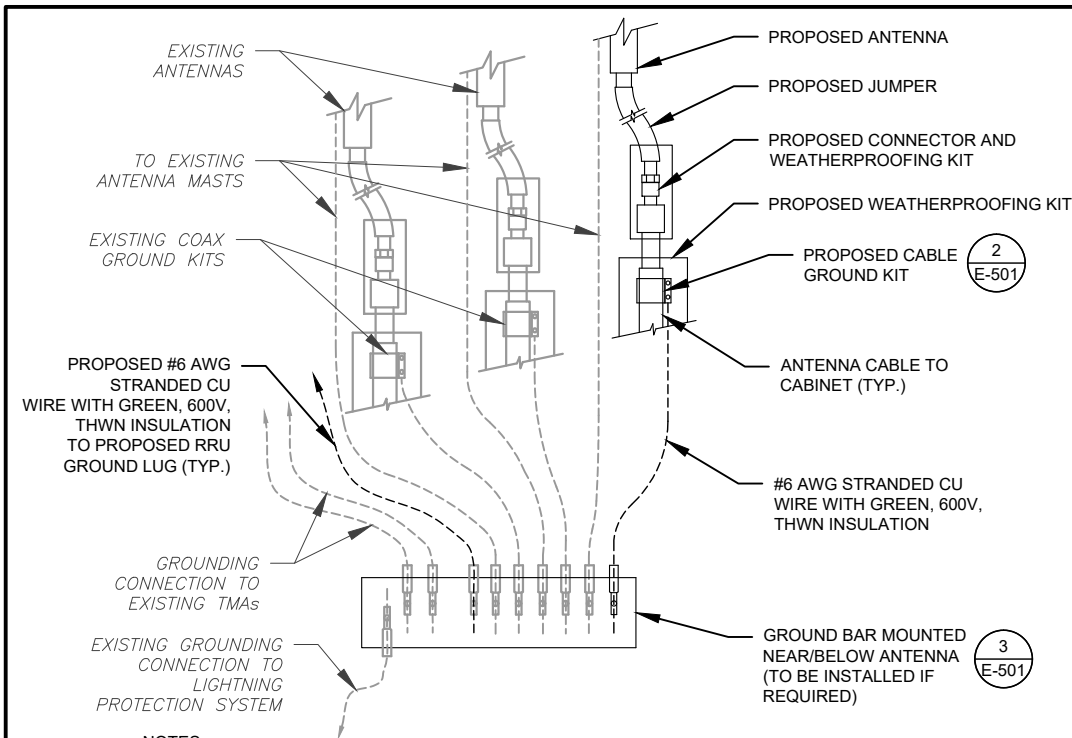
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DATE DRAWN:	03/24/22
ATC JOB NO:	13753208_G5
CUSTOMER ID:	CTL01021
CUSTOMER #:	10034985

