University of Connecticut
George L. Davis
Tower Manager

1814 Route 171
Woodstock Valley, Connecticut 06282
Phone: 860 974-1856
Fax: 860 974-2757
Email: davisgl@earthlink.net

RECEIVED
NOV - 7 2002
CONNECTICUT
SITING COUNCIL

November 4, 2002

Mortimer A. Gelston, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Sprint Tower – Change of Ownership
82 North Eagleville Road
Storrs, CT

Dear Mr. Chairman:

Please be advised that pursuant to an agreement between Sprint Spectrum, L.P. and the University of Connecticut executed in 1997, ownership of the abovementioned tower shall transfer to the university. The effective date was supposed to have been May 1, 2002; however, due to administrative delays on the part of Sprint, the transfer will not take place until later this month.

Detailed tower information:
FAA Study # 00-ANE-0343-OE
Lat/Lon 41-48-51.7 072-15-37.2W
Height AGL 250'

Thank you for your consideration.

Sincerely,

George L. Davis
Tower Manager

EM-Nextel-078-000724

cingular WIRELESS

FACSIMILE TRANSMITTAL SHEET

TO: JOEL RINEBOLD	FROM: STEVE LEVINE
COMPANY: CSC	DATE: 5/29/01
FAX NUMBER:-	TOTAL NO. OF PAGES INCLUDING COVER: 21
PHONE NUMBER:	SENDER'S REFERENCE NUMBER:
RE:	YOUR REFERENCE NUMBER:

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

JOEL,

WHUS TOWER STRUCTURAL 5/24/01.

WHUS IS SENDING AN ORIGINAL.

Thanks.

Steve

RECEIVED
MAY 29 2001
CONNECTICUT SITING COUNCIL

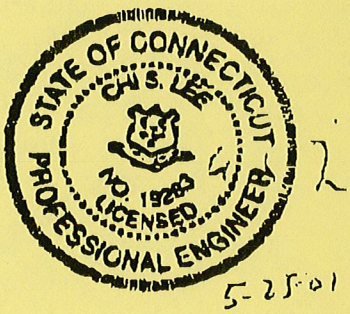
500 ENTERPRISE DRIVE 3RD FLOOR ROCKY HILL, CT 06067-3900
PHONE 860-513-7600 FAX 860-513-7190

Structural Analysis Report

Job #02-05209

Existing 327' Sabre Communications Corporation 4400SRW Guyed Tower

Located at Storrs, Connecticut



Report Completed for

WHUS University of Connecticut

Storrs, Connecticut

Prepared by

Sabre Communications Corporation

May 24, 2001

Sabre Communications Corporation
File # 02-05209
5/24/01

Structural Analysis Report
Existing 327' Sabre Communications Corporation
4400SRW Guyed Tower

Table of Contents

Sabre Communications Corporation
File # 02-05209
5/24/01

Introduction

The purpose of this analysis is to determine if the existing tower is in conformance with the requirements of ANSI/TIA/EIA 222-F, while supporting specified equipment. The tower is a 327' 4400SRW guyed tower and was originally manufactured by Sabre Communications Corporation. The tower is located in Storrs, Connecticut. The analysis is being performed for WHUS University of Connecticut, Storrs, Connecticut.

Method of Analysis

The computer program that was used for this analysis is described on the attached page. The analysis was performed using a basic wind speed of 90 mph concurrent with 1/2" ice, in accordance with ANSI/TIA/EIA 222-F. Allowable stresses, safety factors and load factors were also determined in accordance with this standard. Due to the required 25% extra capacity of all the tower members, the minimum required guy safety factor is 2.50 and only 7.0% increase in allowable stresses is taken for this tower.

Supported Equipment

The analysis was performed for the tower, supporting the following equipment:

WHUS
1. One (1) Shively 6813 2-bay antenna on a pole from 290' to 327'
2. One (1) OMB-GP1 antenna from 209' to 211'
3. One (1) Telewave 450F6 antenna from 273' to 281'
4. One (1) Diamond x50 antenna from 273' to 287'
5. One (1) Cushcraft antenna at 92'

Connecticut State Police
6. Two (2) 6' dishes with radomes from 113' to 119'
7. One (1) 6' dish with radome from 101' to 107'
8. One (1) Scala AP14-850-105 antenna from 258' to 267'
9. One (1) DB-810K antenna from 265' to 273'
10. One (1) Scala AP14-850-105 antenna from 258' to 250'
11. One (1) DB-212 antenna from 74' to 94'
12. One (1) Scala OGT9-806 antenna from 258' to 247'

Verizon
13. Twelve (12) panel antennas on mounts from 82' to 86'
14. One (1) PD-220 antenna from 154' to 174'
15. Three (3) Metawave panel antennas on mounts at 80'
16. Twelve (12) 1-1/4" lines and three (3) 1/2" lines

PageNet
17. One (1) DB872H120 antenna from 158' to 160'
18. One (1) DB586-T3 antenna from 151' to 155'
19. One (1) DB589-T3 antenna from 156' to 165'
20. One (1) DB589-T3 antenna from 162' to 171'
21. One (1) Scala yagi antenna at 105'

Other Tenants
22. One (1) Shively 1-bay antenna from 193' to 206'
23 One (1) Celwave TDF6319A antenna from 111' to 121'
24. One (1) 8' whip antenna from 153' to 161'
25. One (1) Celwave PD10108 antenna at 29'
26. One (1) Sinclair RL420NHD antenna from 124' to 133'

Cingular (proposed)
27. Six (6) DB846H80(E)-SX antennas, three (3) EMS RS90-12-00DA-2 antennas and three (3) Allgon 7125.16.05 antennas on mounts at 145', with fifteen (15) 1-1/4" lines

Nextel (proposed)
28 Twelve (12) DB844H90 antennas on mounts at 225', with fifteen (15) 1-5/8" lines

29. Two (2) Scala AP14-850 antennas at 182' (proposed)

Each tower face is assumed to be fully covered with feedlines.

Results

The results of the analysis show no overstresses in any tower component.

In addition, the results of the analysis show that the foundations are adequate.

Sabre Communications Corporation
File # 02-05209
5/24/01

STATE OF CONNECTICUT CHI & LEE NO. 19250 LICENSED PROFESSIONAL ENGINEER

Conclusions

Based on the preceding results, the following conclusions have been made:

1. The tower with specified equipment is adequate to achieve a basic wind speed rating of 90 mph concurrent with 1/2" ice, in accordance with ANSI/TIA/EIA 222-F.
2. No modifications are required, in order to meet the structural criteria stated above.
3. The analysis is valid only for the equipment listed above. If the equipment is not as listed, an additional analysis should be performed.
4. The analysis assumes that the tower contains no structural defects, and that all componants have been installed properly.

Description of Guyed Tower Computer Program

A guyed tower computer program employing the stiffness matrix (finite element) method is utilized by Sabre Communications to perform the structural analysis and design of guyed towers.

The general principle of analysis of a guyed tower is based on the papers published in the ASCE Journal of the Structural Division such as No.'s 3021, 3375 and 4671. The stiffness matrix method is based on the articles published in the ASCE's Fall Convention and Exhibit held in San Francisco California in October of 1977 and ASCE's 8th Conference of Electronic Computation in Houston, Texas in February of 1983.

The other reference books for stiffness matrix or finite element are Richard H. Gallagher, Finite Element Analysis Fundamentals, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1975; William Weaver, Jr. and Paul R. Johnston, Finite Elements for Structural Analysis, Prentice-Hall, Inc., 1984 and M. B. Kanchi, Matrix Methods of Structural Analysis, John Wiley & Sons, New York, New York, 1981.

The basic criteria of designing a guyed tower such as wind speed, effective areas of tower sections, allowable stresses, safety factors of guys and foundations are based on the ANSI/EIA/TIA Standards.

Sabre Communications Corporation
File # 02-05209
5/24/01

Basically, a guyed tower is treated as a continuous beam on elastic supports, namely guy wires. Wind, ice and weight are the major design loads considered in the static analysis. Effects to due eccentric moments, torques, axial deformations, slopes and deflections and the elevations of guy anchors are included in the tower program.

After all the necessary input data is entered, the program will compute the wind loads at different elevations, effective area of tower sections and the allowable capacity of each tower member. Then it will generate a stiffness matrix of each individual tower member and guy wire. Then the matrices are assembled to form a global matrix. A system of linear simultaneous equations is set based upon the equilibrium conditions of a global matrix, deformations and load vector. By solving the equations and then by back substitution of the deformations into individual elements (tower spans), the final axial forces, end shears and end moments are obtained. Each tower span is divided into ten small sections so that the shear, moment, leg and brace loads, and the combined stress ratios of each small section are calculated.

For clarity and simplicity, the tower program only prints out the maximum reactions and loads of tower members due to the different directions of wind acting at a tower. namely, into leg, parallel to face and into face. Usually the relative maximum guy tensions, brace loads and leg loads are caused when the direction of wind is at the tower leg or apex, parallel to tower face and into tower face, respectively.

GUYED TOWER ANALYSIS AND DESIGN COMPUTER PROGRAM BY CHI S. LEE, P.E., Page 1

292' (OVERALL HT. = 327') MODEL 4400SRW, STORRS, CT (#02-05203) 5-23-01
90 MPH WIND + 0.5 in. ICE (NO REDUCTION) PER EIA-222-F-1996
TOWER WITH LINES IS CONSIDERED AS SOLID AREA
25% EXTRA CAPACITY FOR ALL TOWER MEMBERS AND GUY WIRES REQUIRED
INPUT DATA FILE SABRE\GUYTOWER\01J94-1.DAT PER LEEGTSP

STATE OF CONNECTICUT CHI S. LEE NO. 18208 LICENSED PROFESSIONAL ENGINEER

***** GUYED TOWER *****

TOWER HEIGHT (ft.)	=	292
RADIAL ICE (in.)	=	.5
WIND SPEED (mph)	=	90
NO. OF SET OF ANCHORS	=	1
REQ'ED GUY SAFETY FACTOR	=	2
BASE CONDITION	=	PIVOT
ANCHOR AZIMUTHS (deg)	=	0 , 120 , 240

***** ANTENNA LOADING *****

ELEV. ft.	PROJ. AREA sq.ft.	WIND LOAD kips	DEAD LOAD kips	ANTENNA TORQUE k-ft	DESCRIPTION OF ANTENNA
29	3.0	0.07	0.15	0.0	PD10108 ANTENNA
57	16.0	0.42	0.70	0.0	CHANNEL TORQUE ARM
60	18.0	0.52	0.30	0.0	(3) PANEL ANTENNAS
84	92.0	2.71	2.20	0.0	(12) PANELS + MOUNTS
92	6.0	0.18	0.15	0.0	YAGI ANTENNA
94	8.0	0.24	0.20	0.0	DB212 ANTENNA
104	25.0	0.78	0.30	1.0	6' DISH W/ RADOME
105	6.0	0.19	0.15	0.0	YAGI ANTENNA
107	15.0	0.51	0.70	0.0	CHANNEL TORQUE ARM
116	6.0	0.19	0.20	0.0	TDF6319A
119	44.0	1.43	0.60	1.0	(2) 6' DISHES W/RADOMES
129	3.0	0.10	0.10	0.0	SRL-420
145	92.0	3.17	2.20	0.0	NEW (12) PCS ANT'S + MT'S
155	4.0	0.14	0.15	0.0	DB586 ANTENNA
157	6.0	0.21	0.20	0.0	8' WHIP
159	12.0	0.42	0.35	0.0	DB872H120
160	4.0	0.14	0.15	0.0	DB589 ANTENNA
164	5.0	0.18	0.20	0.0	PD220 ANTENNA
167	16.0	0.57	0.70	0.0	CHANNEL TORQUE ARM
167	4.0	0.14	0.15	0.0	DB589 ANTENNA
182	20.0	0.74	0.40	0.0	NEW (2) AP14-850 ANTENNAS
200	10.0	0.38	0.20	0.0	SHIVELY 6813 1-BAY
210	8.0	0.31	0.20	0.0	OMB-GP1 ANTENNA
217	16.0	0.62	0.70	0.0	CHANNEL TORQUE ARM
225	56.0	2.19	1.80	0.0	NEW (12) DB844H + MOUNTS
251	4.0	0.16	0.15	0.0	DB589 ANTENNA
252	3.0	0.12	0.10	0.0	SCALA OGT9-806 ANT.
254	12.0	0.49	0.30	0.0	SCALA AP14-850 ANT.
257	16.0	0.65	0.70	0.0	CHANNEL TORQUE ARM
262	12.0	0.49	0.30	0.0	SCALA AP74-850 ANT.
269	5.0	0.21	0.20	0.0	DB810K
270	6.0	0.25	0.20	0.0	DIAMOND X 50 ANTENNA

