

PULLMAN & COMLEY, LLC
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ORIGINAL

www.pullcom.com

November 10, 2009

Via Federal Express

S. Derek Phelps, Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RECEIVED
NOV 12 2009
CONNECTICUT
SITING COUNCIL

Re: EM- POCKET-052-090226
Crown Telecommunications Facility
Communication Site Management, LLC Telecommunications Facility

Dear Mr. Phelps:

Pursuant to your letter dated March 16, 2008 (a copy of which is attached), I have enclosed a letter from the structural engineer certifying that the recommendations stated in the original structural analysis (also attached) have been implemented along with the removal of a number of antennas and equipment from the tower. The letter indicates that the capacity for the tower is below 100%, and therefore acceptable.

If you should need anything further, please feel free to contact me.

Respectfully Submitted,



Carrie L. Larson

Enclosure



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

March 16, 2009

Carrie L. Larson, Esq.
Pullman & Comley, LLC
90 State House Square
Hartford, CT 06103-3702

RE: **EM-POCKET-052-090226** – Youghiogheny Communications-Northeast, LLC d/b/a Pocket Communications notice of intent to modify an existing telecommunications facility located at 200 Colt Highway a/k/a Rattlesnake Mountain, Farmington, Connecticut.

Dear Attorney Larson:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

- The second guy 2" BS be reset at 34.5 kips (7%) as recommended in the structural analysis report dated November 11, 2008 and prepared by Simon Pong, P.E.; and
- A signed letter from a Professional Engineer shall be submitted to the Council to certify that the recommended adjustments were properly completed and a post-construction tower rating of not more than 100 percent has been achieved.

The proposed modifications are to be implemented as specified here and in your notice dated February 25, 2009, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

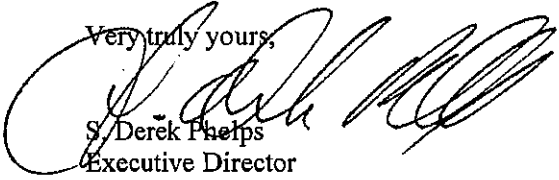
This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to



General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,



S. Derek Phelps
Executive Director

SDP/CDM/laf

- c: The Honorable Mike Clark, Chairman Town Council, Town of Farmington
Kathleen Eagen (via e-mail service), Town Manager, Town of Farmington
Jeffrey Ollendorf (via e-mail service), Town Planner, Town of Farmington
Communication Site Management, LLC



70 Todd Road
Georgetown, Ontario
L7G 4R7 CANADA

P: +1 (905) 877 8885
F: +1 (905) 877 8835

November 9, 2009
Turris project no.: 09-0514

Pocket Communications
c/o Bobby Carter, Force 3 Communications, LLC
168 Stone Column Way, Columbia, SC 29212
Cell: 803-261-7636
Fax: 803-407-4414
Email: bcarter387@sc.rr.com

Re: Structural Modifications of a 1339ft Guyed Mast at Rattlesnake Mountain, Hartford county, CT

Dear Mr. Carter,

This letter is to confirm that the recommendation as stated in an engineering report dated November 11, 2008 (Turris project no: 08-0543) has been implemented along with the removal of a number of antennas and equipment from the 1339ft Guyed Mast at Rattlesnake Mountain (a.k.a. Farmington), Hartford county, CT.

(3) Kathrein panel antennas and (6) 1-5/8" coax will be installed onto the tower at 140' level for Pocket Communications. The antennas will be flush-mounted. The tower will have the following maximum localized stresses after the installation:

Leg:	section 15 at 98% of capacity -- acceptable;
Diagonals:	section 6 at 73% of capacity – acceptable;
Guys:	level 7 at 71% of capacity – acceptable;
Foundations:	acceptable.

We conclude that the tower, with aforementioned installation, conforms with ANSI/TIA-222-G-2005 for the following parameters:

Basic Wind Speed:	105 mph
Basic Wind Speed with Ice:	50 mph
Design Ice Thickness:	1 inch
Structure Class:	II
Exposure/Topographic Category:	C/1

