STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
www.ct.gov/csc

VIA ELECTRONIC MAIL

November 29, 2018

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103

RE: **EM-VER-015-181105** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 623 Pine Street, Bridgeport, Connecticut.

Dear Attorney Baldwin:

The Connecticut Siting Council (Council) is in receipt of your correspondence of November 28, 2018 submitted in response to the Council's November 6, 2018 notification of an incomplete request for exempt modification with regard to the above-referenced matter.

The submission renders the request for exempt modification complete and the Council will process the request in accordance with the Federal Communications Commission 60-day timeframe.

Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/CMW/emr

Robidoux, Evan

From: Mayo, Rachel <rmayo@RC.com>
Sent: Wednesday, November 28, 2018 2:08 PM
To: Bachman, Melanie; Robidoux, Evan; CSC-DL Siting Council
Cc: Baldwin, Kenneth; Mayo, Rachel
Subject: FW: Council Incomplete Letter for EM-VER-015-181105-PineSt-Bridgeport
Attachments: em-ver-015-181105_incompleteltr_pinest.pdf; Bridgeport SW CT ANTMO_TA.PDF

Attached is an updated structural as requested.
Please let me know if you need any additional information

Rachel A. Mayo
Land Use Analyst

Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103
Direct 860.275.8213 | Fax 860.275.8299
rmayo@rc.com | www.rc.com
Bio | Contact Card

Robinson+Cole
Boston | Hartford | New York | Providence | Stamford
Albany | Los Angeles | Miami | New London

From: Robidoux, Evan [mailto:Evan.Robidoux@ct.gov]
Sent: Wednesday, November 07, 2018 8:51 AM
To: Baldwin, Kenneth
Cc: CSC-DL Siting Council; Mayo, Rachel
Subject: Council Incomplete Letter for EM-VER-015-181105-PineSt-Bridgeport
Please see the attached correspondence.
Evan Robidoux
Clerk Typist
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

STRUCTURAL ANALYSIS REPORT

for

Dewberry
600 Parsipanny Road Suite 301
Parispanny, NJ 07054

Bridgeport SW CT
KM No. 181110.00

250’ Self-Support Tower
623 Pine Street
Bridgeport, CT 06605

Prepared By:

KM CONSULTING ENGINEERS, INC.
262 Upper Ferry Road Ewing, NJ 08628
Ph: (609) 538-0400 www.kmengr.com

November 26, 2018

Prepared to ANSI/TIA-222-G-4 December 2014
Structural Standards for Antenna Supporting
Structures and Antennas

Dewberry
Bridgeport SW CT

TABLE OF CONTENTS

Load Case No. 1: Existing tower superstructure with existing inventory and proposed Verizon Wireless installation.

1.0 EXECUTIVE SUMMARY

Structure

Owner: Radio Communications Tower

Location: 623 Pine Street
Bridgeport, CT 06605

Manufacturer: Rohn
Eng. File No. 3767AE dated 3/25/99

Equipment

Existing tower inventory plus the proposed installation are detailed in Section 2.0 “Tower Inventory.”

Synopsis

Load Case No. 1: The existing tower superstructure with the current inventory and proposed Verizon Wireless installation.

The existing tower superstructure and base foundation have sufficient capacity and therefore meet the current ANSI/TIA-222-G design standards. The tower superstructure is rated at 97.6% and the foundation is rated at 52.4%.

2.0 TOWER INVENTORY

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
yaggi in radom	256	VHLP2.5-11-4WH (Clearwire)	121
Beacon	256	VFA6-RRU (Sprint)	118
Omni antenna	256	VFA6-RRU (Sprint)	118
Omni antenna	256	VFA6-RRU (Sprint)	118
Omni antenna	256	NNVV-65B-R4 (Sprint)	118
Omni antenna	256 - 239	NNVV-65B-R4 (Sprint)	118
Top Platform	256	NNVV-65B-R4 (Sprint)	118
Omni antenna	248 - 238	2.5G MAA-AAHC(64T64R) (Sprint)	118
mounting frames w/stable bar (T-Mobile)	180	2.5G MAA-AAHC(64T64R) (Sprint)	118
		2.5G MAA-AAHC(64T64R) (Sprint)	118
mounting frames w/stable bar (T-Mobile)	180	(2) 800 MHz RRH (Sprint)	118
		(2) 800 MHz RRH (Sprint)	118
mounting frames w/stable bar (T-Mobile)	180	(2) 800 MHz RRH (Sprint)	118
Ericsson AIR21 B2A/B4P (T-Mobile)	180	1900 MHz RRH (Sprint)	118
Ericsson AIR21 B2A/B4P (T-Mobile)	180	1900 MHz RRH (Sprint)	118
Ericsson AIR21 B2A/B4P (T-Mobile)	180	1900 MHz RRH (Sprint)	118
AIR 3246 B66 (T-Mobile)	180	B25 RRH4x30 PCS (Verizon)	110
AIR 3246 B66 (T-Mobile)	180	B25 RRH4x30 PCS (Verizon)	110
AIR 3246 B66 (T-Mobile)	180	B25 RRH4x30 PCS (Verizon)	110
APXVAARR24 43-U-NA20 (T-Mobile)	180	B13 RRH4x30-R (Verizon)	110
APXVAARR24 43-U-NA20 (T-Mobile)	180	B13 RRH4x30-R (Verizon)	110
APXVAARR24 43-U-NA20 (T-Mobile)	180	B13 RRH4x30-R (Verizon)	110
RRUS32 B2 (T-Mobile)	180	B66 RRH 4x45 (Verizon)	110
RRUS32 B2 (T-Mobile)	180	B66 RRH 4x45 (Verizon)	110
RRUS32 B2 (T-Mobile)	180	B66 RRH 4x45 (Verizon)	110
twin style 1BX TMA (T-Mobile)	180	(2) APL-866513-42T9 (Verizon)	110
twin style 1BX TMA (T-Mobile)	180	(2) APL-866513-42T6 (Verizon)	110
twin style 1BX TMA (T-Mobile)	180	(2) APL-866513-42T9 (Verizon)	110
Radio 4449 B12 B71 (T-Mobile)	180	Rohn 6'x15' Boom Gate (Verizon)	110
Radio 4449 B12 B71 (T-Mobile)	180	Distribution Box (Verizon)	110
Radio 4449 B12 B71 (T-Mobile)	180	GPS antenna (Verizon)	110
(2) MetroPCS Antenna (MetroPCS)	138	Distribution Box (Verizon)	110
(2) MetroPCS Antenna (MetroPCS)	138	JAHH-65B-R3B (Verizon)	110
(2) MetroPCS Antenna (MetroPCS)	138	JAHH-65B-R3B (Verizon)	110
mounting frames w/stable bar (MetroPCS)	138	JAHH-65B-R3B (Verizon)	110
		(2) JAHH-65B-R3B on mount (Verizon)	110
mounting frames w/stable bar (MetroPCS)	138	(2) JAHH-65B-R3B on mount (Verizon)	110
		(2) JAHH-65B-R3B on mount (Verizon)	110
mounting frames w/stable bar (MetroPCS)	138	Rohn 6'x15' Boom Gate (Verizon)	110
		Rohn 6'x15' Boom Gate (Verizon)	110
VHLP1-23-2WH (Clearwire)	121	4' Side Arm	100
VHLP1-23-2WH (Clearwire)	121	TV 65 antenna	100
		TV 65 antenna	100