277	3.0	0.12	0.10	0.0	TELEWAVE ANT450 P6
284	16.0	0.67	0.70	0.0	CHANNEL TORQUE ARM
312	55.0	2.56	3.80	0.0	SHIVELY 6813 2-BAY + POLE

***** LINEAR ATTACHMENT *****

ELEVATION ft.	EFFECTIVE AREA sq.ft/ft.	DEAD LOAD k/ft	DESCRIPTION OF ATTACHMENT
292	6.40	0.150	SOLID FACE LINES

CUYED TOWER ANALYSIS AND DESIGN COMPUTER PROGRAM BY CHI S. LEE, P.E., Page 2

292' (OVERALL HT. = 327') MODEL 4400SRW, STORRS, CT (#02-05209) 5-23-01
90 MPH WIND + 0.5 in. ICE (NO REDUCTION) PER EIA-222-F-1996
TOWER WITH LINES IS CONSIDERED AS SOLID AREA
25% EXTRA CAPACITY FOR ALL TOWER MEMBERS AND GUY WIRES REQUIRED
INPUT DATA FILE SABRE\GUYTOWER\01594-1.DAT PER LEEGTSP

**** TOWER SPAN DATA ****
(LINEAR ATTACHMENTS ARE NOT INCLUDED)

ELEVATION FROM ft	TO ft	PROJ. AREA ft^2/ft	Ag ft^2/ft	e	Cf	EFFECTIVE AREA ft^2/ft	WIND PRESSURE ksf	WIND LOAD k/ft	DEAD LOAD k/ft
0	57	0.69	4.00	0.281	2.35	1.61	0.023	0.036	0.133
57	107	0.70	4.00	0.284	2.34	1.63	0.029	0.048	0.138
107	167	0.68	3.98	0.279	2.35	1.59	0.034	0.054	0.128
167	217	0.66	3.98	0.272	2.37	1.56	0.037	0.058	0.118
217	257	0.64	3.96	0.266	2.39	1.53	0.040	0.061	0.108
257	284	0.68	3.98	0.279	2.35	1.59	0.041	0.066	0.128
284	292	0.63	3.96	0.263	2.40	1.51	0.042	0.064	0.103

GUY ELEV ft	GUY RADIUS ft	ANCHOR LEVEL ft	# OF GUYS /ELEV	UNIF WIND k/ft	UNIF WT k/ft	ANT'S WT k	ECC. ARM ft	WIND* LOAD psf	LEG AREA in2	FACE WIDTH ft	TORQ/ ELEV ft-k
57	235	-25.0	6	0.172	0.283	0.85	2.12	21	7.07	3.66	0.0
107	235	-25.0	6	0.223	0.288	4.00	2.12	24	7.07	3.66	1.0
167	235	-25.0	6	0.258	0.278	4.85	2.12	27	5.94	3.66	0.0
217	235	-25.0	6	0.282	0.268	1.65	2.12	29	5.94	3.66	0.0
257	235	-25.0	6	0.299	0.258	3.05	2.12	31	4.91	3.66	0.0
284	235	-25.0	6	0.313	0.278	1.50	2.12	31	5.94	3.66	0.0
CANTILEVER ARM :-				0.316	0.253	3.20			4.91	3.66	0.0

* MEANS WIND PRESSURE ON GUYS

GUYED TOWER ANALYSIS AND DESIGN COMPUTER PROGRAM BY CHI S. LEE, P.E., Page 3

292' (OVERALL HT. = 327'); MODEL 4400SRW, STORRS, CT (#02-05209) 5-23-01
90 MPH WIND + 0.5 in. ICE (NO REDUCTION) PER EIA-222-F-1996
TOWER WITH LINES IS CONSIDERED AS SOLID AREA
25% EXTRA CAPACITY FOR ALL TOWER MEMBERS AND GUY WIRES REQUIRED
INPUT DATA FILE SABRE\GUYTOWER\01J94-1.DAT PER LEEGTSP

***** TOWER'S MEMBER DATA *****

Fy of LEGS = 50 ksi Fy of DIAGONALS = 36 ksi Fy of GIRTS = 36 ksi

SEC. FROM ft	LENGTH TO ft	MEMBER SIZE		DIAG CONFIG	K-VALUE	L in.	r in.	AREA in2	KL/r	Fa or Ft ksi	ALLOW LOAD kips
*** LEGS OF TOWER ***											
0	80	3.0	ROD	ZG	1.0	40.0	0.75	7.07	53	23.82	168.43
80	100	3.0	ROD	ZG	1.0	40.0	0.75	7.07	53	23.82	168.43
100	120	2.75	ROD	ZG	1.0	40.0	0.69	5.94	58	23.03	136.81
120	140	2.75	ROD	ZG	1.0	40.0	0.69	5.94	58	23.03	136.81
140	160	2.5	ROD	ZG	1.0	40.0	0.63	4.91	64	22.02	108.13
160	180	2.75	ROD	ZG	1.0	40.0	0.69	5.94	58	23.03	136.81
180	200	2.5	ROD	ZG	1.0	40.0	0.63	4.91	64	22.02	108.13
200	220	2.5	ROD	ZG	1.0	40.0	0.63	4.91	64	22.02	108.13
220	260	2.25	ROD	ZG	1.0	40.0	0.56	3.98	71	20.74	82.56
260	292	2.0	ROD	ZG	1.0	40.0	0.50	3.14	80	19.01	59.70
*** DIAGONALS OF TOWER ***											
0	80	1.25	ROD	ZG	1.0	56.3	0.31	1.23	180	4.62	5.68
80	100	1.375	ROD	ZG	1.0	56.3	0.34	1.48	164	5.54	8.20
100	120	1.5	ROD	ZG	1.0	56.3	0.38	1.77	150	6.63	11.73
120	140	1.25	ROD	ZG	1.0	56.3	0.31	1.23	180	4.62	5.68
140	160	1.375	ROD	ZG	1.0	56.3	0.34	1.48	164	5.54	8.20
160	180	1.5	ROD	ZG	1.0	56.3	0.38	1.77	150	6.63	11.73
180	200	1.25	ROD	ZG	1.0	56.3	0.31	1.23	180	4.62	5.68
200	220	1.5	ROD	ZG	1.0	56.3	0.38	1.77	150	6.63	11.73
220	260	1.375	ROD	ZG	1.0	56.3	0.34	1.48	164	5.54	8.20
260	292	1.375	ROD	ZG	1.0	56.3	0.34	1.48	164	5.54	8.20
*** GIRTS OF TOWER ***											
0	80	1.0	ROD	ZG	1.0	44.0	0.25	0.79	176	4.82	3.78
80	100	1.0	ROD	ZG	1.0	44.0	0.25	0.79	176	4.82	3.78
100	120	1.0	ROD	ZG	1.0	44.0	0.25	0.79	176	4.82	3.78
120	140	1.0	ROD	ZG	1.0	44.0	0.25	0.79	176	4.82	3.78
140	160	1.0	ROD	ZG	1.0	44.0	0.25	0.79	176	4.82	3.78
160	180	1.0	ROD	ZG	1.0	44.0	0.25	0.79	176	4.82	3.78
180	200	1.0	ROD	ZG	1.0	44.0	0.25	0.79	176	4.82	3.78
200	220	1.0	ROD	ZG	1.0	44.0	0.25	0.79	176	4.82	3.78
220	260	1.0	ROD	ZG	1.0	44.0	0.25	0.79	176	4.82	3.78
260	292	1.0	ROD	ZG	1.0	44.0	0.25	0.79	176	4.82	3.78

***** GUY WIRE DATA *****

GUY ELEV ft.	GUY SIZE	*DIAMETER in.	AREA sq.in.	B.S. kips	I.T. kips	*GUY WT. lb/ft	E ksi
57	7/16 EHS	1.438	0.12	20.80	3.08	0.972	21000
107	5/8 EHS	1.625	0.24	42.40	4.24	1.500	21000
167	3/4 EHS	1.750	0.34	58.30	5.83	1.918	21000
217	3/4 EHS	1.750	0.34	58.30	5.83	1.918	21000
257	3/4 EHS	1.750	0.34	58.30	5.83	1.918	21000
264	3/4 EHS	1.750	0.34	58.30	5.83	1.918	21000

* MEANS ICE IS INCLUDED, IF ANY

GUYED TOWER ANALYSIS AND DESIGN COMPUTER PROGRAM BY CHI S. LEE, P.E.,

292' (OVERALL HT. = 327') MODEL 4400SRW, STORRS, CT (#02-05209) 5-23-01
90 MPH WIND + 0.5 in. ICE (NO REDUCTION) PER EIA-222-F-1996
TOWER WITH LINES IS CONSIDERED AS SOLID AREA
25% EXTRA CAPACITY FOR ALL TOWER MEMBERS AND GUY WIRES REQUIRED
INPUT DATA FILE SABRE\GUYTOWER\01J94-1.DAT PER LEEGTSF

***** RESULTS OF ANALYSIS *****

GUY ELEV ft	GUY LENGTH ft	GUY SIZE in	BREAKING STRENGTH kips	I.T. kips	GUY TENSION kips	GUY SAFETY FACTOR	SAFETY FACTOR REQ'D
57	249	7/16 EHS	20.80	2.08	6.75	3.08	2.00
107	270	5/8 EHS	42.40	4.24	16.82	2.52	2.00
167	303	3/4 EHS	58.30	5.83	21.87	2.67	2.00
217	337	3/4 EHS	58.30	5.83	19.92	2.93	2.00
257	367	3/4 EHS	58.30	5.83	17.24	3.38	2.00
284	388	3/4 EHS	58.30	5.83	16.35	3.56	2.00

GUY ELEVATION ft.	MOMENT OF INERTIA in^2ft^2	DEFLECTION OF TOWER ft.	SWAY OF TOWER deg.	TWIST OF TOWER deg.
57.00	47.35	0.506	0.51	0.00
107.00	47.35	0.785	0.32	0.05
167.00	39.78	0.891	0.10	0.00
217.00	39.78	0.967	0.09	0.00
257.00	32.89	0.927	-0.06	0.00
284.00	39.78	0.957	0.06	0.00

GUYED TOWER ANALYSIS AND DESIGN COMPUTER PROGRAM BY CHI S. LEE, P.E., Page 5

292' (OVERALL HT. = 327') MODEL 4400SRW, STORRS, CT (#02-05209) 5-23-01
90 MPH WIND + 0.5 in. ICE (NO REDUCTION) PER EIA-222-F-1996
TOWER WITH LINES IS CONSIDERED AS SOLID AREA
25% EXTRA CAPACITY FOR ALL TOWER MEMBERS AND GUY WIRES REQUIRED
INPUT DATA FILE SABRE\GUYTOWER\01J94-1.DAT PER LEEGTSP

GUY ELEV ft	LOCATION OF END FORCES	END MOMENT ft-k	VERT LOAD kips	LEG LOAD kips	TORQUE SHEAR kips	WIND SHEAR kips	TOTAL SHEAR kips	DIAG LOAD kips	GIRT LOAD kips
284	ABOVE	-73.80	6.1	25.3	0.0	4.9	4.9	4.4	0.4
	BELOW	49.55	51.1	32.7	0.0	4.5	4.5	4.0	0.5
257	ABOVE	-72.00	61.6	43.3	0.0	5.7	5.7	5.2	0.6
	BELOW	42.89	108.3	49.6	0.0	6.2	6.2	5.6	0.7
217	ABOVE	-104.75	123.9	74.4	0.0	9.3	9.3	8.4	1.1
	BELOW	72.66	174.1	81.0	0.0	6.8	6.8	6.1	1.2
167	ABOVE	152.46	191.7	112.0	0.0	9.5	9.5	8.6	1.7
	BELOW	122.83	241.3	119.2	0.0	12.8	12.8	11.6	1.8
107	ABOVE	-50.10	266.5	104.6	0.3	9.2	9.5	8.6	1.6
	BELOW	31.26	296.6	108.7	0.0	11.3	11.3	10.2	1.6
57	ABOVE	24.56	318.2	132.7	0.0	5.0	5.0	4.5	2.0
	BELOW	-91.06	326.8	137.7	0.0	3.8	3.8	3.4	2.1
0	ABOVE	-0.00	346.7	115.6	0.0	6.5	6.5	5.9	1.7

*** GUY ANCHOR REACTIONS (THE WORST CASE) ***

ANCHOR NO. 1 (GUY RADIUS = 235 ft.)