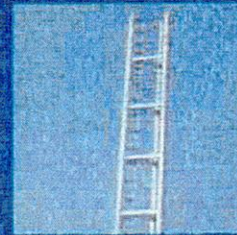
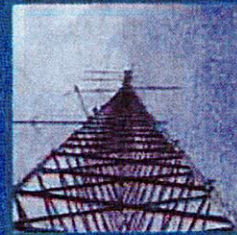
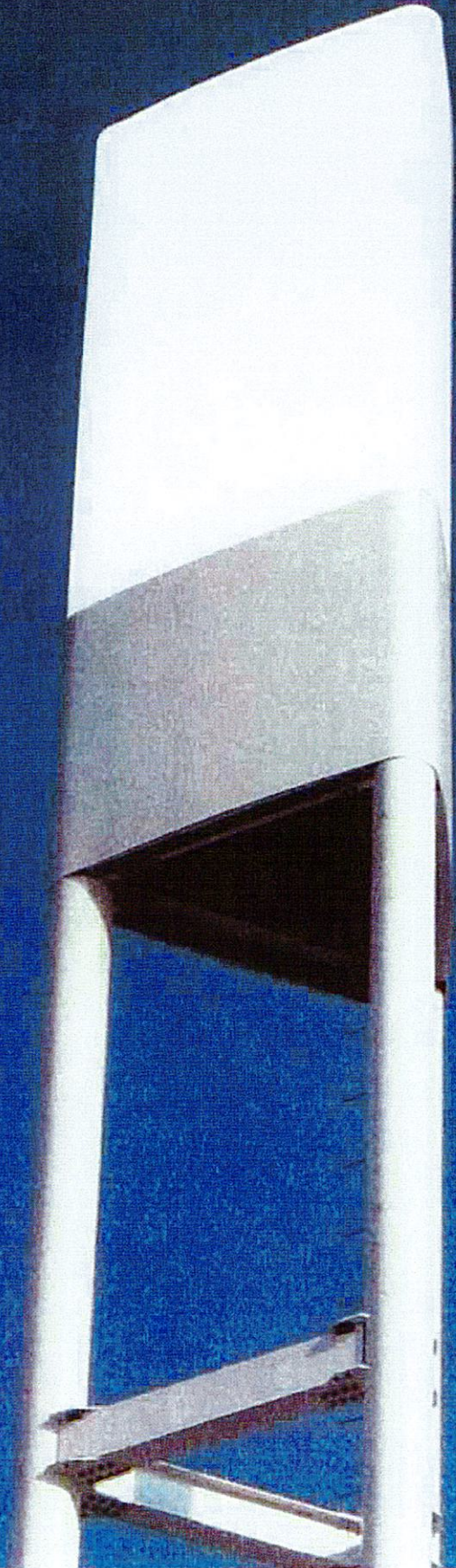
Sincerely,

Simon Pong, M.A.Sc., P.Eng., P.E.
Senior Project Engineer, ext. 219
Turris Corp.

John Wahba, Ph.D, P.Eng., P.E.
Principal Engineer, ext. 202
Turris Corp.

cc: Dave Emery, Communications Site Management LLC
Joe Legere, Communications Site Management LLC

TURRIS



PROJECT:
STRUCTURAL ANALYSIS
of
Existing 1339ft
LRM3700 Guyed Mast

CUSTOMER:
Communications Site
Management LLC

SITE:
Rattlesnake
(a.k.a. Farmington), CT

TURRIS FILE:
08-0543



Turriss Project: 08-0543

STRUCTURAL ANALYSIS OF
Existing 1339 Ft. LRM3700 Guyed Mast
at Rattlesnake (a.k.a. Farmington), CT

FOR:

Communications Site Management LLC

Attention: Dave Emery, Division Manager
225 Asylum Street, 29th Floor
Hartford, CT 06103 USA

Prepared by: Simon Pong, P.Eng, P.E.
TURRIS CORP.
995 Westport Cr., Mississauga, ON, Canada L5T 1E8
Phone: (905) 461-9699 Fax: (905) 461-0967

November 11, 2008

Introduction

We have completed the structural analysis of the existing 1339ft LRM3700 guyed mast at Rattlesnake (a.k.a Farmington), CT, and are pleased to submit our report for your attention.

The purpose of this analysis is to evaluate the tower for compliance with ANSI/TIA-222-G-2005 with the removal and addition of antennas and transmission lines as tabulated in Tables 1 and 2, respectively, from the antenna loading chart of previous analysis (Turriss Project: 08-0304).

Table 1 – Antennas and transmission lines to be removed.

ID	Description	Elev (ft)	Feedline Size	Antenna
1	Ch24 Analog Antenna (Top Mount)	1315	N/A	TFU-22JSC-R C170
1	Ch61 Analog Antenna (Top Mount)	1276.85	N/A	TWS-30
	Feedline	1248.25	(2) 7/8"	None
7	East Face	965	N/A	12' Antenna Mount
8	East Face	920	N/A	12' Antenna Mount
13	Feedline	750	1 1/4"	None
21	Feedline	655	7/8"	Lindsey ATV
22	Ch61 Back Up Antenna (Side Mount)	608	WR1475	Harris Wavestar TWS-15
24	DT31 Backup Antenna (Side Mount)	542	4 1/8"	RD16A
40	Antenna Only	295	None	TDB6172 A-B
41		295	1/2"	TDB6172 A-B
44		269	1/2"	BA3010
45	DT12 Digital Antenna (Side Mount)	250	1 5/8"	B6VA
49	Feedline	195	7/8"	None
50	Feedline	188	1 5/8"	None
55	Feedline	160	1 5/8"	None
57		140	(4) 1 5/8"	(2) Powerwave Dual Band Ant
58		140	NONE	(4) LPG2140X Pre Amp.
59		140	(4) 1 5/8"	(2) Powerwave Dual Band Ant
60		140	NONE	(4) LPG2140X Pre Amp.
61		140	NONE	(4) LPG2140X Pre Amp.
62		140	(4) 1 5/8"	(2) Powerwave Dual Band Ant
65	279 Degree Leg	121	7/8"	DB222-E-A

Table 2 – Antennas and transmission lines to be added.