Proposed Verizon Wireless Installation:

*(9) JAHH-65B-R3B panel antennas @ 110’ AGL
*(3) B13 RRH4x30’s @ 110’ AGL
*(3) B66 RRH 4x45’s @ 110’ AGL
*(3) BSAMNT-SBS-2-2 antenna mounts @ 110’ AGL
*Removal of (6) HBXX-6516DS-A2M panel antennas @ 110’ AGL
*Removal of (3) Kathrein 800 10736V01 panel antennas @ 110’ AGL
*Removal of (3) B13 RRH2x40’s @ 110’ AGL
*Removal of (3) B66 RRH2x40’s @ 110’ AGL

3.0 COMMENTARY

Our scope of work is to determine if the existing structure is capable of withstanding the additional stresses/forces imposed by the installation of the proposed Verizon Wireless equipment noted in the tower inventory. The tower is a 250' tall Rohn self-support tower with a triangular platform located at the top.

Tower member sizes, layout and foundation information was taken from previous structural analysis by KM Consulting Engineers, Inc. (KMCE) dated 11/1/18. Existing antenna inventory and coax cable layout was also taken from the above mentioned analysis. Proposed equipment was obtained from a Verizon Wireless RFDS dated 2/28/18 from CD's by Dewberry Engineers Inc. dated 7/10/18. Proposed Sprint equipment obtained from a structural analysis report by Destek Engineering, LLC dated 8/20/18 and CD's by Com-Ex Consultants, LLC dated 5/9/18 is included in the analysis.

The following report will provide analytical calculations and commentary regarding the capacity of the proposed tower and subsequent recommendations.

4.0 ANALYSIS PROCEDURE

KM Consulting Engineers, Inc. carried out their structural analysis by correlating field inspection and tower member data into proprietary software designed specifically for communication tower analysis.

These programs run in conjunction with the guidelines set down in the ANSI/TIA-222-G Standard entitled "Structural Standards for Antenna Supporting Structures and Antennas."

The existing tower is analyzed by placing wind forces on the structure in 30° positional increments around the tower (i.e. wind pressure directly onto the tower corners, faces and parallel to the faces). This enables the user to "create" a three-dimensional representation, yielding results for worst case scenarios. In effect, the production of these results allows the user to study the structural integrity of the tower when influenced by wind forces from any direction.

The proceeding report includes analysis for the tower with the addition of antennas in the scenarios stated. For clarity, the analysis shall include worst case loadings and a typical elevation view with maximum foundation loads tabulated.

Should the client require to be furnished with a full copy of our analysis, we will gladly do so.

Codes and Standards

ACI - American Concrete Institute - Building Code Requirements for Structural Concrete (ACI 318-11), 2011

AISC - American Institute of Steel Construction - Manual of Steel Construction, Allowable Stress Design, 14th edition, 2011

TIA - Telecommunications Industry Association – ANSI/TIA-222-G-4 Structural Standards for Antenna Supporting Structures and Antennas, 2014

CSBC - Connecticut State Building Code 2018

5.0 TOWER ANALYSIS RESULTS

The tower was analyzed for the inventory detailed in Section 2.0 “Tower Inventory”.

The basic wind speed of 97 MPH with no radial ice in accordance with ANSI/TIA-222-G is taken from Appendix N in the 2018 Connecticut State Building Code for the nominal design wind speed for the municipality of Bridgeport, CT. The basic wind speed of 50 MPH concurrent with ¾” design ice thickness is taken from the ANSI/TIA-222-G listing applicable for Fairfield County, CT. Additional criteria include Structure Class II, Exposure Category C, and Topographic Category 1.

Load Case No. 1: Existing inventory and the proposed Verizon Wireless installation of (9) JAHH-65B-R3B panel antennas, (3) B13 RRH4x30’s, (3) B66 RRH 4x45’s, and (3) BSAMNT-SBS-2-2 antenna mounts and the removal of (6) HBXX-6516DS-A2M panel antennas, (3) Kathrein 800 10736V01 panel antennas, (3) B13 RRH2x40’s, and (3) B66 RRH2x40’s.

The existing tower superstructure and base foundation have sufficient capacity and therefore meet the current ANSI/TIA-222-G design standards. The tower superstructure is rated at 97.6% and the foundation is rated at 66.2%.