CONSTRUCTION
DETAILS

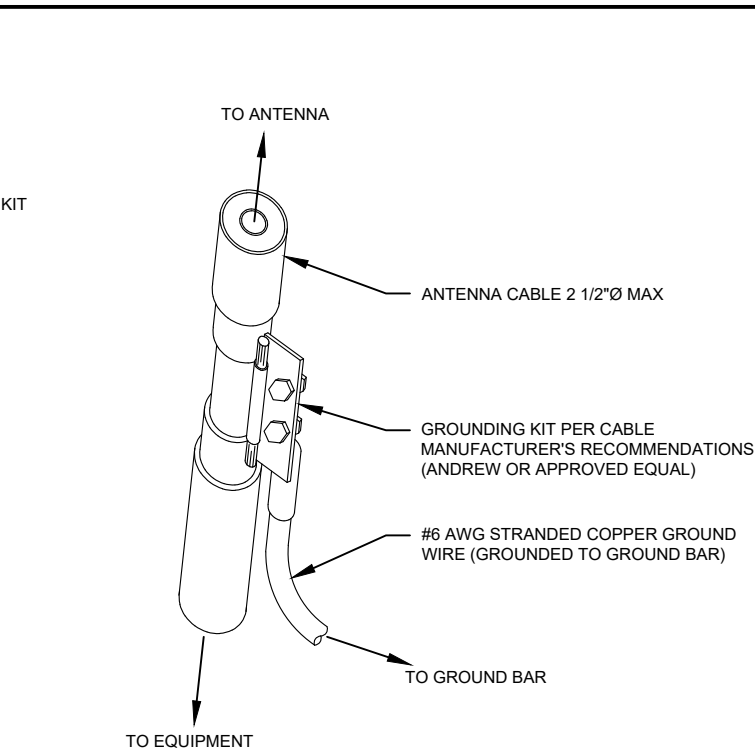
SHEET NUMBER:	REVISION:
C-501	0



NOTES:

- THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
- SITE GROUNDING SHALL COMPLY WITH AT&T GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH AT&T GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

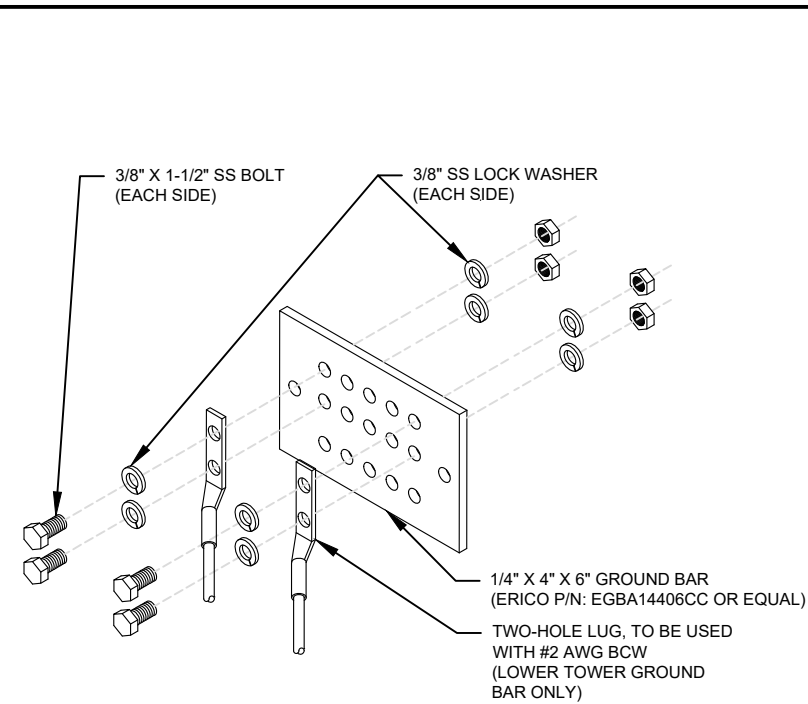
1 TYPICAL ANTENNA GROUNDING DIAGRAM
SCALE: N.T.S.



GROUND KIT NOTES:

- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
- CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.

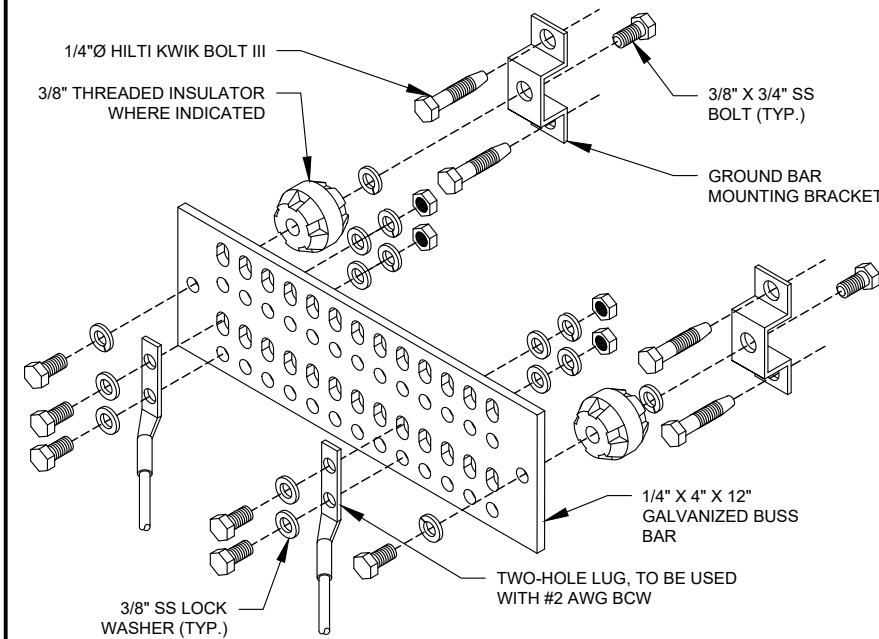
2 CABLE GROUND KIT CONNECTION DETAIL
SCALE: N.T.S.