ID	Description	Elev (ft)	Feedline Size	Antenna
4	Proscan III	1209	(1) 1 5/8" + (1) 1"	Radio Waves PR09-DRB-2C

We trust the analysis and recommendations presented in the report will meet your requirements. However, please do not hesitate to contact us if you have any questions, or require any further information regarding this study.

1.0 Terms of Reference

The following documents and drawings were examined:

Tower Profile: Radian dwg. No. 37-1030-E01-01 Rev. 2 dated Jan/10/2005.
Tower Foundations: LeBlanc dwg. No. 3.7A1001-FE10 Issue 2 dated Aug/31/84.
LeBlanc dwg. No. 3.7A1001-FE1 Issue 1 dated May/7/84.
LeBlanc dwg. No. 3.7A1001-FE2 Issue 1 dated May/1/84.
LeBlanc dwg. No. 3.7A1001-FE3 Issue 1 dated Apr/30/84.
LeBlanc dwg. No. 3.7A1001-FE4 Issue 1 dated Apr/30/84.
LeBlanc dwg. No. 3.7A1001-FE5 Issue 1 dated May/1/84.
LeBlanc dwg. No. 3.7A1001-FE6 Issue 1 dated Apr/30/84.
Radian dwg. No. 37-1030-F01-01 Rev. 0 dated Oct/4/2004.
Radian dwg. No. 37-1030-F02-01 Rev. 0 dated Oct/5/2004.
Radian dwg. No. 37-1030-F03-01 Rev. 0 dated Oct/5/2004.
Antenna Inventory: Refer to Appendix A.
Soil Report: Dr. Clarence Welti, Geotechnical Engineering
Report dated January 30, 2004

A tower inspection was not performed in conjunction with this analysis. The tower and loading data used in this analysis are based on and is as accurate as the data furnished/obtained.

2.0 Analysis Parameters

- Standard: ANSI/TIA-222-G-2005
- County: Hartford, CT
- Basic Wind Speed: 105.00(mph)
- Basic Wind Speed With Ice: 50.00(mph)
- Design Ice Thickness: 1.00(in)
- Structure Class: II
- Exposure Category: C
- Topographic Category: I

3.0 Assumptions

1. The tower is in good, non-corroded conditions.
2. This analysis assumes that all previous reinforcing recommendations and antenna rearrangement have been implemented.
3. All existing/future tx lines less than 3" in diameter are considered grouped together in blocks.
4. This analysis assumes that the back-to-back diagonals at sections 6, 7, 12, 13, 19, 20, 21, and 33 had been upgraded with (1) 5/8" stitch bolt on each side of the existing middle stitch bolt.

4.0 Analysis Results

Appendix A shows the tower profile, along with the antennas, transmission lines and ancillary loading considered in this analysis. The existing structure was analysed using the comprehensive computer program "TSTower". Graphical and tabular results are presented in Appendix B.

5.0 Conclusions & Recommendations

The existing 1339 ft LRM3700 guyed tower at Rattlesnake (a.k.a Farmington), CT, was examined for compliance with American standard ANSI/TIA-222-G-2005. A summary of member stresses are listed below:

Summary of member stress ratios

Leg				
Section	Maximum stress ratio	Location	Member size	Comment
15	1.03	first panel	SR 6	Unacceptable

Diagonal				
Section	Maximum stress ratio	Location	Member size	Comment
33	0.67	second panel	(2) L3x2x1/4	Acceptable
	0.67	first panel	(2) L3x2x1/4	Acceptable

Horizontal				
Section	Maximum stress ratio	Location	Member size	Comment
38	0.58	fourth panel	(2) L2 1/2x2x3/16	Acceptable
32	0.58	fourth panel	(2) L2 1/2x2x3/16	Acceptable
1	0.58	second panel	(2) L2 1/2x2x3/16	Acceptable

Summary of original base reactions as per Rev. F*

Axial (Kips)	Shear (Kips)
3087.9	10.4

* values increased by 1.35 for comparison

Summary of base reactions as per Rev. G**

Axial (Kips)	Shear (Kips)
3704.0	58.9

**foundation is acceptable after re-checking the original design.

Summary of original anchor design reactions as per Rev. F*

Anchor #	Azimuth (deg)	Radius (ft)	Horizontal Load (Kips)	Vertical Load (Kips)	Axial Load (Kips)
1C	39.0	685.00	579.29	378.41	692.01
2C	159.0	645.00	582.39	409.32	711.86
3C	279.0	729.00	575.51	422.15	713.61
1B	39.0	845.00	143.51	166.46	219.78
2B	159.0	735.00	151.47	184.95	239.09
3B	279.0	827.00	149.45	175.91	230.85
1A	39.0	875.00	284.31	386.24	479.12
2A	159.0	765.00	295.79	423.77	515.97
3A	279.0	857.00	289.04	395.82	489.78

* values increased by 1.35 for comparison

Summary of anchor reactions as per Rev. G

Anchor #	Azimuth (deg)	Radius (ft)	Horizontal Load (Kips)	Vertical Load (Kips)	Axial Load (Kips)
1C	39.0	685.00	482.57	343.95	592.60
2C	159.0	645.00	483.72	365.84	606.48
3C	279.0	729.00	470.61	373.99	601.12
1B	39.0	845.00	125.85	159.14	202.89
2B	159.0	735.00	131.50	172.98	217.28
3B	279.0	827.00	129.73	166.06	210.73
1A	39.0	875.00	244.77	370.47	444.03
2A	159.0	765.00	251.49	397.00	469.95
3A	279.0	857.00	246.84	375.36	449.25

A check to the base foundation shows that it is adequate for the base reactions as per Rev.G. A comparison of the reactions shows that the anchor reactions as per Rev.G are less than the original design allowable reactions increased by 1.35 for comparison. We recommend that the second guy 2" BS to be reset at 34.5 kips (7%) to eliminate the 3% overstress in the tower leg, and the tower would conform with ANSI/TIA-222-G-2005.