Table 1. Base Foundation Rating

Force	Actual (kip·ft)	Capacity (kip·ft)	% Capacity
Overturning Moment	11,580	17,504	**66.2%**

6.0 RECOMMENDATIONS

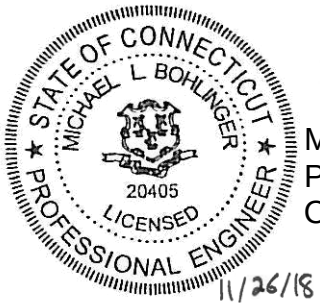
Further to our calculations, we conclude that the tower superstructure and base foundation have adequate capacity and therefore meet the current ANSI/TIA-222-G design standards. The tower is acceptable to support the proposed Verizon Wireless installation.

Please do not hesitate to contact our office with any questions or concerns regarding this report.

Sincerely,
KM CONSULTING ENGINEERS, INC.

Domenic Aversa, PE
Project Manager

Reviewed and Approved by:

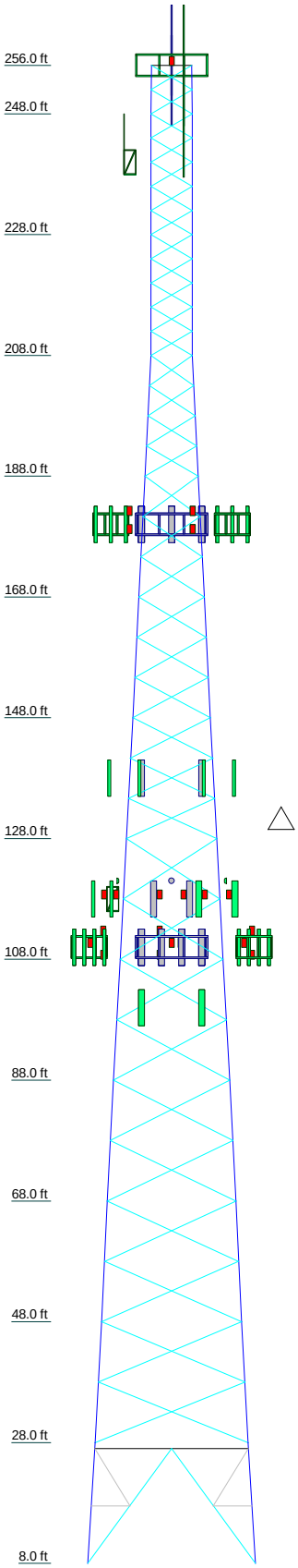


Michael L. Bohlinger, PE
Principal
CT License No. 20405

7.0 APPENDIX

LOAD CASE 1

Section	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13
Legs	A	ROHN 3 EH	ROHN 4 EH	ROHN 5 EH		ROHN 6 EH		ROHN 8 EHS	ROHN 8 EH		P10x.5		
Leg Grade						A572-50							
Diagonals	B		L2x2x1/4		L2 1/2x2 1/2x1/4		L3x3x1/4	L4x4x3/8	L4x4x0.31		L5x5x3/8		ROHN 3 STD
Diagonal Grade						A572-50							
Top Girts	C						N.A.						ROHN 3 STD
Red. Horizontals							N.A.						ROHN 1.5 STD
Red. Diagonals							N.A.						ROHN 1.5 STD
Red. Hips							N.A.						ROHN 1.5 STD
Inner Bracing							N.A.						ROHN 3 STD
Face Width (ft)	6.604	6.9	6.833		8.916	10.916	12.916	14.989	17.0833	19.25	21.25	23.229	25.333
# Panels @ (ft)	478.2	12 @ 4		4 @ 5		9 @ 6.66667				10 @ 10			1 @ 19
Weight (lb)	49211.9	1379.5	1660.8	1965.2	2590.2	2923.5	3083.2	4195.6	4629.8	6622.3	6887.4	7164.6	5631.7



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
yaggi in radom	256	VHLP2.5-11-4WH (Clearwire)	121
Beacon	256	VFA6-RRU (Sprint)	118
Omni antenna	256	VFA6-RRU (Sprint)	118
Omni antenna	256	VFA6-RRU (Sprint)	118
Omni antenna	256	NNVV-65B-R4 (Sprint)	118
Omni antenna	256 - 239	NNVV-65B-R4 (Sprint)	118
Top Platform	256	NNVV-65B-R4 (Sprint)	118
Omni antenna	248 - 238	2.5G MAA-AAHC(64T64R) (Sprint)	118
mounting frames w/stable bar (T-Mobile)	180	2.5G MAA-AAHC(64T64R) (Sprint)	118
		2.5G MAA-AAHC(64T64R) (Sprint)	118
mounting frames w/stable bar (T-Mobile)	180	(2) 800 MHz RRH (Sprint)	118
mounting frames w/stable bar (T-Mobile)	180	(2) 800 MHz RRH (Sprint)	118
		(2) 800 MHz RRH (Sprint)	118
Ericsson AIR21 B2A/B4P (T-Mobile)	180	1900 MHz RRH (Sprint)	118
Ericsson AIR21 B2A/B4P (T-Mobile)	180	1900 MHz RRH (Sprint)	118
Ericsson AIR21 B2A/B4P (T-Mobile)	180	1900 MHz RRH (Sprint)	118
AIR 3246 B66 (T-Mobile)	180	B25 RRH4x30 PCS (Verizon)	110
AIR 3246 B66 (T-Mobile)	180	B25 RRH4x30 PCS (Verizon)	110
AIR 3246 B66 (T-Mobile)	180	B25 RRH4x30 PCS (Verizon)	110
APXVAARR24 43-U-NA20 (T-Mobile)	180	B13 RRH4x30-R (Verizon)	110
APXVAARR24 43-U-NA20 (T-Mobile)	180	B13 RRH4x30-R (Verizon)	110
APXVAARR24 43-U-NA20 (T-Mobile)	180	B13 RRH4x30-R (Verizon)	110
RRUS32 B2 (T-Mobile)	180	B66 RRH 4x45 (Verizon)	110
RRUS32 B2 (T-Mobile)	180	B66 RRH 4x45 (Verizon)	110
RRUS32 B2 (T-Mobile)	180	B66 RRH 4x45 (Verizon)	110
twin style 1BX TMA (T-Mobile)	180	(2) APL-866513-42T9 (Verizon)	110
twin style 1BX TMA (T-Mobile)	180	(2) APL-866513-42T6 (Verizon)	110
twin style 1BX TMA (T-Mobile)	180	(2) APL-866513-42T9 (Verizon)	110
Radio 4449 B12 B71 (T-Mobile)	180	Rohn 6'x15' Boom Gate (Verizon)	110
Radio 4449 B12 B71 (T-Mobile)	180	Distribution Box (Verizon)	110
Radio 4449 B12 B71 (T-Mobile)	180	GPS antenna (Verizon)	110
(2) MetroPCS Antenna (MetroPCS)	138	Distribution Box (Verizon)	110
(2) MetroPCS Antenna (MetroPCS)	138	JAHH-65B-R3B (Verizon)	110
(2) MetroPCS Antenna (MetroPCS)	138	JAHH-65B-R3B (Verizon)	110
mounting frames w/stable bar (MetroPCS)	138	JAHH-65B-R3B (Verizon)	110
		(2) JAHH-65B-R3B on mount (Verizon)	110
mounting frames w/stable bar (MetroPCS)	138	(2) JAHH-65B-R3B on mount (Verizon)	110
		(2) JAHH-65B-R3B on mount (Verizon)	110
mounting frames w/stable bar (MetroPCS)	138	Rohn 6'x15' Boom Gate (Verizon)	110
		Rohn 6'x15' Boom Gate (Verizon)	110
VHLP1-23-2WH (Clearwire)	121	4' Side Arm	100
VHLP1-23-2WH (Clearwire)	121	TV 65 antenna	100
		TV 65 antenna	100