GROUND BAR NOTES:

- GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
- GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

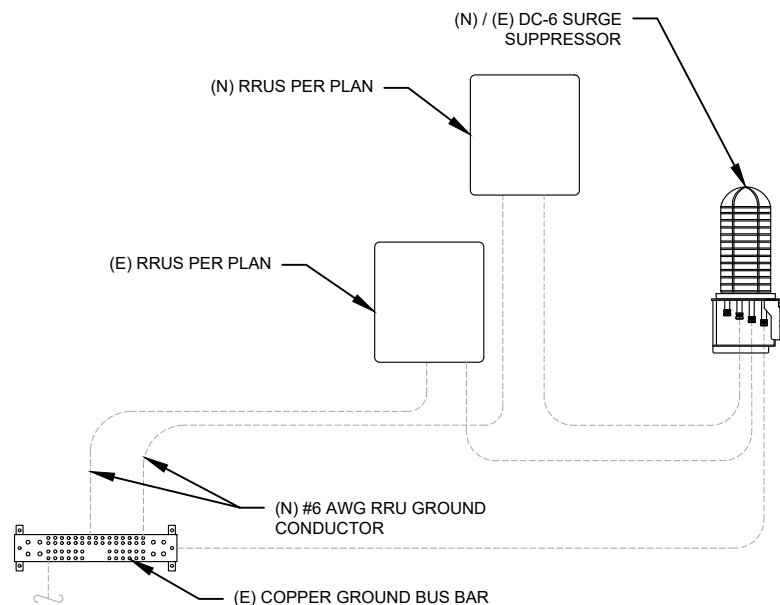
3 TOWER GROUND BAR DETAIL
SCALE: N.T.S.



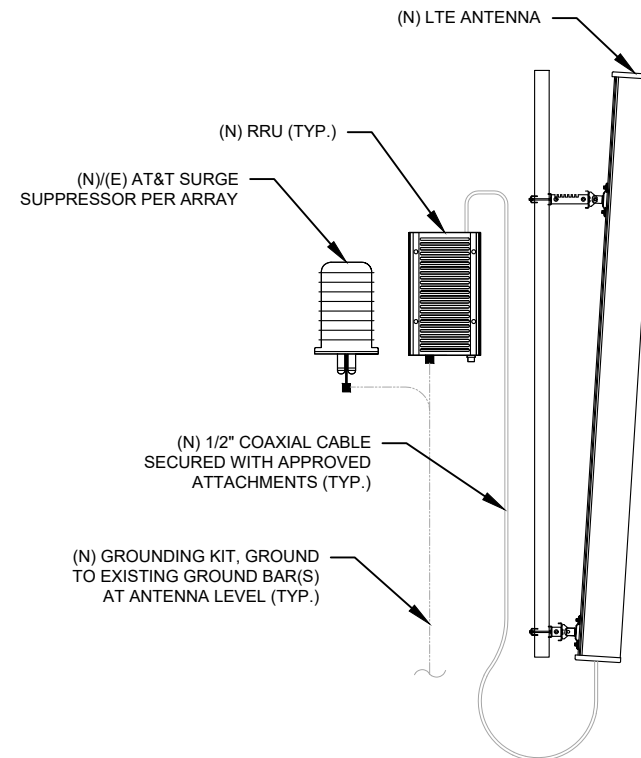
GROUND BAR NOTES

- GROUND KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
- GROUND BAR SHALL BE BOLTED TO STRUCTURAL MEMBER OR ANCHORED TO CONCRETE SLAB W/ HILTI KWIK BOLT III.