HORIZONTAL FORCE = 145.58 kips
UPLIFT FORCE = 129.70 kips
RESULTANT = 194.98 kips

*** BASE REACTIONS ***

AXIAL FORCE = 346.69 kips
HORIZONTAL FORCE = 6.53 kips
BENDING MOMENT = 0.00 ft-k

ESTIMATED TOWER STEEL WEIGHT = 26.65 kips

GUYED TOWER ANALYSIS AND DESIGN COMPUTER PROGRAM BY CHI S. LEE, P.E., Page 6

292' (OVERALL HT. = 327') MODEL 4400SRW, STORRS, CT (#02-05209) 5-23-01
90 MPH WIND + 0.5 in. ICE (NO REDUCTION) PER EIA-222-F-1996
TOWER WITH LINES IS CONSIDERED AS SOLID AREA
25% EXTRA CAPACITY FOR ALL TOWER MEMBERS AND GUY WIRES REQUIRED
INPUT DATA FILE SABRE\GUYTOWER\01J94-1.DAT PER LEEGTSP

***** SHEARS, MOMENTS AND AXIAL LOADS OF PANEL POINTS *****

SPAN NO. 7
SPAN LENGTH = 8.0 FT.

ELEV. ft.	SHEAR kips	MOMENT ft-k	VERTICAL LOAD kips	LEG LOAD kips	LEG CSR	DIAG LOAD kips	DIAG CSR	GIRT LOAD kips	GIRT CSR
292.0	0.00	0.00	0.00	0.0	0.00	0.0	0.00	0.0	0.00
291.2	2.61	-46.79	4.29	16.2	0.27	2.4	0.29	0.2	0.06
290.4	2.87	-48.98	4.49	17.0	0.28	2.6	0.32	0.3	0.07
289.6	3.12	-51.38	4.70	17.8	0.30	2.8	0.34	0.3	0.07
288.8	3.37	-53.97	4.90	18.7	0.31	3.0	0.37	0.3	0.07
288.0	3.62	-56.77	5.10	19.5	0.33	3.3	0.40	0.3	0.08
287.2	3.88	-59.77	5.30	20.6	0.35	3.5	0.43	0.3	0.08
286.4	4.13	-62.98	5.51	21.7	0.36	3.7	0.45	0.3	0.09
285.6	4.38	-66.39	5.71	22.9	0.38	4.0	0.48	0.3	0.09
284.8	4.64	-69.99	5.91	24.1	0.40	4.2	0.51	0.4	0.10
284.0	4.89	-73.80	6.12	25.3	0.42	4.4	0.54	0.4	0.10

NOTES:-
(1) CSR MEANS COMBINED STRESS RATIO
(2) DIAGONAL AND/OR GIRT LOADS ARE PER TOWER FACE
(3) DESIGN LOAD OF REDUNDANTS = 1.5% OF LEG LOAD

GUYED TOWER ANALYSIS AND DESIGN COMPUTER PROGRAM BY CHI S. LEE, P.E., Page 7

292' (OVERALL HT. = 327') MODEL 4400SRW, STORRS, CT (#02-05205) 5-23-01
90 MPH WIND + 0.5 in. ICE (NO REDUCTION) PER EIA-222-F-1996
TOWER WITH LINES IS CONSIDERED AS SOLID AREA
25% EXTRA CAPACITY FOR ALL TOWER MEMBERS AND GUY WIRES REQUIRED
INPUT DATA FILE SABRE\GUYTOWER\01J94-1.DAT PER LEEGTSP

***** SHEARS, MOMENTS AND AXIAL LOADS OF PANEL POINTS *****

SPAN NO. 6
SPAN LENGTH = 27.0 FT.

ELEV. ft.	SHEAR kips	MOMENT ft-k	VERTICAL LOAD kips	LEG LOAD kips	LEG CSR	DIAG LOAD kips	DIAG CSR	GIRT LOAD kips	GIRT CSR
284.0	4.45	49.55	51.11	32.7	0.55	4.0	0.49	0.5	0.13
281.3	2.94	40.47	54.89	31.1	0.52	2.7	0.32	0.5	0.12
278.6	-2.10	-33.67	55.64	29.2	0.49	1.9	0.23	0.4	0.12
275.9	-1.13	-29.29	56.39	28.0	0.47	1.0	0.12	0.4	0.11
273.2	-0.28	-27.39	57.14	27.7	0.46	0.3	0.03	0.4	0.11
270.5	0.56	-27.76	57.89	28.1	0.47	0.5	0.06	0.4	0.11
267.8	1.86	-31.21	58.64	29.4	0.49	1.7	0.20	0.4	0.12
265.1	2.70	-37.38	59.39	31.6	0.53	2.4	0.30	0.5	0.13
262.4	3.55	-45.82	60.14	34.5	0.58	3.2	0.39	0.5	0.14
259.7	4.88	-57.67	60.89	38.5	0.47	4.4	0.54	0.6	0.15
257.0	5.73	-72.00	61.64	43.3	0.52	5.2	0.63	0.6	0.17

NOTES:-
(1) CSR MEANS COMBINED STRESS RATIO
(2) DIAGONAL AND/OR GIRT LOADS ARE PER TOWER FACE
(3) DESIGN LOAD OF REDUNDANTS = 1.5% OF LEG LOAD

GUYED TOWER ANALYSIS AND DESIGN COMPUTER PROGRAM BY CHI S. LEE, P.E., Page 8

292' (OVERALL HT. = 327') MODEL 4400SRW, STORRS, CT (#02-05209) 5-23-01
90 MPH WIND + 0.5 in. ICE (NO REDUCTION) PER EIA-222-F-1996
TOWER WITH LINES IS CONSIDERED AS SOLID AREA
25% EXTRA CAPACITY FOR ALL TOWER MEMBERS AND GUY WIRES REQUIRED
INPUT DATA FILE SABRE\GUYTOWER\01J94-1.DAT PER LEEGTSP

***** SHEARS, MOMENTS AND AXIAL LOADS OF PANEL POINTS *****

SPAN NO. 5
SPAN LENGTH = 40.0 FT.

ELEV. ft.	SHEAR kips	MOMENT ft-k	VERTICAL LOAD kips	LEG LOAD kips	LEG CSR	DIAG LOAD kips	DIAG CSR	GIRT LOAD kips	GIRT CSR
257.0	6.21	42.89	108.26	49.6	0.60	5.6	0.68	0.7	0.20
253.0	-3.88	-23.54	114.62	45.6	0.55	3.5	0.42	0.7	0.18
249.0	-2.40	-11.11	115.65	42.1	0.51	2.2	0.26	0.6	0.17
245.0	-1.20	-3.90	116.68	40.1	0.49	1.1	0.13	0.6	0.16
241.0	-0.01	-1.47	117.72	39.7	0.48	0.0	0.00	0.6	0.16
237.0	1.18	-3.82	118.75	40.8	0.49	1.1	0.13	0.6	0.16
233.0	2.38	-10.95	119.78	43.4	0.53	2.1	0.26	0.7	0.17
229.0	3.57	-22.85	120.82	47.5	0.58	3.2	0.39	0.7	0.19
225.0	6.96	-39.53	121.85	53.1	0.64	6.3	0.76	0.8	0.21
221.0	8.15	-69.75	122.88	63.0	0.76	7.4	0.90	0.9	0.25
217.0	9.35	-104.75	123.92	74.4	0.59	8.4	0.72	1.1	0.29

NOTES:-
(1) CSR MEANS COMBINED STRESS RATIO
(2) DIAGONAL AND/OR GIRT LOADS ARE PER TOWER FACE
(3) DESIGN LOAD OF REDUNDANTS = 1.5% OF LEG LOAD

292' (OVERALL HT. = 327') MODEL 4400SRW, STORRS, CT (#02-05209) 5-23-01
90 MPH WIND + 0.5 in. ICE (NO REDUCTION) PER EIA-222-F-1996
TOWER WITH LINES IS CONSIDERED AS SOLID AREA
25% EXTRA CAPACITY FOR ALL TOWER MEMBERS AND GUY WIRES REQUIRED
INPUT DATA FILE SABRE\GUYTOWER\01J94-1.DAT PER LEEGTSP

***** SHEARS, MOMENTS AND AXIAL LOADS OF PANEL POINTS *****

SPAN NO. 4
SPAN LENGTH = 50.0 FT.

ELEV. ft.	SHEAR kips	MOMENT ft-k	VERTICAL LOAD kips	LEG LOAD kips	LEG CSR	DIAG LOAD kips	DIAG CSR	GIRT LOAD kips	GIRT CSR
217.0	6.62	72.66	174.12	81.0	0.75	6.1	0.52	1.2	0.32
212.0	-4.64	-38.73	179.66	72.1	0.67	4.2	0.36	1.1	0.29
207.0	-2.92	-19.97	181.00	66.6	0.62	2.6	0.22	1.0	0.26
202.0	-1.51	-8.88	182.34	63.6	0.59	1.4	0.12	1.0	0.25
197.0	0.28	-5.99	183.68	63.1	0.58	0.3	0.04	0.9	0.25
192.0	1.69	-10.91	185.01	65.1	0.60	1.5	0.27	1.0	0.25
187.0	3.10	-23.90	186.35	69.3	0.64	2.8	0.49	1.0	0.27
182.0	5.25	-41.94	187.69	75.8	0.70	4.7	0.83	1.1	0.30
177.0	6.66	-71.73	189.03	85.6	0.63	6.0	0.51	1.3	0.34
172.0	8.08	-108.57	190.37	97.7	0.71	7.3	0.62	1.5	0.39
167.0	9.49	-152.48	191.70	112.0	0.82	8.6	0.73	1.7	0.44

NOTES:-
(1) CSR MEANS COMBINED STRESS RATIO
(2) DIAGONAL AND/OR GIRT LOADS ARE PER TOWER FACE
(3) DESIGN LOAD OF REDUNDANTS = 1.5% OF LEG LOAD

GUYED TOWER ANALYSIS AND DESIGN COMPUTER PROGRAM BY CHI S. LEE, P.E., Page 10

292' (OVERALL HT. = 327') MODEL 4400SRW, STORRS, CT (#02-05209) 5-23-01
90 MPH WIND + 0.5 in. ICE (NO REDUCTION) PER EIA-222-F-1996
TOWER WITH LINES IS CONSIDERED AS SOLID AREA
25% EXTRA CAPACITY FOR ALL TOWER MEMBERS AND GUY WIRES REQUIRED
INPUT DATA FILE SABRE\GUYTOWER\01J94-1.DAT PER LEEGTSP

***** SHEARS, MOMENTS AND AXIAL LOADS OF PANEL POINTS *****

SPAN NO. 3
SPAN LENGTH = 50.0 FT.

ELEV. ft.	SHEAR kips	MOMENT ft-k	VERTICAL LOAD kips	LEG LOAD kips	LEG CSR	DIAG LOAD kips	DIAG CSR	GIRT LOAD kips	GIRT CSR
167.0	12.82	122.83	241.31	119.2	0.67	11.6	0.99	1.8	0.47
161.0	10.52	-54.51	251.49	101.0	0.74	9.5	0.81	1.5	0.40
155.0	-8.20	1.17	253.16	84.8	0.78	7.4	0.90	1.3	0.34
149.0	-6.52	45.18	254.83	99.2	0.92	5.9	0.72	1.5	0.35
143.0	-1.80	73.29	256.49	108.6	1.00	1.6	0.20	1.6	0.43
137.0	-0.25	79.43	258.16	111.1	0.81	0.2	0.04	1.7	0.44
131.0	1.29	76.31	259.83	110.7	0.81	1.2	0.21	1.7	0.44
125.0	2.94	63.51	261.50	107.2	0.78	2.7	0.47	1.6	0.42
119.0	5.92	41.23	263.17	100.7	0.74	5.3	0.46	1.5	0.40
113.0	7.66	0.49	264.83	88.4	0.65	6.9	0.59	1.3	0.35
107.0	9.52	-50.10	266.50	104.6	0.76	8.6	0.73	1.5	0.41

NOTES:-
(1) CSR MEANS COMBINED STRESS RATIO
(2) DIAGONAL AND/OR GIRT LOADS ARE PER TOWER FACE
(3) DESIGN LOAD OF REDUNDANTS = 1.5% OF LEG LOAD

GUYED TOWER ANALYSIS AND DESIGN COMPUTER PROGRAM BY CHI S. LEE, P.E., Page 11

292' (OVERALL HT. = 327') MODEL G400SRW, STORRS, CT (#02 05209) 5-23-01
90 MPH WIND + 0.5 in. ICE (NO REDUCTION) PER EIA-222-F-1996
TOWER WITH LINES IS CONSIDERED AS SOLID AREA
25% EXTRA CAPACITY FOR ALL TOWER MEMBERS AND GUY WIRES REQUIRED
INPUT DATA FILE SABRE\GUYTOWER\01J94-1.DAT PER LEEGTSP

***** SHEARS, MOMENTS AND AXIAL LOADS OF PANEL POINTS *****

SPAN NO. 2
SPAN LENGTH = 30.0 FT.