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	ROHN 3 STD	C	L3x3x1/4
B	L1 3/4x1 3/4x3/16		

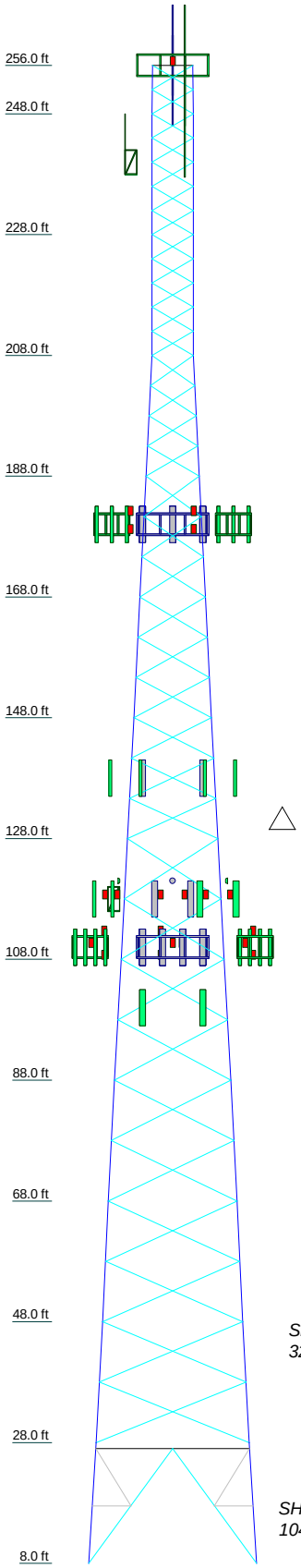
MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi			

KM Consulting Engineers Inc.
262 Upper Ferry Road
Ewing, NJ 08628
Phone: (609) 538-0400
FAX:

Job: ***Bridgeport LC1***
Project: ***250' Rohn Self Support Tower***
Client: Dewberry | Drawn by: DCA | App'd:
Code: TIA-222-G | Date: 11/26/18 | Scale: NTS
Path: K:\Dewberry\Bridgeport\Engineering\Bridgeport LC1.en | Dwg No. E-1

Section	T13	T12	T11	T10	T9	T8	T7	T6	T5	T4	T3	T2	T1
Legs		P10x.5			ROHN 8 EH	ROHN 8 EHS		ROHN 6 EH		ROHN 5 EH	ROHN 4 EH	ROHN 3 EH	A
Leg Grade							A572-50						
Diagonals	ROHN 3 STD		L5x5x3/8		L4x4x0.31	L4x4x3/8	L3x3x1/4		L2 1/2x2 1/2x1/4		L2x2x1/4		B
Diagonal Grade							A572-50						
Top Girts	ROHN 3 STD						N.A.						C
Red. Horizontals	ROHN 1.5 STD						N.A.						
Red. Diagonals	ROHN 1.5 STD						N.A.						
Red. Hips	ROHN 1.5 STD						N.A.						
Inner Bracing	ROHN 3 STD						N.A.						
Face Width (ft)	25.333	23.229	21.25	19.25	17.0833	14.989	12.916	10.916	8.916	6.833	6.9		6.604
# Panels @ (ft)	1 @ 19			10 @ 10			9 @ 6.66667			4 @ 5		12 @ 4	
Weight (lb)	49211.9	7164.6	6887.4	6622.3	4629.8	4195.6	3083.2	2923.5	2590.2	1965.2	1660.8	1379.5	478.2



SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	ROHN 3 STD	C	L3x3x1/4
B	L1 3/4x1 3/4x3/16		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi			

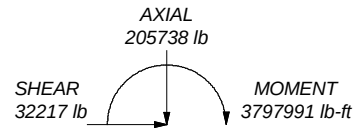
TOWER DESIGN NOTES

1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 97 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 50 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 97.6%