4 MAIN GROUND BAR DETAIL
SCALE: N.T.S.



5 RRU GROUNDING
SCALE: N.T.S.



6 ANTENNA/RRU GROUNDING
SCALE: N.T.S.



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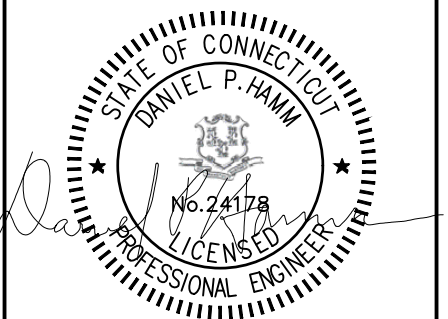
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SEAL:



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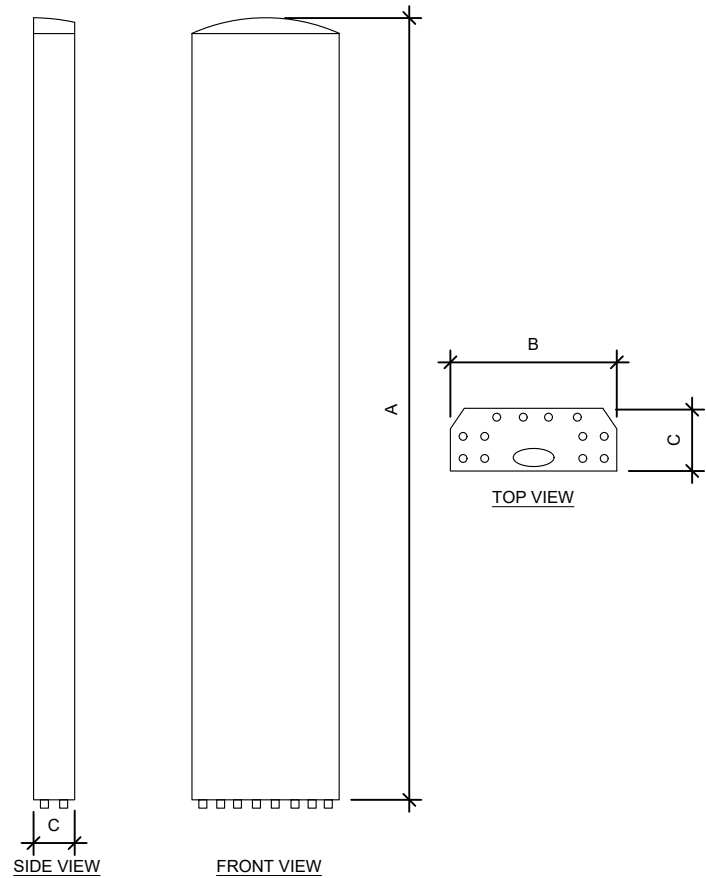
GROUNDING DETAILS

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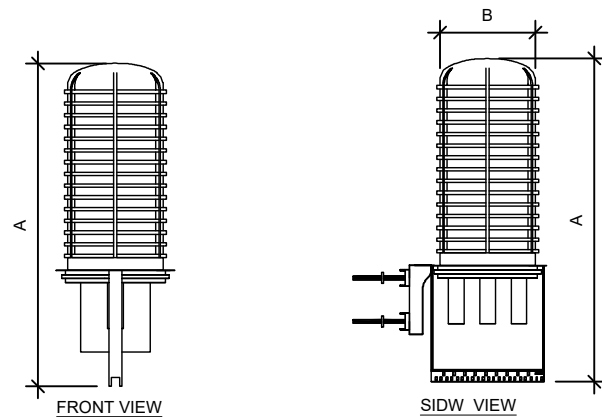
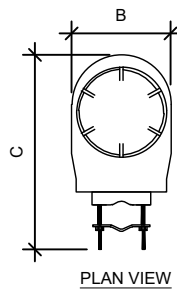
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REVISION:

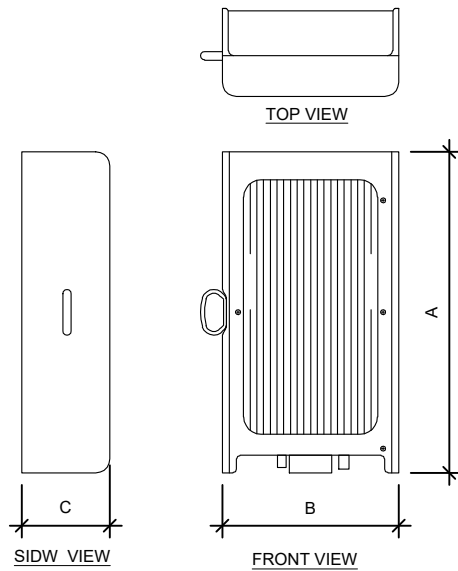
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ANTENNA SPECIFICATIONS				
ANTENNA MODEL	A	B	C	WEIGHT (LBS)
TPA65R-BU8D	96.0"	21.0"	7.8"	82.5
Air 6449 B77D	30.4"	15.9"	8.1"	81.6
AIR 6419 B77G	28.3"	16.1"	7.9"	66.1
DMP65R-BU8D	96"	20.7"	7.7"	95.7



RAYCAP SPECIFICATIONS				
RAYCAP MODEL	A	B	C	WEIGHT (LBS)
DC6-48-60-18-8C-EV	31.4"	18.3"	10.2"	16.0



RRU SPECIFICATIONS				
RRU MODEL	A	B	C	WEIGHT (LBS)
4449 B5, B12	17.9"	13.2"	9.4"	71.0
4478 B14	18.1"	13.4"	8.3"	59.4

RF REQUIREMENTS FOR 700 B14 FIRSTNET, 700 B12, 700D B29 ANTENNA SEPARATION

- ❑ Horizontal separation (side to side of antenna): $\geq 3'$
- ❑ Vertical separation (between the tips of the antennas): $> 3'$
- ❑ Inter-sector separation: $> 4'$ between the center of the antenna backplanes.



- ❑ Please note additional horizontal separation may be required if B14 antennas azimuth are different from others or antennas are severely angled with respect to the mount.
- ❑ Typical 3' horizontal separation can tolerate skew angle up to 6° .



NOTE: THIS SHEET CREATED BY OTHERS AND PROVIDED
BY REQUEST OF CUSTOMER WITHOUT EDIT.

SUPPLEMENTAL

SHEET NUMBER:
R-602

REVISION:
0



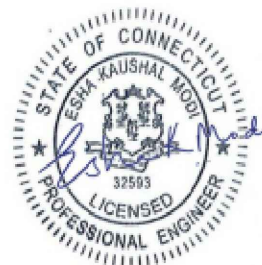
Eng. Number 13753208_C8_01
February 16, 2022
Page 1

Mount Analysis Report

ATC Site Name : Enfd - Enfield, CT
ATC Site Number : 302489
Engineering Number : 13753208_C8_01
Mount Elevation : 151.5 ft
Carrier : AT&T Mobility
Carrier Site Name : MRCTB056379
Carrier Site Number : CTL01021
Site Location : 77 Town Farm Road
Enfield, CT 06082-5152
41.96591325 , -72.55271225
County : Hartford
Date : February 16, 2022
Max Usage : 76%
Result : Contingent Pass

Prepared By:
Max Carter
Structural Engineer I

Reviewed By:



Authorized by "EOR"
16 Feb 2022 03:58:15

COA: PEC.0001553

Introduction

The purpose of this report is to summarize results of the mount analysis performed for AT&T Mobility at 151.5 ft.