Prepared by:

Reviewed by:

Simon Pong, P.Eng., P.E.
Project Engineer
Turriss Corp.

 12/12/2006

John Wahba, Ph. D, P. E., P. Eng.
Principal Engineer
Turriss Corp.

SCOPE & LIMITATIONS FOR THE PROVISION OF PROFESSIONAL ENGINEERING SERVICES FOR STRUCTURES

All engineering services performed by Turriss Corp. (Turriss) in connection with the structural analysis of the tower is limited to the strength of the members and does not account for any variations due fabrication, including welding and connection capacities and installations, except as outlined in this Report.

This analysis report is based on assumptions that the information below, but is not necessarily limited to:

- information supplied by the client regarding the structure and its components, foundations, soil conditions, appurtenances loading on the structure, and other site-specific information.
- information from documents and/or drawings in the possession of Turriss Corporation, or acquired from field inspections.

It is the responsibility of the client to ensure that the information provided to Turriss, and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications provided, and are in non-corroded condition and have not deteriorated. Therefore, we assume that the member capacities have not changed from the "as new" condition.

All services will be performed to meet the codes specified by the client, and we do not imply to meet any other codes or requirements unless explicitly agreed to in writing. If wind and ice loads or other relevant parameters are to be different than the minimum values recommended by the standards, the client shall specify the requirement.

All services are performed in accordance with generally accepted engineering principles and practices. Turriss is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.

Furthermore, Turriss assumes no obligations to revise any of the information or conclusions contained in this Report in the event that such engineering and analysis procedures and formulas are hereafter modified or revised. In addition, under no circumstances will Turriss have any obligations or responsibility whatsoever for or on account of consequential or incidental damages sustained by any person, firm or organization as a result of any information or conclusions contained in the report and the maximum liability of Turriss Corp., if any, pursuant to this Report shall be limited to the total funds actually received by Turriss Corp. for preparation of this Report.

APPENDIX A

Tower Profile and Antenna Loading Chart

APPENDIX A Antenna Loading Chart

ID	Pos	Description	Qty	Elev (ft)	Tx Line	Qty	AZ	Comments	Status
Top Candelabra loading									
1	2b	TFU-16DSC-R C170	1	1273.00	7 3/16" **	** Shared		East Arm Bottom Up	E
1	3a	TFU-18JTH/VP-R-04	1	1315.55	7 3/16" *	* Shared		NW Arm Top Up	E
1	3b	TFU-18DSCMP-R C170	1	1266.70	7 3/16" *	* Shared		NW Arm Bottom Up	E
				1248.25	6-1/8"	Spare			F
Miscellaneous loading on tower mast									
4	4	Radio Waves PR09-DRB-2C	1	1209	1 5/8" + 1"	1 Each	39	ProscanIII	P
5	5	SRL-110A-2	2	1200	7/8"	1	39, 159		E
6		TLP24A	1	1100	4 1/16"	1	None	Side mounted	E
7		Mount	1	960	None	None	E Face	For 10' Whip	E
8		Mount	1	920	None	None	E Face	For 10' Whip	E
9	7	FM ERI-1053-1CP	1	845	3 5/8" + 1 5/8"	1	1 Bay Each		E
10		DB809-H	1	800	3 1/8"	1	39		E
11	9	DB413	2	778	1 5/8"	1	39, S Face		E
12	10	DB413	2	755	1 5/8"	1	39, S Face		E
14	13	DB809K	1	740	1 5/8"	1	39		E
15		DB809-H	1	726	1 5/8"	1	39		E
16	14	DB254C	2	715	None	None	S Face		E
17	15	DB8983P	1	715	None	None	159		E
18	16	DB420B	1	708	None	None	39		E
19		DB809K	1	688	1 5/8"	1	39		E
20		DB224	1	671	1 5/8"	1	39		E
23		Kathrein 740-195	1	564	1 5/8"	1	279		E
25	25	Scala OGB9-900K	1	514	1 5/8"	1	39		E
26	26	Dish Mounts & I/G	3	512	None	None	39, 159, 279		E
27	29	TA2335	3	460	EW 20	1	1 Each Leg		E
28	30	Antel BCD 87010N25-6	1	440	1 5/8"	1	39		E
29	32	DB Dipole	1	416	7/8"	1	39		E
30	33	FM-XH 3A3	1	405	3 1/8"	1	159		E
31	34	DB225	1	400	1 1/4"	1	39		E
32	35	Ice Guards	2	374	None	None	39, 159		E
33	37	DB230	1	360	7/8"	1	279		E
34		6' Microwave Dish	2	355	WE71	2	39 & 159		E
35	51	DB408L & Scala OGB9-900N	2	320	7/8"	2	39, 279		E
36	52	I/G	3	310	None	None	1 Each Face		E
37	54	Tiltek TA-2404-8-120 & BU-DS.11D RF Module	3	305	CAT 5	3	39, 159, 279		E
38	53	None		305	1/2"	8	None		E
39	55	Scala 450	1	300	7/8"	1	279		E
42		PXL8	1	283	EW 63	2	279		E
43		MF900B	1	270	1 1/4"	1	279		E
46	60	(2) ALP6014 (1) DB948F85T2E-M	3	240	7/8"	3	39		E
47		LGP TMA-DD 1900 Amp.	3	230	None	None	39, 159, 279		E
48	61	(2) ALP9212-N, (1) ALP6014 & (2) DB948F85T2E-M	5	230	7/8"	5	159, 279		E
51	62	PD220-3	1	180	7/8"	1	159		E