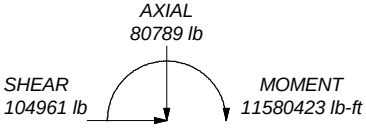
ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:
DOWN: 507355 lb
SHEAR: 62570 lb

UPLIFT: -437388 lb
SHEAR: 56577 lb



TORQUE 16101 lb-ft
50 mph WIND - 0.7500 in ICE



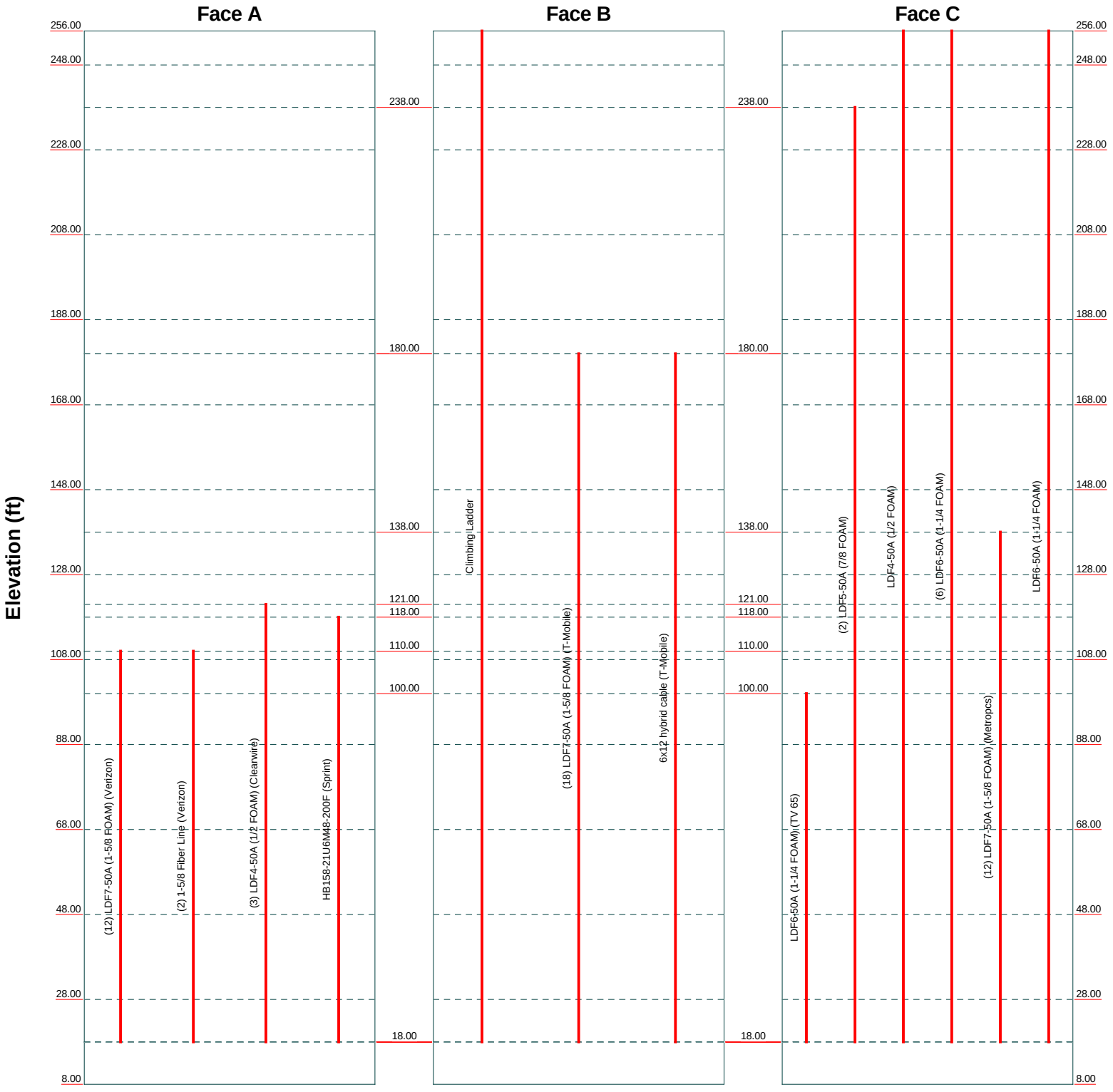
TORQUE 60722 lb-ft
REACTIONS - 97 mph WIND

KM Consulting Engineers Inc.
262 Upper Ferry Road
Ewing, NJ 08628
Phone: (609) 538-0400
FAX:

Job: ***Bridgeport LC1***			
Project: ***250' Rohn Self Support Tower***			
Client: Dewberry	Drawn by: DCA	App'd:	
Code: TIA-222-G	Date: 11/26/18	Scale: NTS	
Path: K:\Dewberry\Bridgeport\Engineering\Bridgeport LC1.er		Dwg No. E-1	

Feed Line Distribution Chart
8' - 256'