ELEV. ft.	SHEAR kips	MOMENT ft-k	VERTICAL LOAD kips	LEG LOAD kips	LEG CSR	DIAG LOAD kips	DIAG CSR	GIRT LOAD kips	GIRT CSR
107.0	11.34	31.26	296.61	106.7	0.79	10.2	0.87	1.6	0.43
102.0	-8.74	17.98	305.18	107.4	0.79	7.9	0.67	1.6	0.43
97.0	-7.63	58.52	306.62	120.8	0.72	6.9	0.84	1.8	0.48
92.0	-6.09	93.77	308.06	132.3	0.79	5.5	0.67	2.0	0.52
87.0	-4.97	121.41	309.50	141.5	0.84	4.5	0.55	2.1	0.56
82.0	-1.14	138.03	310.94	147.2	0.87	1.0	0.12	2.2	0.58
77.0	0.50	139.35	312.39	148.1	0.88	0.5	0.08	2.2	0.59
72.0	1.62	134.03	313.83	146.9	0.87	1.5	0.26	2.2	0.58
67.0	2.74	123.13	315.27	143.9	0.85	2.5	0.43	2.2	0.57
62.0	3.86	106.65	316.71	139.2	0.83	3.5	0.61	2.1	0.55
57.0	4.97	84.58	318.15	132.7	0.79	4.5	0.79	2.0	0.53

NOTES:
(1) CSR MEANS COMBINED STRESS RATIO
(2) DIAGONAL AND/OR GIRT LOADS ARE PER TOWER FACE
(3) DESIGN LOAD OF REDUNDANTS = 1.5% OF LEG LOAD

292' (OVERALL HT. = 327') MODEL 4400SRW, STORRS, CT (#02-C5209) 5-23-01
90 MPH WIND + 0.5 in. ICE (NO REDUCTION) PER EIA-222-F-1996
TOWER WITH LINES IS CONSIDERED AS SOLID AREA
25% EXTRA CAPACITY FOR ALL TOWER MEMBERS AND GUY WIRES REQUIRED
INPUT DATA FILE SABRE\GUYTOWER\01J94-1.DAT PER LEEGTSP

***** SHEARS, MOMENTS AND AXIAL LOADS OF PANEL POINTS *****

SPAN NO. 1
SPAN LENGTH = 57.0 FT.

ELEV. ft.	SHEAR kips	MOMENT ft-k	VERTICAL LOAD kips	LEG LOAD kips	LEG CSR	DIAG LOAD kips	DIAG CSR	GIRT LOAD kips	GIRT CSR
57.0	3.76	-51.06	326.80	137.7	0.82	3.4	0.60	2.1	0.55
51.3	-2.36	107.28	332.15	144.6	0.86	2.1	0.37	2.2	0.57
45.6	1.38	117.92	333.77	148.5	0.88	1.2	0.22	2.2	0.59
39.9	-0.40	122.97	335.38	150.6	0.89	0.4	0.06	2.3	0.60
34.2	0.58	122.44	337.00	151.0	0.90	0.5	0.09	2.3	0.60
28.5	1.63	116.29	338.61	149.6	0.89	1.5	0.26	2.2	0.59
22.8	2.01	104.20	340.23	146.3	0.87	2.4	0.41	2.2	0.58
17.1	3.59	86.55	341.84	141.2	0.84	3.2	0.57	2.1	0.56
11.4	4.57	63.27	343.46	134.4	0.80	4.1	0.73	2.0	0.53
5.7	5.55	34.43	345.07	125.9	0.75	5.0	0.88	1.9	0.50
0.0	6.53	-0.00	346.69	115.6	0.69	5.9	1.04	1.7	0.46

NOTES:-
(1) CSR MEANS COMBINED STRESS RATIO
(2) DIAGONAL AND/OR GIRT LOADS ARE PER TOWER FACE
(3) DESIGN LOAD OF REDUNDANTS = 1.5% OF LEG LOAD

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@po.state.ct.us
Web Site: www.state.ct.us/csc/index.htm

April 30, 2001

Peter W. van Wilgen
SNET Mobility, LLC
500 Enterprise Drive
Rocky Hill, CT 06067-3900

Stephen M. Howard
Nextel Communications
100 Corporate Place
Rocky Hill, CT 06067

RE: **EM-NEXTEL-078-000724** - Nextel Communications Inc. and Springwich Cellular Limited Partnership notice of intent to modify an existing WHUS telecommunications facility located on the University of Connecticut (UCONN) campus off North Eagleville Road, Storrs, Connecticut (Docket No. 179).

Dear Mr. van Wilgen and Mr. Howard:

At a public meeting held on April 26, 2001, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies, conditioned upon the Council's receipt of a structural analysis for the WHUS tower for a wind load of 90 miles per hour concurrent with 1/2-inch radial ice for all existing and approved antennas and appurtenances. This information shall be presented to the Council on or before May 28, 2001.

The proposed modifications are to be implemented as specified here and in your filings. 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. 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,

Mortimer A. Gelston
Chairman

MAG/laf

c: Honorable Elizabeth Patterson, Mayor, Town of Mansfield
Gregory Padick, Town Planner, Town of Mansfield
Paul M. Shapiro, Assistant Attorney General, UCONN
Robert P. Vietzke, Manager of Video Communications, UCONN
John Murphy, General Manager, WHUS Radio
Mike Stemmler, Connecticut State Police
Brian Benito, Bureau of Police Support

Nextel Communications
100 Corporate Place, Rocky Hill, CT 06067
860 513-5400 FAX 860 513-5444

NEXTEL

April 24, 2001

Joel M. Rinebold, Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

RE: EM-NEXTEL-078-000724-Nextel Communications Inc. and Springwich Cellular Limited partnership notice of intent to modify an existing telecommunications facility located on the University of Connecticut (UCONN) campus off of North Eagleville Road, Storrs, Connecticut

Mr. Rinebold:

As a follow up to the April 6, 2001 response to the Council's interrogatories, Nextel Communications Inc. (Nextel) has spoken with UCONN officials regarding available space on the WHUS tower. There is space available to install antennas so that Nextel can obtain a 225-foot centerline. At this height, there appears to be adequate separation between antennas so as to minimize any possibility of interference.

With 9 channels at 100 Watts ERP per channel, the worst case radio frequency power density from Nextel's antennas would be 0.0063893 mW/cm^2 or 1.1262% of the applicable standard for Nextel's frequency. Using the radio frequency power density figures from the February 2001 RCC report to UCONN, adding Nextel's equipment to the WHUS tower would bring the total radio frequency power density at the site to approximately 32.71% of the maximum permissible exposure level.

Please call me at (860) 513-5458 if you have any questions. Thank you for your consideration in this matter.

Regards,

Stephen M. Howard
Manager-Real Estate and Zoning

C: John Murphy
Paul Shaprio

RECEIVED
APR 25 2001
CONNECTICUT
SITING COUNCIL

SNET Mobility, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7730
Fax: (860) 513-7614

Peter W. van Wilgen
Director – Real Estate Operations

April 23, 2001

Paul M. Aresta, Analyst
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

RE: EM-NEXTEL-078-000724 - Nextel Communications Inc. and Springwich Cellular Limited Partnership notice of intent to modify an existing telecommunications facility located on the University of Connecticut (UCONN) campus off North Eagleville Road, Storrs, Connecticut.

Dear Mr. Aresta:

On behalf of SNET Mobility, LLC ("SNET"), formerly known as Springwich Cellular Limited Partnership, I am pleased to submit additional information in response to your questions on the referenced Exempt Modification Notice.

Further information has come to our attention as evidenced by the accompanying letter from John Murphy, General Manager of WHUS FM in Storrs dated today.

Mr. Murphy reports that the structural analysis of the WHUS tower performed in 2000 for Verizon included *hypothetical* antenna platforms for Nextel at 240' and SNET at 230'. We understand that Nextel does plan to install equipment at 240', but SNET actually intends to mount antennas at 145' instead of 230'. Thus, the loading analyzed is conservative in comparison to actual and planned loading.

Mr. Murphy also told us that there are no significant antennas actually mounted that do not appear on the structural analysis.

The results of the analysis with SNET at 230' showed that there is adequate capacity to accommodate Nextel and SNET on the tower, independent of further Council action concerning the tower. With SNET at 145', there is even more reserve capacity.

We believe that this information is definitive on the tower capacity issue and trust that the Council will take appropriate action at the April 26 meeting.

Please feel free to contact me at 513-7730 or Steve Levine at 513-7636 should you have further questions or require further clarification. Thank you for your attention to this matter.

Sincerely,

Peter W. van Wilgen / SLL

Peter W. van Wilgen
Director – Real Estate Operations

Enclosure

whus 91.7 fm

April 23, 2001

TO: Steve Levine
SNET/Cingular Wireless

FR: John Murphy

RE: WHUS Radio Tower—Recent Study of Loading Capacity

I'm writing to confirm the details of our phone conversation today, about the existing loading capacity of the WHUIS Radio tower. Based on data provided in the Verizon Wireless report to the Connecticut Siting Council, submitted January 11, 2001 to support their request to change antennas, there is more than adequate *existing capacity* for your company and Nextel to install systems of the WHUS Radio tower. There is additional loading capacity available for other clients in the future as well.

The Structural Analysis Report (#01-12035), prepared by Sabre Communications on December 15, 2000, was based on analysis of an array of proposed equipment including 24 items (page 3-4). Item #9 features twelve (12) panel antennas at 240 feet (possibly for Nextel) and Item #10 features twelve (12) panel antennas at 230 feet (possibly for SNET/Cingular). The analysis results presented on page 4 indicate "*no overstresses in any tower component or the foundations. The results also show the following minimum reserve capacities (additional amount of allowable load beyond the calculated loads): Guy wires (25%), Legs (23%), Diagonals (29%), Foundations (27%).*"

After your recent contact with John Zatowski, WHUS Consulting Engineer, it was established that you would prefer to install equipment closer to your original location near the 145-foot level. By lowering your antennas from 230 feet to 145 feet, you significantly reduce tower loading and therefore increase the amount of additional available capacity for other future clients, above and beyond the amount indicated in the Sabre analysis.

This information should help you with your efforts to receive Council approval of your proposal in the near future. After the Council completes its pending review of the Sprint/UConn tower, the current "freeze" on tower activity at UConn will end. At that point the University will move forward with its tower management plans, and the proposals presented to the Council last summer by your company and Nextel can also move forward.

I am sending a copy of this memo to Paul Shapiro, UConn Assistant Attorney General Paul Shapiro, to keep him informed of our progress and to keep all work on lease agreements moving forward in the appropriate manner.

If you need any more information please call anytime at 860-486-0556 or 860-377-7166. I look forward to seeing you later this week and to achieving a mutual success with this project as soon as possible.

BOX U-8 R, STORRS, CT 06269-3008
University of Connecticut
Business Phone (860) 486-4007
Request Line 429 WHUS

SNET Mobility, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7730
Fax: (860) 513-7614

Peter W. van Wilgen
Director – Real Estate Operations

RECEIVED
APR 24 2001
CONNECTICUT
SITING COUNCIL

April 20, 2001

Paul M. Aresta, Analyst
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

RE: EM-NEXTEL-078-000724 - Nextel Communications Inc. and Springwich Cellular Limited Partnership notice of intent to modify an existing telecommunications facility located on the University of Connecticut (UCONN) campus off North Eagleville Road, Storrs, Connecticut.

Dear Mr. Aresta:

On behalf of SNET Mobility, LLC ("SNET"), formerly known as Springwich Cellular Limited Partnership, I am pleased to submit these answers to your questions on the referenced Exempt Modification Notice.

1. SNET hereby revises EM-NEXTEL-078-000724, insofar only as it pertains to SNET, to propose SNET's center of radiation at 145 feet above ground level. Noting that the "Tower Consolidation Feasibility Study" shows the original proposed tower height of 150 feet already in use by PageNet, Steve Levine from this office has spoken with John Zatowski, WHUS Engineer. Mr. Zatowski has determined that the 140 - 150 foot height interval is open and has reserved that segment for SNET with center of radiation approximately 145 feet.

2. The number of carriers and antennas involved in this project makes it impracticable for any single carrier to perform a tower structural analysis until the comprehensive antenna inventory and configuration proposal is determined. In turn, this issue depends on pending Siting Council decisions with regard to the tower consolidation issue. WHUS, being the entity most knowledgeable on the inventory / configuration matter, will consider performing the comprehensive structural analysis centrally at the appropriate time and dividing the cost among interested carriers. (Personal communication to Steve Levine by John Zatowski, WHUS, 4/20/2001.) SNET would be pleased to participate in the joint comprehensive analysis if it goes forward. In any event, SNET will not mount its antennas on the WHUS tower until a meaningful structural analysis is presented to the Council showing that the tower is structurally capable of supporting the actual inventory and configuration.

3. Power density for center of radiation at 145 feet above ground level and cumulative power density.

Company	Centerline Height (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density † (mW/cm^2)	Standard Limits (mW/cm^2)	Percent of Limit
Existing *	--	--	--	--	0.1530	--	31.6
SNET	145	880-894	19	100	0.0325	0.5867	5.5
Total							**37.1 %**

* Values taken from "Tower Consolidation Feasibility Study," RCC Consultants, February 2001.
† Please note that the standard power density equation provided by the Council in its memo of January 22, 2001 incorporates a ground reflection factor of 2.56 as described in FCC OET Bulletin No. 65.