Supporting Documents

Specifications Sheet	Site Pro 1 RMQP-4xx, dated July 9, 2015
Site Specific Study	Project #10034985, dated April 24, 2019
Radio Frequency Data Sheet	RFDS ID #CTL01021, dated January 27, 2022
Reference Photos	Site photos from 2019

Analysis

This mount was analyzed using American Tower Corporation's Mount Analysis Program and RISA-3D

Basic Wind Speed:	116 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	77 mph (3-Second Gust) w/ 1 13/20" radial ice concurrent
Codes:	ANSI/TIA-222-H
Exposure Category:	C
Risk Category:	II
Topographic Factor Procedure:	Method 3
Topographic Category:	1
Spectral Response:	Ss = 0.174, S1 = 0.055
Site Class:	D - Stiff Soil
Live Loads:	Lm = 500 lbs

* Wind pressures have been determined per the site-specific climatic study in accordance with ASCE 7-16 Section 26.5.3, IBC Section 1609.3, and TIA-222-H Section 2.6.6.2.3.

* Ice and concurrent wind pressures have been determined per the site-specific climatic study in accordance with ASCE 7-16 Section 10.1.1, IBC Section 1614, and TIA-222-H Section 2.6.4.1.

* Based on experience, it has been determined that the Lv load cases will not control over Lm load cases in platform mount analyses. Therefore, these load cases have been excluded from this analysis.

Conclusion

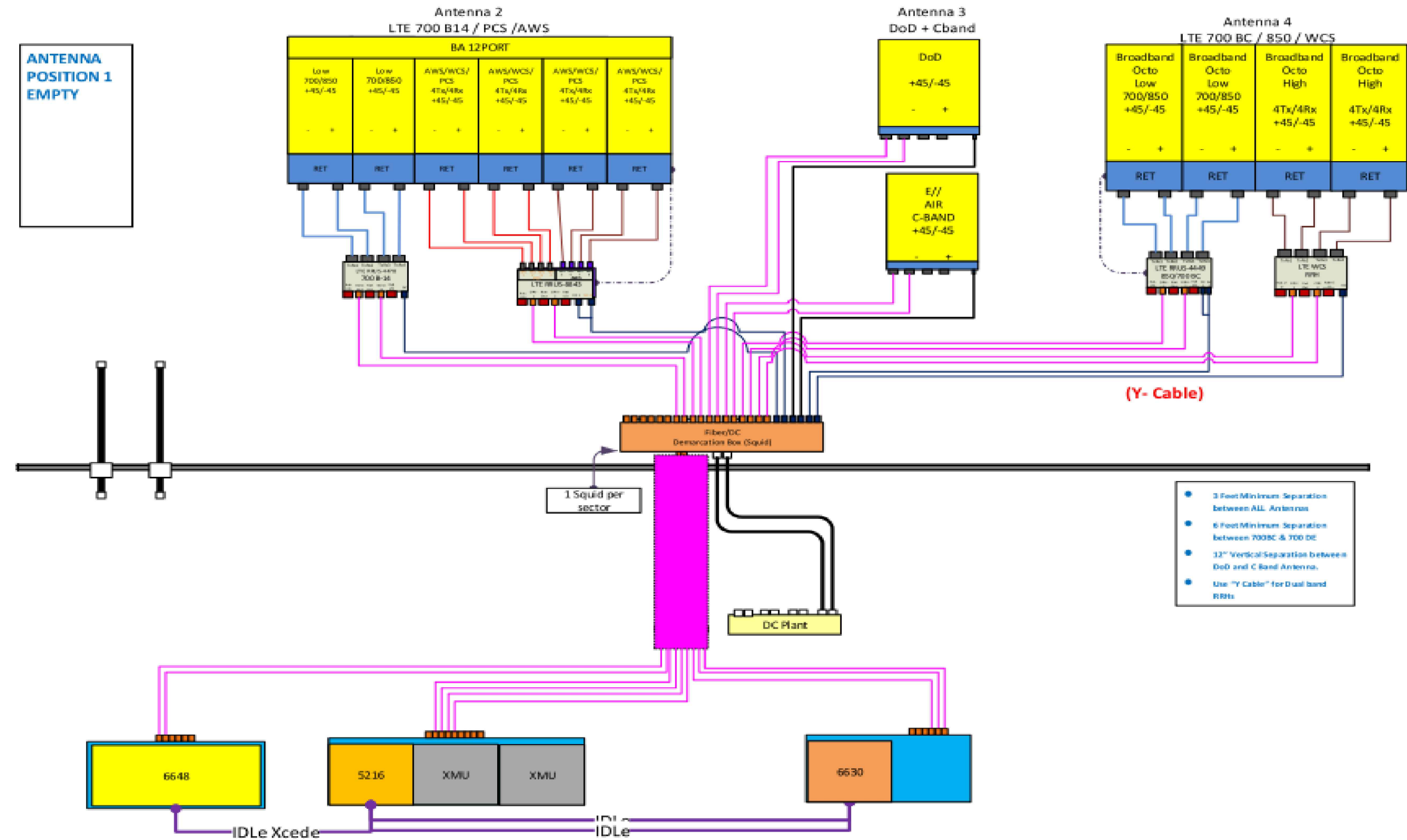
Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above provided the modifications listed below are completed:

- Install P2 (2.375" x 60") antenna mounting pipe (Mount Pipe M, N, and O) with Site Pro 1 SCX7-U (or approved equivalent) crossover plate kits.

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.

SUPPLEMENTAL

SHEET NUMBER: R-603	REVISION: 0
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June 27, 2022

Ben Winter
Assistant Town Planner
820 Enfield Street
Enfield, CT 06082

Re: Exempt Modification Application – AT&T Site 13753208
AT&T Mobility Telecommunications Facility @ 77 Town Farm Road, Enfield, CT 06082

Dear Mr. Winter:

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 Drawings:

Remove nine (9) antennas, six (6) RRHs, six (6) TMAs, twelve diplexers and five (5) coax cables;

Install mount modifications, twelve (12) antennas, six (6) RRHs, one (1) squid, two (2) DC cables, six (6) Y cables and one (1) two inch conduit.

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 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, Executive Director of the CSC at 860-972-2935.

Respectfully Submitted,

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

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



June 27, 2022

Ellen Zoppo-Sassu, Town Manager
820 Enfield St.
Enfield, CT 06082

Re: Exempt Modification Application – AT&T Site 13753208
AT&T Mobility Telecommunications Facility @ 77 Town Farm Road, Enfield, CT 06082

Dear Ms. Zoppo-Sassu:

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 Drawings:

Remove nine (9) antennas, six (6) RRHs, six (6) TMAs, twelve diplexers and five (5) coax cables;

Install mount modifications, twelve (12) antennas, six (6) RRHs, one (1) squid, two (2) DC cables, six (6) Y cables and one (1) two inch conduit.

This letter is intended to serve as the required notice to both the property owner and to the chief official of the municipality. 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, the 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 circular blue stamp or seal.

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



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 13753208
AT&T Mobility Telecommunications Facility @ 77 Town Farm Road, Enfield, CT 06082

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 Drawings:

Remove nine (9) antennas, six (6) RRHs, six (6) TMAs, twelve diplexers and five (5) coax cables;

Install mount modifications, twelve (12) antennas, six (6) RRHs, one (1) squid, two (2) DC cables, six (6) Y cables and one (1) two inch conduit.

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, the 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



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The Town of Enfield - Property Owner &
Ellen Zoppo-Sassu - Enfield Town Manager



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Woburn, MA

American Tower Corporation - Tower Operator/Owner

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June 30, 10:04AM
Enfield, CT

View details on USPS

Call 1-800-275-8777

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Ben Winter - Enfield Assistant Town Planner

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