Round | Flat | App In Face | App Out Face | Truss Leg

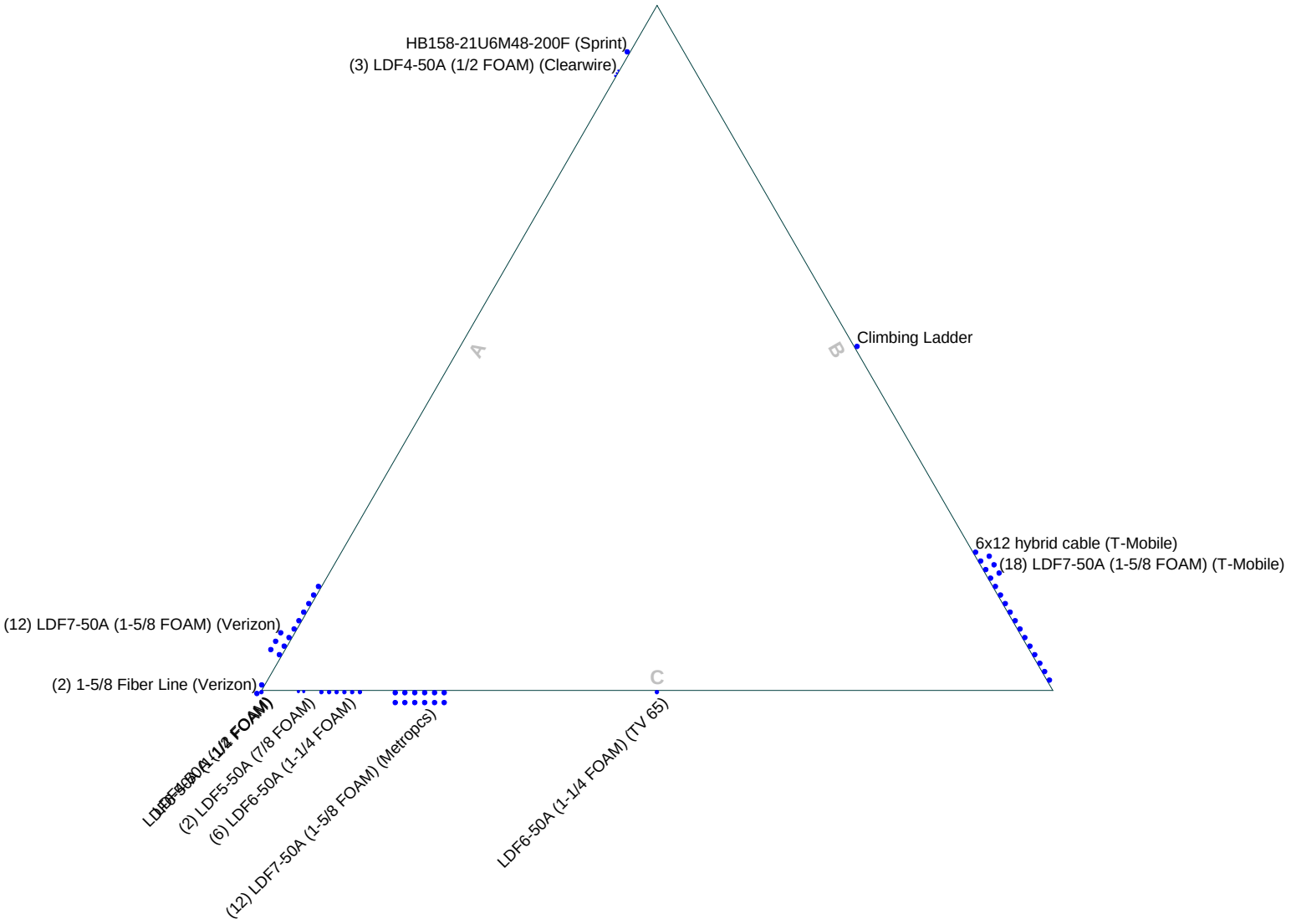


KM Consulting Engineers Inc.
262 Upper Ferry Road
Ewing, NJ 08628
Phone: (609) 538-0400
FAX:

Job: ***Bridgeport LC1***			
Project: ***250' Rohn Self Support Tower***			
Client: Dewberry	Drawn by: DCA	App'd:	
Code: TIA-222-G	Date: 11/26/18	Scale: NTS	
Path: K:\Dewberry\Bridgeport\Engineering\Bridgeport LC1.en		Dwg No. E-7	