52	64	BMR 10A	1	165	1 5/8"	1	39		E
53		DB950F65T4E-M	2	160	2 1/4"	2	279		E
54		DB950F65T4E-M	1	160	2 1/4"	1	39		F
56	65	HP6	1	155	EW52	1	211		E
63		Feedline		130	7/8"	1	None		E
64	66	PD400	1	121	7/8"	1	159		E
66		PD1110	1	110	1 1/4"	1	159		E
67	70	Ice Guards	3	106	None	None	1 Each Leg		E
68	71	Dish Mounts	3	100	None	None	1 Each Leg		E
69		10' Microwave Dish	1	87	EW52	1	39		E
70		A-18A24	1	70	2 1/4"	1	39		E
71		Dish Mount	1	64	None	None	39		E
72		Dish Mount	1	57	None	None	39		E
73		Dish Mount	1	46	None	None	39		E
74	73	Ice Guards	1	35	None	None	39		E
75	74	PL6	1	30	EW63	1	39		E
76		Kathrein 742 213	3	140	1 5/8"	6	30, 150, 270	Leg flush mounted	E
77		Hyperlink 3ft dish w/ radome	1	210	Cat 5 cable^	1		Computer hospital	P
78		Proxim 5054R-LR Base panels	2	210	Cat 5 cable^	3		Computer hospital	P

^Cat 5 cables are bundled together to 210'