Please feel free to contact me at 513-7730 or Steve Levine at 513-7636 should you have further questions or require further clarification. Thank you for your attention to this matter.

Sincerely,

Peter W. van Wilgen
Director – Real Estate Operations

Nextel Communications
100 Corporate Place, Rocky Hill, CT 06067
860 513-5400 FAX 860 513-5444

NEXTEL®

RECEIVED
APR - 6 2001
CONNECTICUT
SITING COUNCIL

April 6, 2001

Joel M. Rinebold, Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

RE: EM-NEXTEL-078-000724-Nextel Communications Inc. and Springwich Cellular Limited partnership notice of intent to modify an existing telecommunications facility located on the University of Connecticut (UCONN) campus off of North Eagleville Road, Storrs, Connecticut

Mr. Rinebold:

Attached are Nextel Communications Inc.'s responses to the March 26, 2001, questions from the Council. I will be out of the office until April 23. If you have any additional questions that you need answered in the interim, please contact Ron Clark at (860) 883-2112.

Thank you for your consideration in this matter.

Regards,

Stephen M. Howard
Manager-Real Estate and Zoning

c: Peter van Wilgen
Dawn Holmes
John Murphy
Paul Shaprio
Stephen Humes

Question:

Are there any changes to Nextel's or Springwich's request to modify the existing 327-foot telecommunications tower, dated July 24, 2000?

Response:

Nextel's technical information has not changed. However, based upon the December 27, 2000, report by RCC Consultants, Inc. for the University of Connecticut (UCONN), areas on the tower originally offered to Nextel may not be available. Regardless of what the Council's decision is on the WHUS and Sprint/UCONN towers, Nextel will work with UCONN to determine the heights that can be used and modify the filing accordingly.

Question:

If the Council acknowledges Nextel's and Springwich's request to modify the existing 327-foot telecommunications tower, approved by the Council in Docket 179, what is the schedule for the removal of the 80-foot SNET tower?

Response:

Springwich will answer this question under separate cover.

Question:

Is Voicestream Communication and Bell South Wireless Data Inc. aware of Springwich's proposal to remove the 80-foot SNET tower? Has Voicestream or Bell South evaluated whether the existing 327-foot WHUS tower can accommodate their existing or proposed antennas and associated equipment?

Response:

Springwich will answer this question under separate cover.

Question:

Is there sufficient space and structural capacity on the existing 327-foot WHUS tower for the antennas for Nextel, Springwich, Voicestream, and Bell South Wireless, if the antennas on the 250-foot Sprint/UCONN tower are not relocated to the existing 327-foot WHUS tower?

Response:

A preliminary analysis of the WHUS tower done in 1999 indicates there is sufficient structural capacity to on the tower to support additional antenna arrays. The Verizon structural analysis, submitted earlier this year, appears to support this preliminary finding. As referenced in its report, RCC Consultants, Inc., will be submitting a structural analysis of the WHUS tower to UCONN. Once final locations on the tower are assigned, this structural will allow a more complete final analysis to take place if the proposed modification is approved.

Question:

Would the proposed Nextel antennas cause interference with the existing public safety 800-MHz antennas?

Response:

Properly spaced on this or any tower, Nextel's antennas will not cause interference with the existing public safety 800-MHZ antennas. Nextel will continue to work with UCONN and the State Police to ensure proper antenna spacing.

SNET Mobility, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7730
Fax: (860) 513-7614

Peter W. van Wilgen
Director – Real Estate Operations

April 5, 2001

RECEIVED
APR - 6 2001
CONNECTICUT
SITING COUNCIL

Joel M. Rinebold, Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

RE: EM-NEXTEL-078-000724 - Nextel Communications Inc. and Springwich Cellular Limited Partnership notice of intent to modify an existing telecommunications facility located on the University of Connecticut (UCONN) campus off North Eagleville Road, Storrs, Connecticut.

Dear Mr. Rinebold:

On behalf of SNET Mobility, LLC ("SNET"), formerly known as Springwich Cellular Limited Partnership, I am pleased to submit SNET's Responses to the Interrogatories dated 3/26/2001 sent to Nextel Communications concerning the referenced exempt modification notice. Enclosed are the original and twenty (20) copies of our Responses. Nextel Communications will separately address the Siting Council request as it pertains to their proposed modifications.

Please feel free to contact me at 860-513-7730 should you have further questions or require further clarification. Thank you for your attention to this matter.

Sincerely,

Peter W. van Wilgen
Director – Real Estate Operations

cc: S. Howard, Nextel Communications
D. Holmes, SBC

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Nextel Communications Inc. and Springwich Cellular Limited Partnership notice of intent to modify an existing telecommunications facility located on the University of Connecticut (UCONN) campus off North Eagleville Road, Storrs, Connecticut.

EM-NEXTEL-078-000724

April 5, 2001

RESPONSES TO INTERROGATORIES

Note: Due to corporate merger and reorganization, the successor to Springwich Cellular Limited Partnership is SNET Mobility, LLC ("SNET")

1. **Are there any changes to Nextel's or Springwich's request to modify the existing 327-foot telecommunications tower, dated July 24, 2000?**

SNET proposes to modify its antenna array at the UCONN tower site. Instead of installing nine (9) Allgon Model 7120.16 panel antennas on the WHUS tower, we propose to install twelve (12) panel antennas as follows:

- Six (6) Decibel Products Model DB846H80(E)-SX
- Three (3) EMS Model RS90-12-000A-2
- Three (3) Allgon Model 7125.18.05

Specification sheets for the above antennas are attached.

2. **If the Council acknowledges Nextel's and Springwich's request to modify the existing 327-foot telecommunication tower, approved by the Council in Docket 179, what is the schedule for the removal of the 80-foot SNET tower?**

SNET does not have ownership of the 80-foot tower. Instead the ownership belongs to, and has at all times been in the name of, Southern New England Telephone, a subsidiary of Southwestern Bell Co., Inc. ("SBC"). SBC is a business entity separate from SNET, and SNET is merely a tenant on the tower pursuant to an arms-length transaction.

When SNET submitted the referenced exempt modification notice, it erroneously stated that the 80-foot tower would be removed. In the interim, we have been informed by SBC that it has other paying tenants on the tower in addition to SNET and has no plans to dismantle the tower. (Please see the attached letter from SBC addressing these interrogatories.) Consequently, there is no schedule for removal of the 80-foot tower. We apologize for the earlier miscommunication.

Despite SBC's plans to retain the 80-foot tower, SNET intends to terminate the existing lease and move its equipment to the WHUS tower as described in the notice of exempt modification. The additional antenna height this tower provides is required to upgrade and improve SNET's service to the University campus.

3. **Is VoiceStream communications and Bell South Wireless Data Inc. aware of Springwich's proposal to remove the 80-foot SNET tower? Has VoiceStream or Bell South evaluated whether the existing 327-foot WHUS tower can accommodate their existing or proposed antennas and associated equipment?**

As discussed in the response to Interrogatory No. 2, SBC has no plans to remove the 80-foot tower.

SNET is not aware of whether Bell South or VoiceStream has evaluated the WHUS tower, or whether they have plans to move equipment to the WHUS tower.

4. **Is there sufficient space and structural capacity on the existing 327-foot WHUS tower for the antennas for Nextel, Springwich, VoiceStream, Bell South Wireless, if the antennas on the 250-foot Sprint/UCONN tower are not relocated to the existing 327-foot WHUS tower?**

To SNET's knowledge, there is sufficient space and structural capacity on the WHUS tower for SNET's and Nextel's antennas. SNET is not in a position to evaluate or respond any further to this question. We recommend that UCONN have its tower consolidation plan contractor address this issue.

5. **Would the proposed Nextel antennas cause interference with the existing public safety 800-Mhz antennas?**

Nextel Communications will respond to this interrogatory under separate cover.

Respectfully submitted,

SNET Mobility, LLC

By: _____
Peter W. van Wilgen
Director – Real Estate Operations

310 Orange Street
Floor 6
New Haven, CT 06510

SNET

April 3, 2001

Mr. Joel M. Rinebold
Executive Director
State of Connecticut
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: EM-NEXTEL-078-000724 – Nextel Communications Inc. and Springwich Cellular Limited Partnership notice of intent to modify an existing telecommunications facility located on the University of Connecticut (UCONN) campus off North Eagleville Road, Storrs, Connecticut. (Docket 179)

Dear Mr. Rinebold:

In response to the Nextel Communications' Interrogatories in relation to the letter dated March 26, 2001 regarding the above mentioned docket, SNET's response to the list of five questions are as follows:

1. SNET would not be aware of any changes for this does not relate to an SNET tower.

2. As of this date, there are not any plans to remove the SNET tower, therefore, I am not aware of any schedule.

3. Again, I do not know how Voicestream would be aware of a removal of SNET's tower because no removal is planned. We are not involved in Voicestream or Bell South's evaluation process'.

4. SNET would not be aware of the space and structural capacity of the 327-foot WHUS tower.

5. The possible interference caused by Nextel would be an initiate of theirs.

In summary, SNET does not have any current plans to remove the 80-foot tower presently located in Storrs, Connecticut.

Should you have any questions, please contact me at (203)771-5013 or dh2967@sbc.com.

Sincerely,

Dawn Holmes

Dawn Holmes
Manager-Real Estate Administration

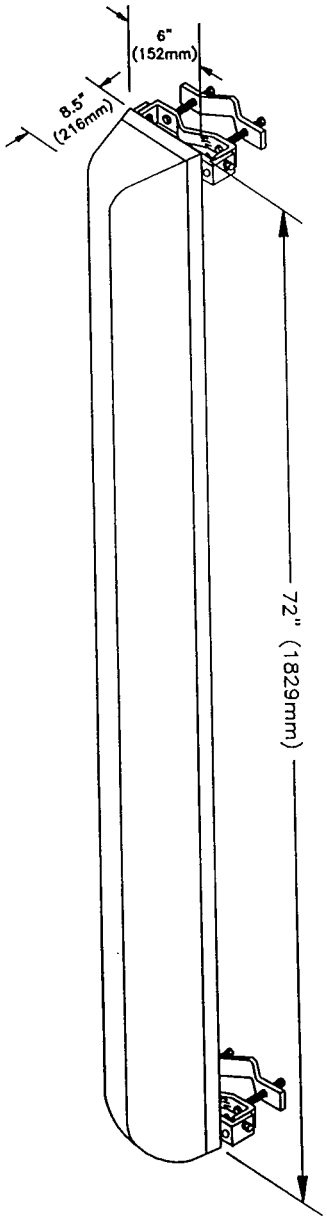
Cc: Don Wilson
RCC Consultants

DB846H80(E)-SX

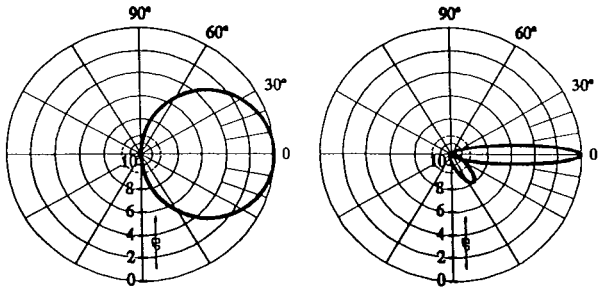
dB Director®

14 dBd, 80°, Directional Log Periodic Antenna, 806-896 MHz

Model Number	DB846H80-SX	DB846H80E-SX
Termination	Type N-Female	7/16 DIN
Frequency Range	806-896 MHz	
Gain	14 dBd (16.1 dBi)	
VSWR	< 1.5:1	
Beamwidth (3dB from max)	Horizontal: 80° ± 5° Vertical: 11° ± 1°	
Front to Back Ratio	> 40 dB	
Polarization	Vertical	
Max. Input Power	500 Watts	
Application	Amps Cellular and Trunking	
Weight	15 lbs (6.8 kg)	
Wind Area	3 ft² (0.28 m²)	
Wind Load	120 lbf (534N) 53.9 kp (at 100 mph)	
Max. Wind Speed	125 mph (201 km/h)	
Material	Radiators: Brass Back Panel: Pass. Aluminum Radome: ABS Mounting Hdw: Galvanized Steel	
Color	Normal: Gray	
Mounting	DB380 pipe mount kit (max. 3.5" OD), included.	
Downtilt Brackets (Optional)	DB5083	
Weather Protection	Fully protected by metal and ABS.	
Lightning Protection	All metal parts grounded.	
Packing Size	85" x 10" x 15" (216 x 25 x 38 cm)	
Shipping Weight	43.5 lbs (19.7 kg)	



Antenna Patterns



Horizontal Vertical

Electrical Downtilt (T) Option

Model Number	Downtilt	Gain
846H80T5E-SX	5°	13.7 dBd (15.8 dBi)

Specifications are for reference only. 099214-001D 05/00

DECIBEL PRODUCTS

A Division of Allen Telecom Inc.