Feed Line Plan

Round Flat App In Face App Out Face

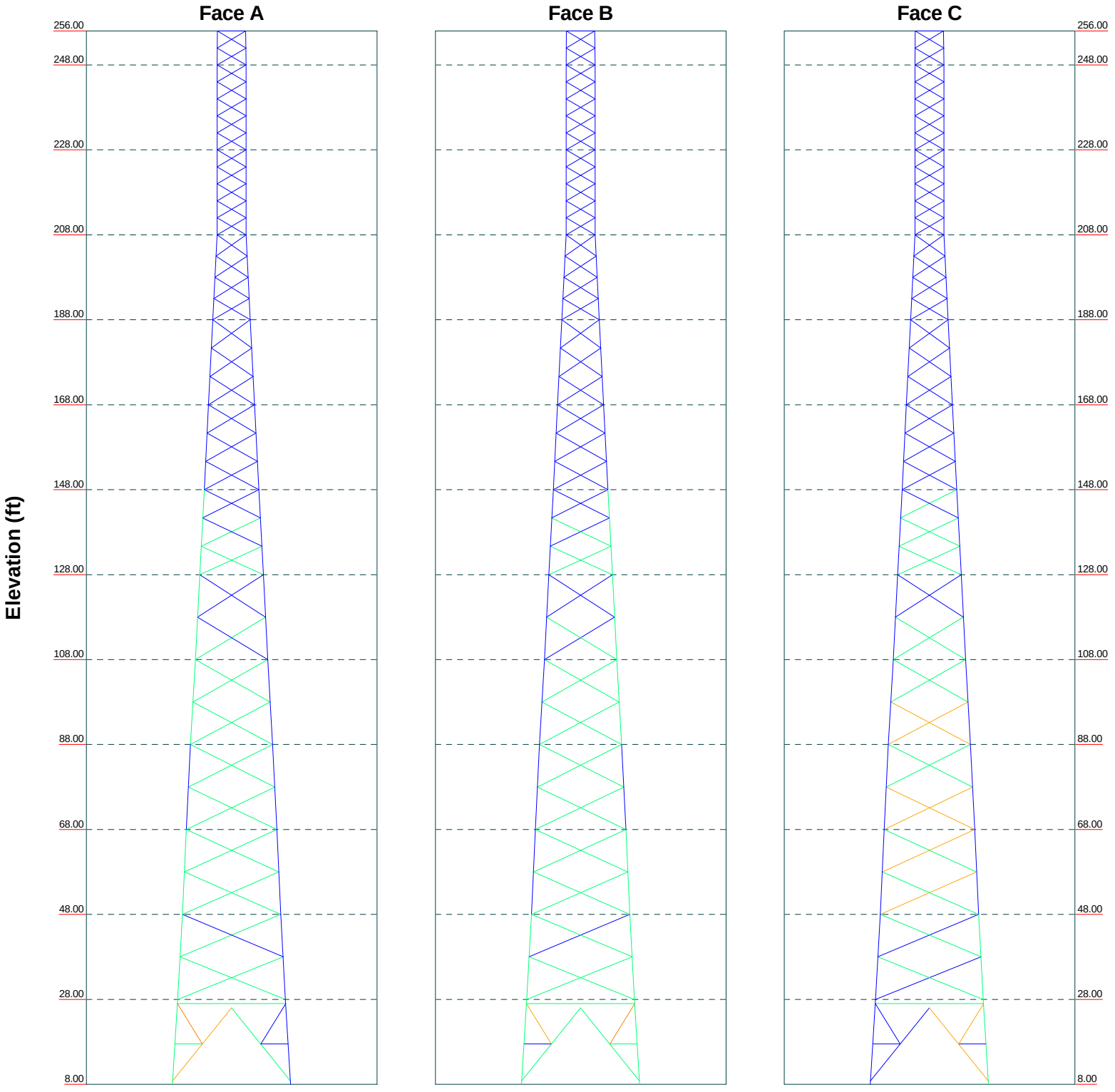


KM Consulting Engineers Inc.
262 Upper Ferry Road
Ewing, NJ 08628
Phone: (609) 538-0400
FAX:

Job: ***Bridgeport LC1***			
Project: ***250' Rohn Self Support Tower***			
Client: Dewberry	Drawn by: DCA	App'd:	
Code: TIA-222-G	Date: 11/26/18	Scale: NTS	
Path: K:\Dewberry\Bridgeport\Engineering\Bridgeport LC1.en		Dwg No. E-7	

Stress Distribution Chart
8' - 256'

> 100% | 90%-100% | 75%-90% | 50%-75% | < 50% Overstress



KM Consulting Engineers Inc.
262 Upper Ferry Road
Ewing, NJ 08628
Phone: (609) 538-0400
FAX:

Job: ***Bridgeport LC1***			
Project: ***250' Rohn Self Support Tower***			
Client: Dewberry	Drawn by: DCA	App'd:	
Code: TIA-222-G	Date: 11/26/18	Scale: NTS	
Path: K:\Dewberry\Bridgeport\Engineering\Bridgeport LC1.er		Dwg No. E-8	

Section Capacity Table

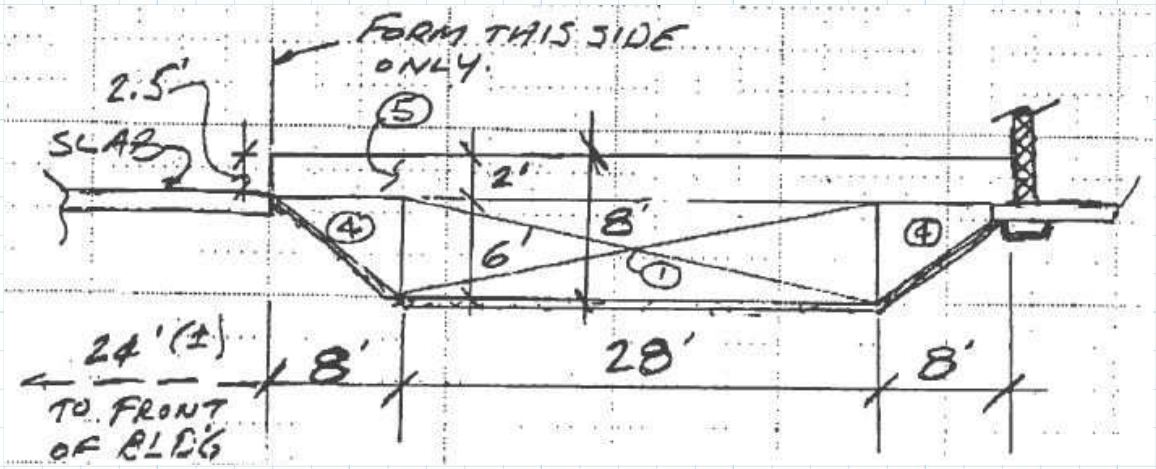
Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T1	256 - 248	Leg	ROHN 3 STD	3	-4732.64	88543.60	5.3	Pass
		Diagonal	L1 3/4x1 3/4x3/16	8	-1824.82	7836.45	23.3	Pass
		Top Girt	L3x3x1/4	4	-677.51	19705.80	3.4	Pass
T2	248 - 228	Leg	ROHN 3 EH	21	-27573.00	119117.00	23.1	Pass
		Diagonal	L2x2x1/4	23	-3332.44	15423.50	21.6	Pass
							28.4 (b)	
T3	228 - 208	Leg	ROHN 4 EH	54	-62339.10	183589.00	34.0	Pass
		Diagonal	L2x2x1/4	59	-4712.16	16011.80	29.4	Pass
							39.3 (b)	
T4	208 - 188	Leg	ROHN 5 EH	87	-85978.40	254372.00	33.8	Pass
		Diagonal	L2x2x1/4	89	-3049.79	9442.17	32.3	Pass
T5	188 - 168	Leg	ROHN 6 EH	114	-112411.00	343100.00	32.8	Pass
		Diagonal	L2 1/2x2 1/2x1/4	116	-5801.65	11996.10	48.4	Pass
T6	168 - 148	Leg	ROHN 6 EH	135	-145574.00	343100.00	42.4	Pass
		Diagonal	L3x3x1/4	137	-7018.89	16173.10	43.4	Pass
							49.0 (b)	
T7	148 - 128	Leg	ROHN 6 EH	156	-181285.00	343092.00	52.8	Pass
		Diagonal	L3x3x1/4	158	-8529.67	12584.10	67.8	Pass
T8	128 - 108	Leg	ROHN 8 EHS	177	-220180.00	386381.00	57.0	Pass
		Diagonal	L4x4x3/8	179	-12825.00	30486.60	42.1	Pass
							59.3 (b)	
T9	108 - 88	Leg	ROHN 8 EH	192	-271543.00	505517.00	53.7	Pass
		Diagonal	L4x4x0.31	194	-16047.00	21205.70	75.7	Pass
							76.8 (b)	
T10	88 - 68	Leg	P10x.5	207	-327778.00	668659.00	49.0	Pass
		Diagonal	L5x5x3/8	209	-19084.70	43484.70	43.9	Pass
							78.4 (b)	
T11	68 - 48	Leg	P10x.5	222	-386905.00	668663.00	57.9	Pass
		Diagonal	L5x5x3/8	224	-21433.10	37294.00	57.5	Pass
							84.7 (b)	
T12	48 - 28	Leg	P10x.5	237	-446324.00	668640.00	66.8	Pass
		Diagonal	L5x5x3/8	239	-23772.10	31978.80	74.3	Pass
T13	28 - 8	Leg	P10x.5	252	-464433.00	711505.00	65.3	Pass
		Diagonal	ROHN 3 STD	259	-33250.50	38509.50	86.3	Pass
		Top Girt	ROHN 3 STD	253	-19880.10	31030.70	64.1	Pass
		Redund Horz 1 Bracing	ROHN 1.5 STD	266	-8059.90	13888.30	58.0	Pass
		Redund Diag 1 Bracing	ROHN 1.5 STD	272	-7041.49	7217.78	97.6	Pass
		Redund Hip 1 Bracing	ROHN 1.5 STD	278	-96.89	12002.20	0.8	Pass
		Redund Hip Diagonal Bracing	ROHN 1.5 STD	279	-65.40	2211.89	3.0	Pass
		Inner Bracing	ROHN 3 STD	282	-344.33	29213.70	16.3	Pass
							Summary	
							Leg (T12) 66.8	Pass
							Diagonal (T13) 86.3	Pass
							Top Girt (T13) 64.1	Pass
							Redund Horz 1 Bracing (T13) 58.0	Pass
							Redund Diag 1 Bracing (T13) 97.6	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
						Redund Hip 1 Bracing (T13)	0.8	Pass
						Redund Hip Diagonal Bracing (T13)	3.0	Pass
						Inner Bracing (T13)	16.3	Pass
						Bolt Checks	84.7	Pass
						RATING =	**97.6**	**Pass**