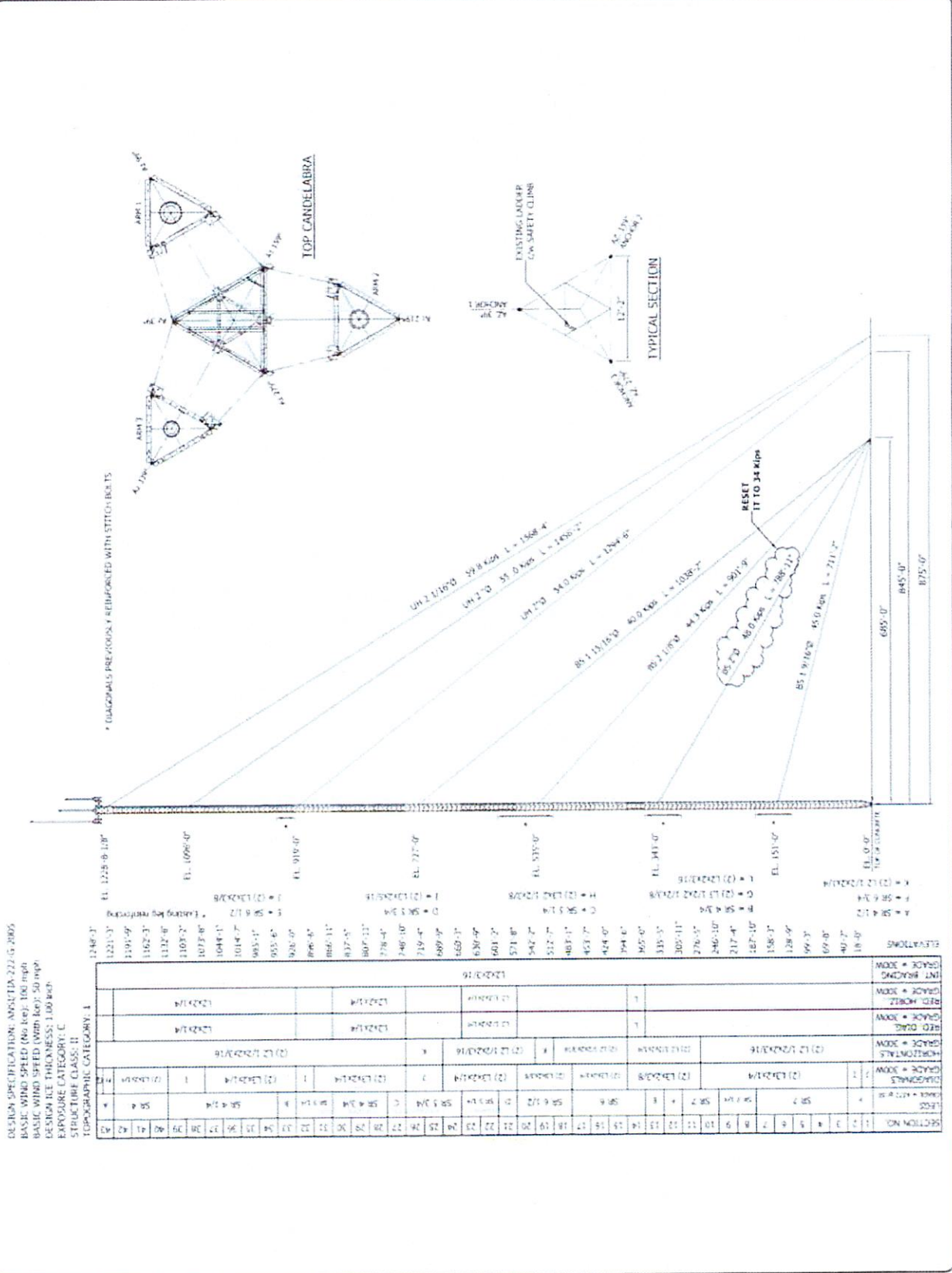
NO.	DATE	DESCRIPTION

NO.	DATE	DESCRIPTION

NO.	DATE	DESCRIPTION

EXISTING LIGHT LAMP
 COMMUNICATIONS SITE MANAGEMENT LLC
 BATTLESMARF HARBOR RD CITY, CT

TOWER PROFILE	
NO.	DATE



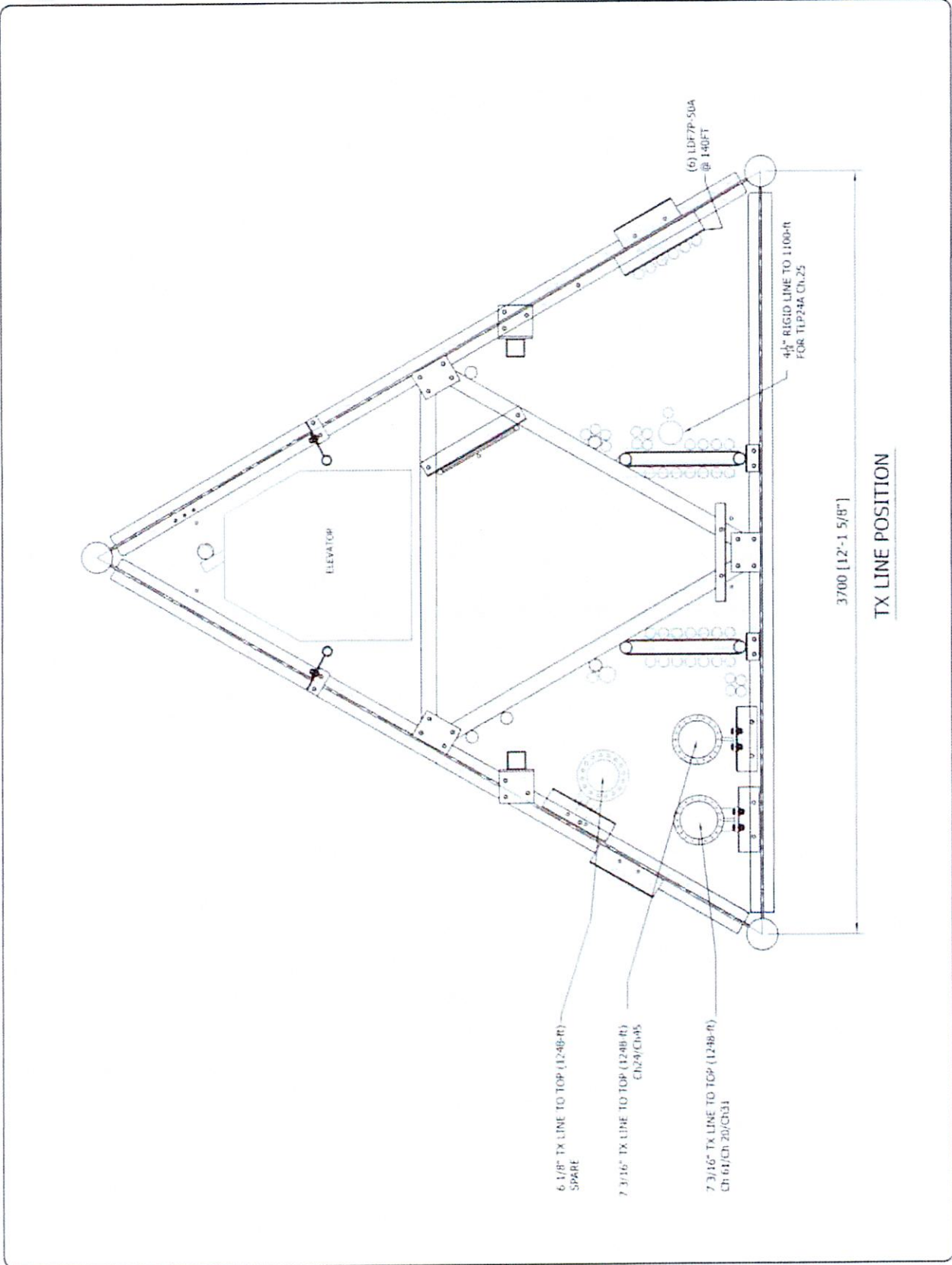
DESIGN SPECIFICATION: ANGSDTA-222-G-2005
 BASIC WIND SPEED (66 kph): 100 mph
 BASIC WIND SPEED (WITH 100' 50 mph)
 DESIGN ICE THICKNESS: 1.00 inch
 EXPOSURE CATEGORY: C
 STRUCTURE CLASS: II
 TOPOGRAPHIC CATEGORY: I