8635 Stemmons Freeway • P. O. Box 569610 • Dallas, Texas 75356-9610

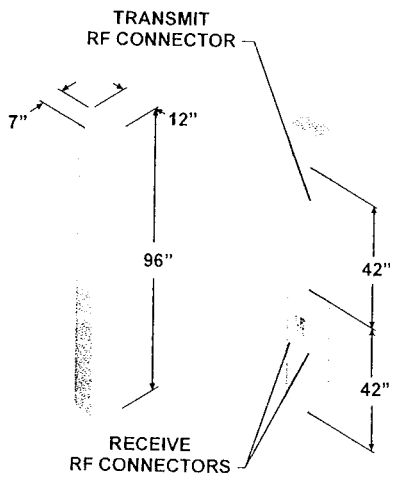
214 / 631-0310 • Fax: 214 / 631-4706

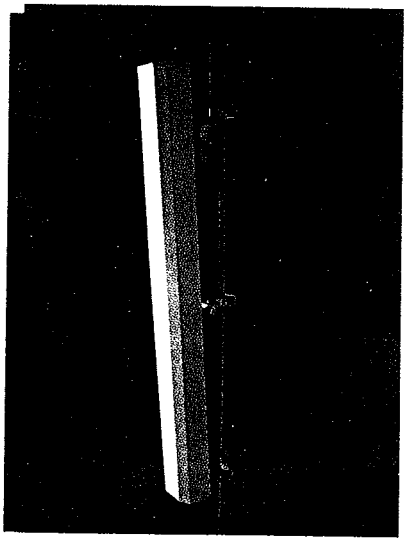
EMS WIRELESS

OptiRange™

RS90-12-XXXX-2

806 MHz - 896 MHz (A)
8[illegible] MHz - 96[illegible] MHz (M)





90° beamwidth

11.7 dBd gain

Vertical Tx
±45° Rx

96 inch

SPECIFICATIONS

Electrical

Azim[illegible] Beamwidth	90°
Elev[illegible]n Beamwidth	14.6°
Gain	11.7 dBd (13.8 dBi)
Transmit Polarization	Vertical
Receive Polarization	Slant, ±45°
Transmit Port to Receive Port Isolation	≥40 dB
Receive Port to Receive Port Isolation	≥20 dB
Front-to-Back Ratio	≥24 dB
Electrical Downtilt Options	0°, 5°
VSW[illegible]	1.35:1 Max
Cor[illegible]tors	3;Type N or 7-16 DIN (female)
Power Handling	500 Watts CW
Passive Intermodulation	<-147 dBc (2 tone @ +43 dBm (20W) ea.)
Lightning Protection	Chassis Ground

Mechanical

Dimensions (L x W x D)	96in x 12in x 7in (243.8 cm x 30.5 cm x 17.8 cm)
Rated Wind Velocity	130 mph (209 kph)
Equivalent Flat Plate Area	8ft² (.74 m²)
Front Wind Load @ 100 mph (161 kph)	230 lbs (1023 N)
Side Wind Load @ 100 mph (161 kph)	134 lbs (597 N)
Weight	36 lbs (16.4 kg)

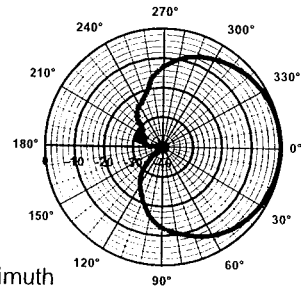
Note: Patent Pending and US Patent number 5, 757, 246.

Values and patterns are representative and variations may occur. Specifications may change without notice due to continuous product enhancements. Digitized pattern data is available from the factory or via the web site www.emswireless.com and reflect all updates.

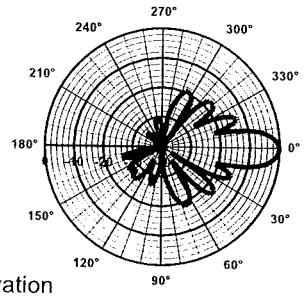
MOUNTING OPTIONS

Model Number	Description	Comments
MTG-P00-30	Standard Mount (Supplied with antenna)	Mounts to Wall or 1.5 inch to 5.0 inch O.D. Pole (3.8 cm to 12.7 cm)
MTG-S02-30	Swivel Mount	Mounting kit providing azimuth adjustment.
MTG-DXX-30*	Mechanical Downtilt Kits	0° - 10° or 0° - 15° Mechanical Downtilt
MTG-CXX-30*	Cluster Mount Kits	3 antennas 120° apart or 2 antennas 180° apart
MTG-C02-30	U-Bolt Cluster Mount Kit	3 antennas 120° apart , 4.5" O.D. pole.
MTG-TXX-30*	Steel Band Mount	Pole diameters 7.5" - 45"

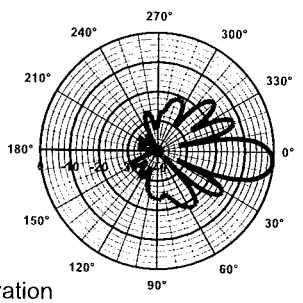
* Model number shown represents a series of products. See mounting options section for specific model number.



Azimuth



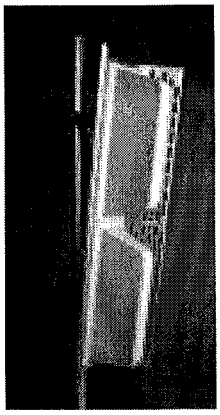
Elevation
0° Downtilt



Elevation
5° Downtilt

Electrical Specifications

	7125.18 (A-800-60-18i)	7129.12 (A-800-85-9i)
Gain	16 dBd (18 dBi)	7 dBd (9 dBi)
Polarization	linear, vertical	linear, vertical
VSWR, 50Ω	<1.5:1 (806 MHz to 824 MHz)	<1.5:1 (806 MHz to 824 MHz)
VSWR, 50Ω	<1.4:1 (824 MHz to 896 MHz)	<1.4:1 (824 MHz to 896 MHz)
Horizontal 3dB beamwidth	60°	85°
Vertical 3dB beamwidth	8°	60°
Custom electrical downtilts	0°	0°
40 degree cone Front-to-back ratio	>30 dB	>30 dB
Suppression of first upper side lobe	>17 dB	>20 dB
Maximum CW input power	500W	300W
Two tone intermodulation 3rd order	<-103 dBm for 2x20W (146 dBc at 2x43 dBm)	<-103 dBm for 2x20W (146 dBc at 2x43 dBm)

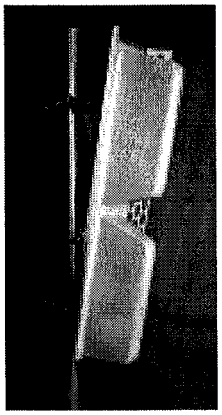


Mechanical Specifications

Connector	7/16 DIN or Type N side mounted	7/16 DIN side mounted
Height	102" (2600 mm)	14.2" (360 mm)
Width	17.3" (440 mm)	13" (330 mm)
Depth	12.6" (320 mm)	11.4" (290 mm)
Weight	38.5 lbs (17.5 kg)	4.4 lbs (2 kg)
Survival wind speed	156 mph (70 m/s)	156 mph (70 m/s)
Maximum wind area	10.2 sq.ft (0.95 sq.m)	1.2 sq.ft (0.11 sq.m)
Maximum wind load @100mph	268 lbf (1190 N)	31.5 lbf (138 N)

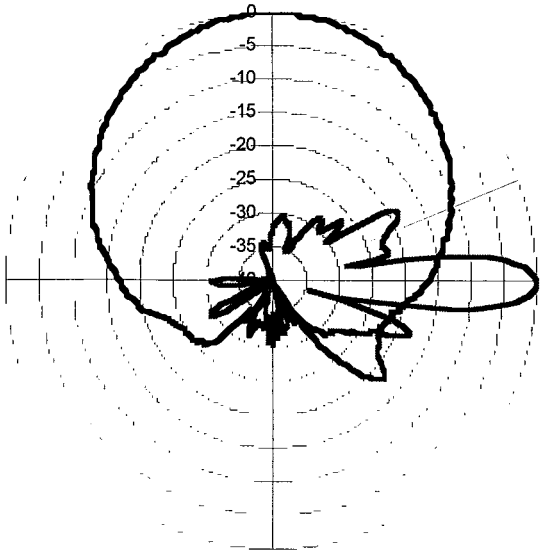
*All metallic components DC grounded for Lightning Protection

Mounting Hardware Options for Installation		
1) Pole mount	2165.10	2165.10
2) Combined pole mount/downtilt bracket	7254.10 (-0.5° to +12°)	N/A

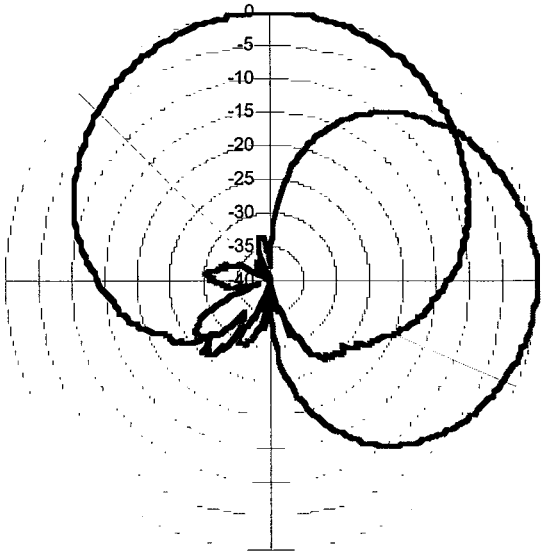


Comments
Gain is typical within frequency band.
Front-to-back ratio is defined within 20° from the backwards direction in any plane.
Sidelobe suppression and null fill is relative to peak of main beam.
Radome color is NCS 2502-B (RAL 7035)(gray).

For a complete list of released models pertaining to gain, electrical downtilt and connector placement, please see the quick reference guide on page 22.



Typical Horizontal and Vertical 7125.18 Patterns



Typical Horizontal and Vertical 7129.12 Patterns

A poster displaying a comparison of antenna patterns has been included at the back of the catalog.

ALLGON

SNET

310 Orange Street
Floor 6
New Haven, CT 06510

April 3, 2001

Mr. Joel M. Rinebold
Executive Director
State of Connecticut
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: EM-NEXTEL-078-000724 – Nextel Communications Inc. and Springwich Cellular Limited Partnership notice of intent to modify an existing telecommunications facility located on the University of Connecticut (UCONN) campus off North Eagleville Road, Storrs, Connecticut. (Docket 179)

Dear Mr. Rinebold:

In response to the Nextel Communications' Interrogatories in relation to the letter dated March 26, 2001 regarding the above mentioned docket, SNET's response to the list of five questions are as follows:

1. SNET would not be aware of any changes for this does not relate to an SNET tower.

2. As of this date, there are not any plans to remove the SNET tower, therefore, I am not aware of any schedule.

3. Again, I do not know how Voicestream would be aware of a removal of SNET's tower because no removal is planned. We are not involved in Voicestream or Bell South's evaluation process'.

4. SNET would not be aware of the space and structural capacity of the 327-foot WHUS tower.

5. The possible interference caused by Nextel would be an initiate of theirs.

In summary, SNET does not have any current plans to remove the 80-foot tower presently located in Storrs, Connecticut.

Should you have any questions, please contact me at (203)771-5013 or dh2967@sbc.com.

Sincerely,

Dawn Holmes

Dawn Holmes
Manager-Real Estate Administration

Cc: Don Wilson
RCC Consultants

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@po.state.ct.us
Web Site: www.state.ct.us/csc/index.htm

March 26, 2001

Stephen M. Howard
Manager Real Estate and Zoning
Nextel Communications
100 Corporate Place
Rocky Hill, CT 06067

RE: EM-NEXTEL-078-000724 - Nextel Communications Inc. and Springwich Cellular Limited Partnership notice of intent to modify an existing telecommunications facility located on the University of Connecticut (UCONN) campus off North Eagleville Road, Storrs, Connecticut. (Docket 179)

Dear Mr. Howard:

The Connecticut Siting Council (Council) received a request on July 24, 2000, from Nextel Communications Inc. (Nextel) and Springwich Cellular Limited Partnership (Springwich) to modify the existing 327-foor WHUS telecommunications facility located on the University of Connecticut (UCONN) campus off North Eagleville Road, in Storrs, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72. The Council postponed action, at the request of the University of Connecticut, until a tower consolidation plan was completed. This tower consolidation plan has been received and is now under review by the Council. A copy is attached for your information.