KM Consulting Engineers, Inc.
262 Upper Ferry Road
Ewing, NJ 08628

Tel.: (609) 538-0400
www.kmengr.com
Email: info@kmengr.com

Foundation Calculations



Volume of Foundation:

$V_1 := 6\ \text{ft} \cdot 28\ \text{ft} \cdot 31\ \text{ft} = 5208.0\ \text{ft}^3$

$V_2 := -1 \cdot \frac{1}{2} \cdot 2.83\ \text{ft} \cdot 4\ \text{ft} \cdot 28\ \text{ft} \cdot 2 = -317.0\ \text{ft}^3$

$V_3 := 1\ \text{ft} \cdot 1.67\ \text{ft} \cdot 44\ \text{ft} \cdot 2 = 147.0\ \text{ft}^3$

$V_4 := \frac{1}{2} \cdot 6\ \text{ft} \cdot 8\ \text{ft} \cdot 31\ \text{ft} \cdot 2 = 1488.0\ \text{ft}^3$

$V_5 := 2\ \text{ft} \cdot 33\ \text{ft} \cdot 44\ \text{ft} = 2904.0\ \text{ft}^3$

$V_{total} := V_1 + V_2 + V_3 + V_4 + V_5 = 9430.0\ \text{ft}^3$

Weight of Foundation:

$W_{found} := V_{total} \cdot 150\ \frac{\text{lbf}}{\text{ft}^3} = 1414.5\ \text{kip}$

Resisting Moment:

$\phi := 0.75$

$M_{found} := W_{found} \cdot 16.5\ \text{ft} \cdot \phi = 17504.4\ \text{kip} \cdot \text{ft}$

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
www.ct.gov/csc

November 6, 2018

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103

RE: **EM-VER-015-181105 –** Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 623 Pine Street, Bridgeport, Connecticut.

Dear Attorney Baldwin:

The Connecticut Siting Council (Council) received a notice of intent to modify the above-referenced facility on November 2, 2018.

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

Staff has reviewed this exempt modification request for completeness and has identified a deficiency in the Structural Analysis Report provided with the filing. The Structural Analysis Report provided is dated July 11, 2018. The Council had approved a request for exempt modification from Sprint for the same facility on September 17, 2018. The Structural Analysis Report included in Verizon's above-referenced request for exempt modification does not include Sprint's approved equipment. Please see Sprint's exempt modification filing for this facility, which may be found on the Council's website under the Decisions page in Bridgeport under the filing number EM-SPRINT-015-180829 or by following the link:

https://www.ct.gov/csc/lib/csc/ems/bridgeport/pinest/sprint/em-sprint-015-180829_filing_pinest.pdf

Therefore, the exempt modification request is incomplete at this time. The Council recommends that Verizon provide an updated Structural Analysis Report for the facility that includes proposed and approved equipment by Sprint and other entities that are located at this facility on or before December 10, 2018. If additional time is needed to gather the requested information, please submit a written request for an extension of time prior to December 10, 2018.

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

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

Sincerely,

Melanie Bachman
Executive Director

MAB/CW/in

c: Honorable Joseph P. Ganim, Mayor, City of Bridgeport
Kimberly G. Staley, Chief Administrative Officer, City of Bridgeport
Thomas F. Gill, Director of Planning & Economic Development, City of Bridgeport
Radio Communications Corporation, Tower Owner