NO.	DATE	DESCRIPTION	BY	CHK	APP

DWG. REFERENCE	

EXISTING 1138FT (351M)
 COMMUNICATIONS SITE MANAGEMENT LLC
 BATTLE MOUNTAIN (HARRIS) CELL SITE

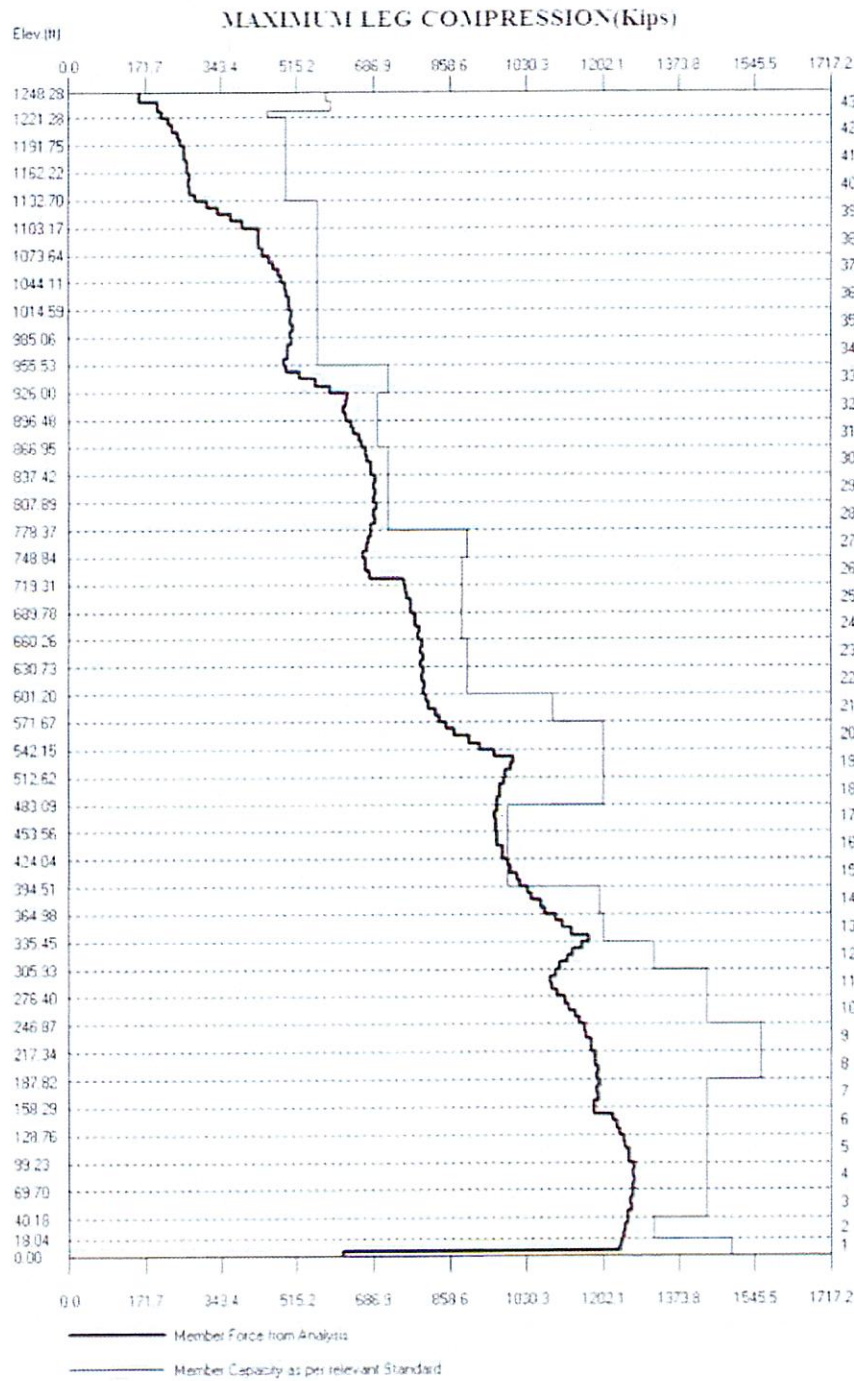
TX LINE LAYOUT	
NO.	DATE



**APPENDIX B
Results of Analysis**

Guy Elevation (ft)	Guy Maximum Stress Levels (% of Rated Capacity)
1228.68	72
1096.00	70
919.00	67
727.00	68
535.00	56
343.00	56
151.00	56