To help expedite the Council's review of this plan and your request, the Council requests your responses to the enclosed questions no later than April 7, 2001

Thank you for your cooperation and consideration.

Very truly yours,

Joel M. Rinebold
Executive Director

JMR/grg

c: Peter W. van Wilgen, Springwich Cellular Limited Partnership
Dawn E. Holmes, Southern New England Telephone
John Murphy, WHUS
Paul Shapiro, Assistant Attorney General
Stephen J. Humes, Esq., Voicestream Wireless Corp.

Enclosure: (1)

I:\siting\em\nextel\storrs\howard.doc

Nextel Communications' Interrogatories
March 26, 2001

1. Are there any changes to Nextel's or Springwich's request to modify the existing 327-foot telecommunications tower, dated July 24, 2000?

2. If the Council acknowledges Nextel's and Springwich's request to modify the existing 327-foot telecommunication tower, approved by the Council in Docket 179, what is the schedule for the removal of the 80-foot SNET tower?

3. Is Voicestream communications and Bell South Wireless Data Inc. aware of Springwich's proposal to remove the 80-foot SNET tower? Has Voicestream or Bell South evaluated whether the existing 327-foot WHUS tower can accommodate their existing or proposed antennas and associated equipment?

4. Is there sufficient space and structural capacity on the existing 327-foot WHUS tower for the antennas for Nextel, Springwich, Voicestream, Bell South Wireless, if the antennas on the 250-foot Sprint/UCONN tower are not relocated to the existing 327-foot WHUS tower?

5. Would the proposed Nextel antennas cause interference with the existing public safety 800-MHz antennas?

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
Fax: (860) 827-2950

August 3, 2000

Honorable Michael H. Schor
Mayor
Town of Mansfield
4 South Eagleville Road
Mansfield, CT 06268

RE: EM-NEXTEL-078-000724 - Nextel Communications Inc. and Springwich Cellular Limited Partnership notice of intent to modify an existing telecommunications facility located on the University of Connecticut (UCONN) campus off North Eagleville Road, Storrs, Connecticut.

Dear Mayor Schor:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for August, 10, 2000, at 1:30 p.m. in Hearing Room Three, Ten Franklin Square, New Britain, Connecticut.

Please call me or inform the Council if you have any questions or comments regarding this proposal.

Thank you for your cooperation and consideration.

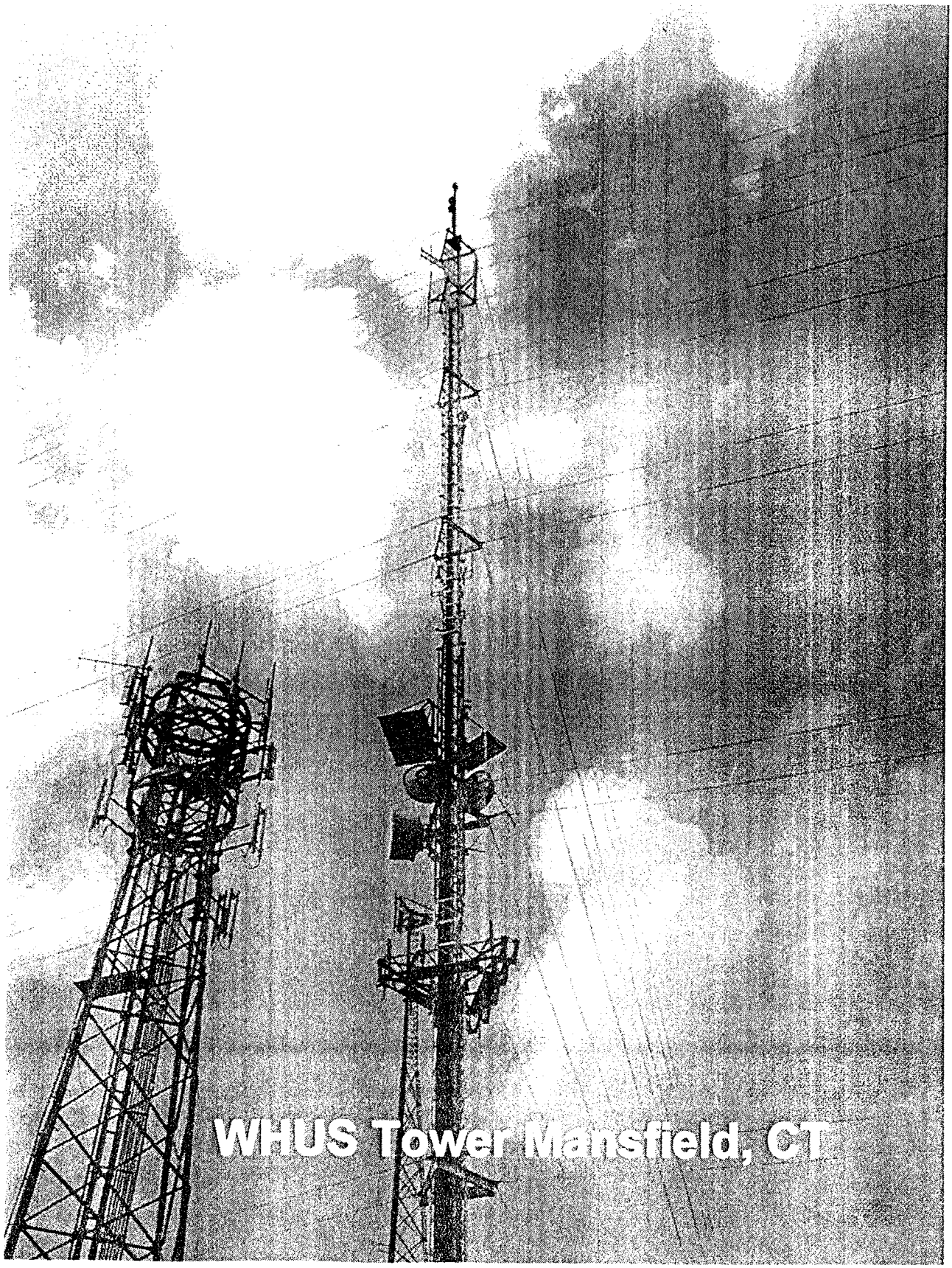
Very truly yours,

Joel M. Rinebold
Executive Director

JMR/RKE/grg

Enclosure: Notice of Intent

I:\siting\em\nextel\storrs\schor.doc


WHUS Tower Mansfield, CT

EM-Nextel-018-000724

Nextel Communications
100 Corporate Place, Rocky Hill, CT 06067
860 513-5400 FAX 860 513-5444

NEXTEL

July 24, 2000

RECEIVED
JUL 24 2000
CONNECTICUT
SITING COUNCIL

Mr. Mortimer A. Gelston, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Dear Chairman Gelston:

Please find enclosed an original and twenty copies of a request from Nextel Communications Inc. ("Nextel") and Springwich Cellular Limited Partnership "(SCLP") to Modify an Exempt Tower and Associated Equipment at an existing telecommunications facility located on the University of Connecticut (UCONN) campus off North Eagleville Road, Storrs, Connecticut. This facility is owned and operated by WHUS Radio and was certificated by the Council on November 19, 1997 (Docket No. 179).

Nextel desires to make shared use of this facility to provide wireless system coverage to this portion of Mansfield, rather than have the need to possibly construct a new communications tower in the general area. SCLP proposes to make shared use of the WHUS tower as well. As previously requested by the Council, SCLP will remove its adjacent smaller tower and associated antennas.

The enclosed notice and attached materials detail how the addition of the proposed antennas and associated equipment at the tower site meet all of the criteria set forth in Section 16-50j-72(b)(2) of the Regulations of Connecticut State Agencies and therefore is an exempt modification pursuant to Section 16-50j-73 of the regulation.

Please call Stephen M. Howard at (860) 513-5458 if you have any questions about the Nextel proposal or Peter W. van Wilgen at (860) 513-7730 with questions concerning the SCLP proposal. Thank you for your consideration in this matter.

Respectfully submitted,

Stephen M. Howard
Manager Real Estate and Zoning
Nextel Communications, Inc.

Peter W. van Wilgen
Director, Real Estate Operations
Springwich Cellular Limited Partnership

Enclosure

cc: Elizabeth Paterson, Mayor
John Murphy, WHUS
Paul Shapiro, AAG

WHUS Radio Tower
Mansfield (Storrs), Connecticut

Pursuant to Section 16-50i(a)(5) of the Connecticut General Statutes and Section 16-50j-72(b)(2), as amended, of the Regulations of Connecticut State Agencies, Nextel Communications Inc., ("Nextel") and Springwich Cellular Limited Partnership ("SCLP") notify the Connecticut Siting Council of their intent to modify an existing telecommunications facility located on the University of Connecticut ("UCONN") campus off of North Eagleville Road, Storrs, Connecticut. The facility is owned by WHUS Radio.

BACKGROUND

The WHUS facility consists of a 327-foot AGL guyed lattice tower that is shared by WHUS, the Connecticut State Police, Bell Atlantic Mobile, PageNet, Connecticut Public Radio, Airtouch Paging, International Business Machines, and an amateur radio operator.

DISCUSSION

Nextel

Nextel plans to install twelve (12) panel antennas on the existing facility with the centerline of the antennas at the 248-foot foot level (centerline) of the 327-foot tower (see Attachment A). Two (2) GPS receive-only antennas will be installed on the Nextel shelter. The recently constructed facility has been designed to maximize co-location opportunities and has been designed with adequate structural capability.

Nextel will install its associated radio equipment in a 10-foot by 20-foot equipment shelter. This shelter will be placed at the base of the facility, completely within the existing leased area. A portion of the existing fence will be removed and replaced in order to accommodate the proposed shelter (see Attachment A).

SCLP

Springwich Cellular Limited Partnership is licensed by the Federal Communications Commission ("FCC") to provide cellular telephone service in the Hartford New England County Metropolitan Area ("NECMA"), which includes the area to be served by SCLP's proposed installation.

SCLP proposes to install nine (9) Allgon Model 7120.16 antennas, approximately 52 inches in height, on an antenna platform on the existing WHUS tower with the center of radiation at approximately 150 feet AGL. SCLP proposes to leave its equipment in an existing 12' x 26' equipment shelter owned by SCLP located at the base of the tower. All existing SCLP antennas and an existing smaller adjacent tower will be removed.

POWER DENSITY INFORMATION

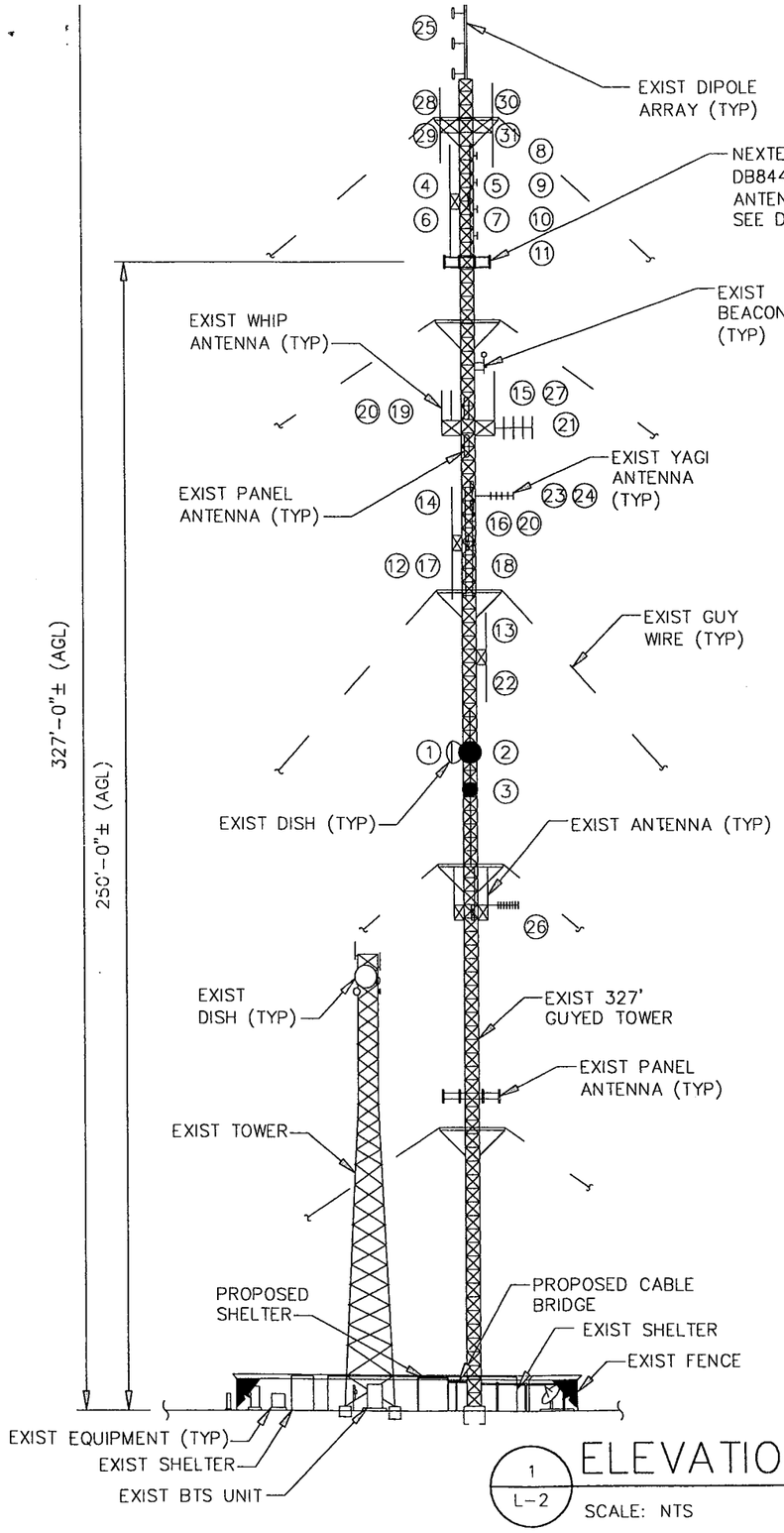
Based upon the Docket No. 179 record, the "worst case" power density level without the proposed antennas has been calculated to be approximately 12.94% of the State/Federal Standard for mixed frequency sites. The addition of Nextel's antennas will, using "worst case" calculations, add 0.0052 mW/cm², or 0.912% of the standard applicable to Nextel's frequencies (0.56733 mW/cm^2) and bring the total combined power density level to approximately 13.852% of the State/Federal Standard. The further addition of SCLP's antennas, using "worst case" calculations add 0.033 mW/cm², or 5.66% of the standard applicable to SCLP's frequencies (0.5867 mW/cm^2) and bring the total combined power density level to approximately 19.512% of the State/Federal Standard.

CONCLUSION

The proposed additions do not constitute a "modification" of an existing facility as defined in Connecticut General Statutes Section 16-50i(d) and are consistent with the exception criteria found in Section 16-50j-72(b)(2) of the Regulations of Connecticut State Agencies in that the addition of Nextel's and SCLP's antennas and equipment will not increase the existing tower height or extend the boundaries of the site; will not increase noise levels by six (6) decibels or more at the site's boundaries; and will not increase the total radio frequency electromagnetic radiation above the standard set forth in Section 22(a)–162 of the Connecticut General Statutes. In summary, this proposed addition will not have a substantial adverse environmental effect.

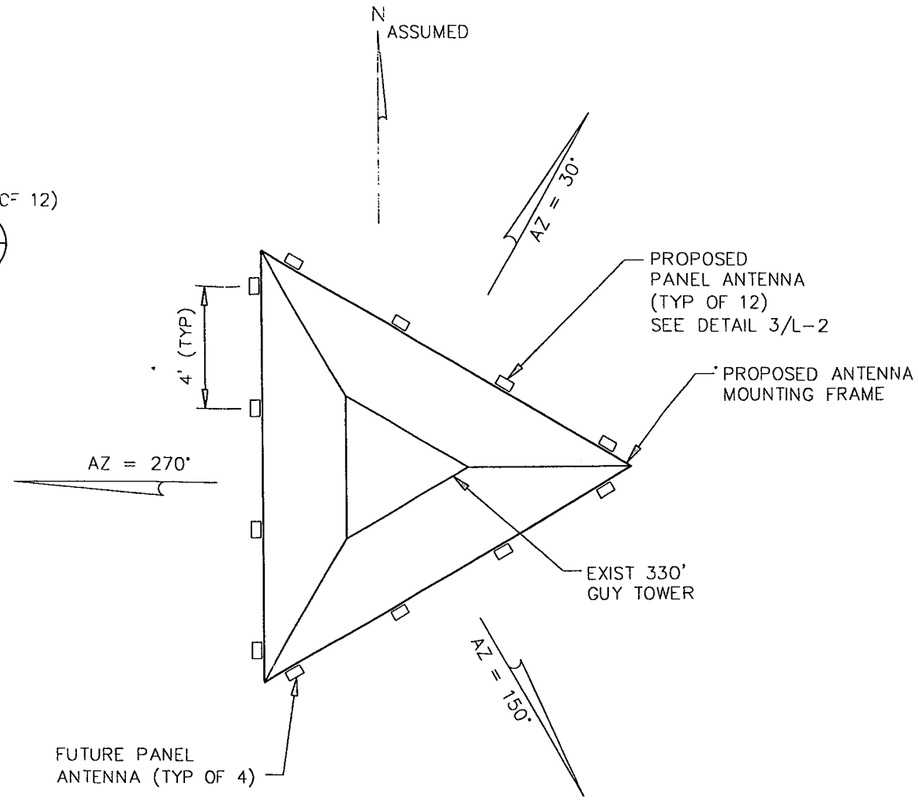
For the reasons discussed above, Nextel and SCLP respectfully request that the Council acknowledge that this Notice of Modification meets the Council's exemption criteria, and permit Nextel and SCLP to share use of this facility.

ATTACHMENT A



1/L-2 ELEVATION

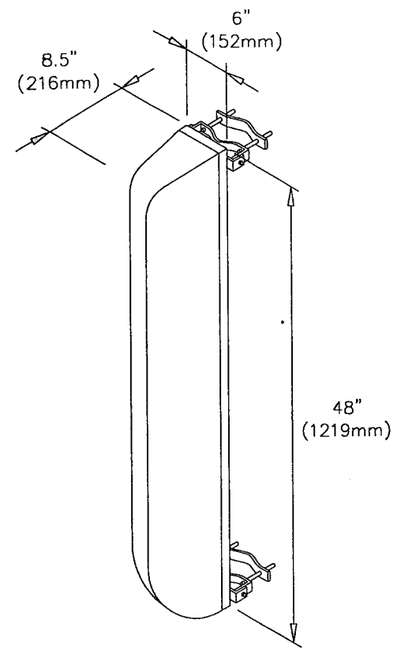
SCALE: NTS



2/L-2 ANTENNA MOUNTING PLAN

SCALE: 1" = 5'

5'-0" 0 2'-6" 5'-0" 10'-0"



12 dBd (14.1 dBi) GAIN DIRECTIONAL LOG PERIODIC ANTENNA WITH 90°HORIZONTAL 3 dB BEAMWIDTH FOR 806-960 MHz

3/L-2 DETAIL

SCALE: 3/4" = 1'-0"

1'-4" 0 0'-8" 1'-4" 2'-8"

LEGEND

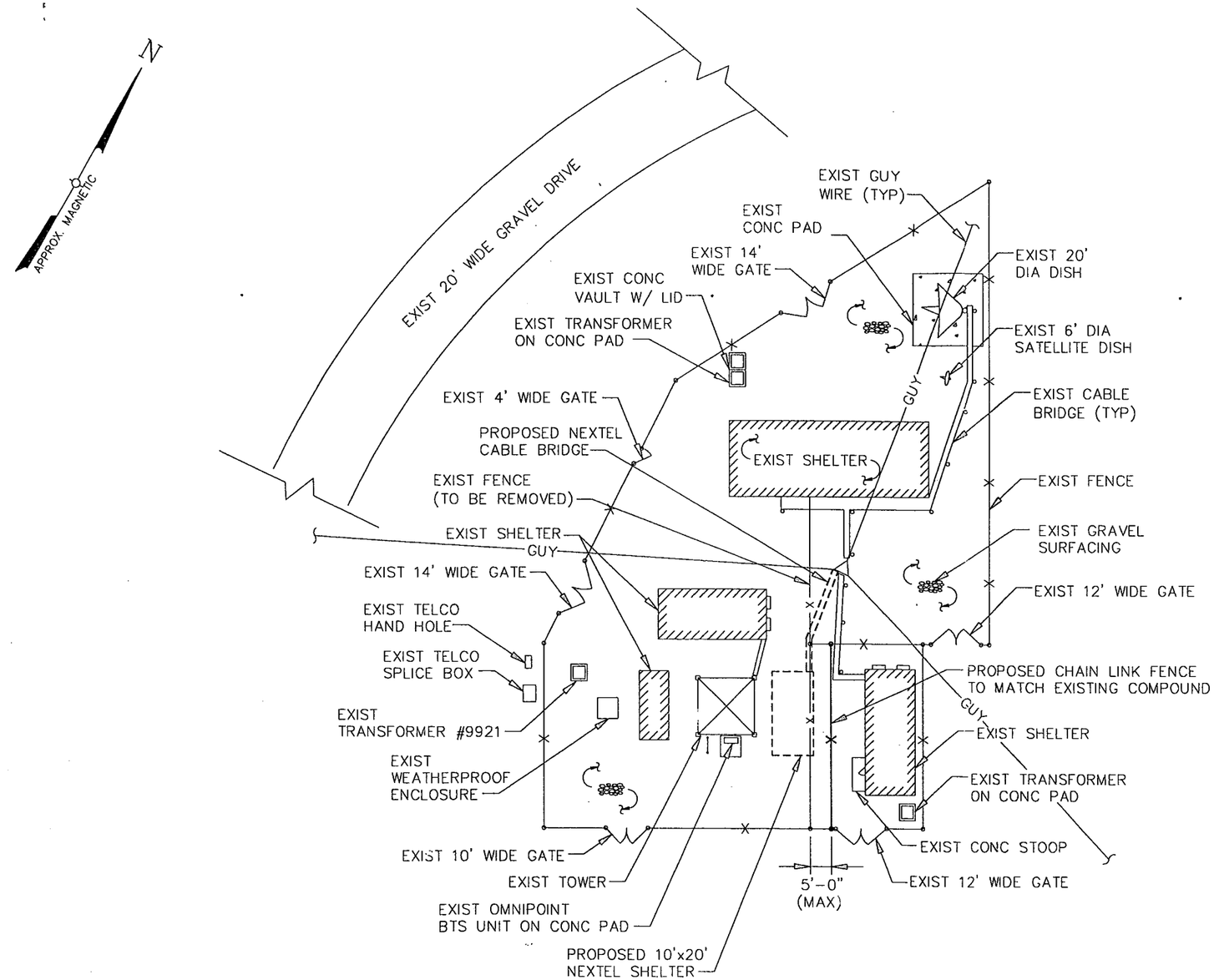
① 6' DISH W/ RADOME (CSP)	⑪ 3' PANEL	㉑ YAGI	㉛ 13' WHIP (WHUS)
② 6' DISH W/ RADOME (CSP)	⑫ 22' WHIP (PAG)	㉒ 11' WHIP (IBM)	
③ 6' DISH W/ RADOME (CSP)	⑬ 13' WHIP (AIR)	㉓ DIPOLE ARRAY (CPR)	
④ 13' WHIP (CSP)	⑭ 13' WHIP (PAG)	㉔ YAGI (CPR)	
⑤ 13' WHIP (CSP)	⑮ 13' WHIP (IBM)	㉕ DIPOLE ARRAY (WHUS)	
⑥ 13' WHIP (CSP)	⑯ 13' WHIP (PAG)	㉖ YAGI (WHUS)	
⑦ 13' WHIP (CSP)	⑰ 13' WHIP (PAG)	㉗ DIPOLE ARRAY (WHUS)	
⑧ 3' PANEL	⑱ 13' WHIP (PAG)	㉘ 6' WHIP (WHUS)	
⑨ 3' PANEL	⑲ 8' WHIP (MMP)	㉙ 9' WHIP (HAM)	
⑩ 3' PANEL	⑳ 8' WHIP (MMP)	㉚ 9' WHIP (HAM)	

TECTONIC ENGINEERING CONSULTANTS P.C.
4 WEST MAIN STREET, SUITE 401
NORTHBOROUGH, MA 01532
(508) 393-7411

1	4/24/00
0	9/10/99
Δ	8/11/99

NEXTEL
CT-931
STORRES WEST
UNIVERSITY OF CONNECTICUT
MANSFIELD, CT 06268

ISSUED BY:	W.O. 1170.C931	8/11/99	LEASE EXHIBIT L-2



LEGEND

- EXIST FENCE
- PROPOSED FENCE
- EXIST FENCE (TO BE REMOVED)
- EXIST SHELTER
- GUY — EXIST GUY WIRE

1 / L-1 PARTIAL SITE PLAN

SCALE: 1" = 30'

30' 0 15' 30' 60'

TECTONIC ENGINEERING CONSULTANTS P.C. 4 WEST MAIN STREET, SUITE 401 NORTHBOROUGH, MA 01532 (508) 393-7411	1	4/24/00	NEXTEL CT-931 STORRES WEST UNIVERSITY OF CONNECTICUT MANSFIELD, CT 06268
	0	9/10/99	
	Δ	8/11/99	
ISSUED BY:	W.O. 1170.C931	8/11/99	LEASE EXHIBIT L-1