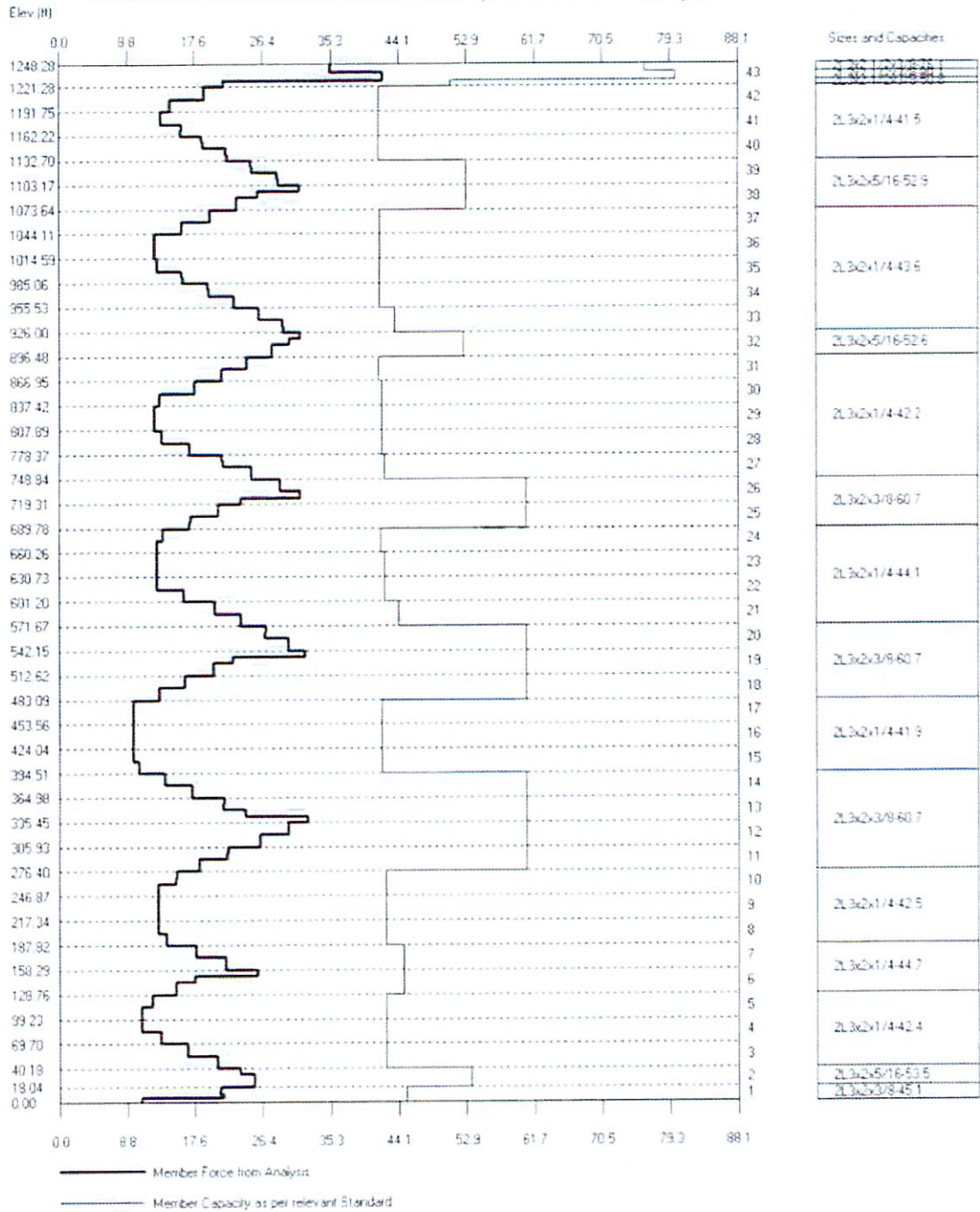
Elevation (ft)	Maximum Beam Rotation (Degrees) for Serviceability Conditions
1209.00	0.94
1200.00	0.92
800.00	0.69
740.00	0.70
726.00	0.70
688.00	0.71
671.00	0.71
564.00	0.69
440.00	0.64
355.00	0.57
283.00	0.53
210.00	0.44
155.00	0.33
140.00	0.32
110.00	0.26
87.00	0.23



Sizes and Capacities

SR 4 1/2-891.2
SR 4 1/2-933.9
SR 4 490.2
SR 4 1/4-562.6
SR 4 3/4-720.9
SR 5 1/4-698.7
SR 4 3/4-720.9
SR 5 1/4-897.0
SR 5 3/4-885.9
SR 5 1/4-887.0
SR 5 3/4-1091.0
SR 6 1/2-1202.3
SR 6-986.5
SR 6-1194.6
SR 6 1/2-1202.3
SR 6 3/4-1317.4
SR 7-1436.9
SR 7 1/4-1561.1
SR 7-1436.9
SR 6 3/4-1317.6
SR 6 3/4-1494.8

MAXIMUM DIAGONALS CAPACITIES (COMPRESSION)(Kips)





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