

EM-NEXTEL-018-020510  
39 Carmen Hill Road  
Brookfield 5/16/02





# 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](mailto:siting.council@po.state.ct.us)

Web Site: [www.state.ct.us/csc/index.htm](http://www.state.ct.us/csc/index.htm)

May 13, 2002

Honorable Martin J. Foncello, Jr.  
First Selectman  
Town of Brookfield  
Brookfield Municipal Center  
Pocono Road  
P. O. Box 5106  
Brookfield, CT 06804-5106

RE: **EM-NEXTEL-018-020510** - Nextel Communications, Inc. notice of intent to modify an existing telecommunications facility located at 39 Carmen Hill Road, Brookfield, Connecticut.

Dear Mr. Foncello:

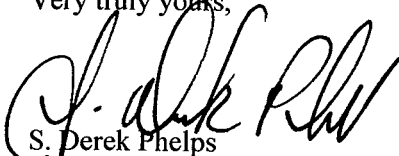
The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for May 21, 2002, at 1:30 p.m. in Hearing Room Two, 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,

  
S. Derek Phelps  
Executive Director

SDP/dsj

Enclosure: Notice of Intent

c: Clare Ann Walsh, Land Use Enforcement Officer, Town of Brookfield  
Heather Paton, Land Use Office, Town of Brookfield



May 8, 2002

RECEIVED

MAY 10 2002

CONNECTICUT  
SITING COUNCIL

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

Dear Chairman Gelston:

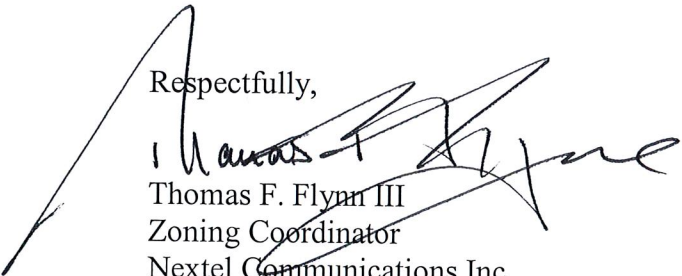
Please find enclosed and respectfully submitted, a request from Nextel Communications Inc. ("Nextel") to Modify an Exempt Tower and Associated Equipment at an existing telecommunications facility located on 39 Carmen Hill Road, Brookfield, Connecticut. This facility is located on property owned by Danbury Broadcasting Inc. The tower is owned by Danbury Broadcasting Inc. and is currently used by Nextel Communications to provide wireless coverage.

Nextel wishes to share use of this facility in order to improve/expand wireless its system coverage and to avoid the possibility of constructing another telecommunications tower in the general area. Nextel currently uses the tower and wishes to replace its omni-directional antennas with panel antennas.

The attached information details how the addition of the proposed antennas and associated equipment at the tower site meet 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.

Thank you for your consideration in this matter.

Respectfully,



Thomas F. Flynn III  
Zoning Coordinator  
Nextel Communications Inc.

Enclosure

Cc: First Selectman Martin J. Foncello Jr.

**EXEMPT MODIFICATION  
39 CARMEN HILLROAD  
BROOKFIELD, 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") hereby notifies the Connecticut Siting Council of its intent to modify an existing telecommunications facility located at 39 Carmen Hill Road, Brookfield, Connecticut.

**BACKGROUND**

This existing facility, located at 39 Carmen Hill Road, Brookfield, Connecticut consists of a 455-foot tall, guyed lattice tower that is owned by Danbury Broadcasting Inc. and is located on property also owned by Danbury Broadcasting Inc. The tower is currently used by Nextel Communications to provide service coverage to this section of Brookfield, particularly Route 7, I-84 and Candlewood Lake.

Nextel desires to share use of this facility and thus avoid the potential need to construct an additional tower in the general area.

**DISCUSSION**

Nextel plans to install twelve (12) panel antennas center-lined at the 257-foot level of the tower (see Attachment A) and place a 10-foot by 20-foot equipment shelter inside the southeastern corner of the existing compound (see Attachment B). The tower has been structurally analyzed and found to be fully capable of supporting Nextel's antennas and its tower mounted hardware (Attachment C).

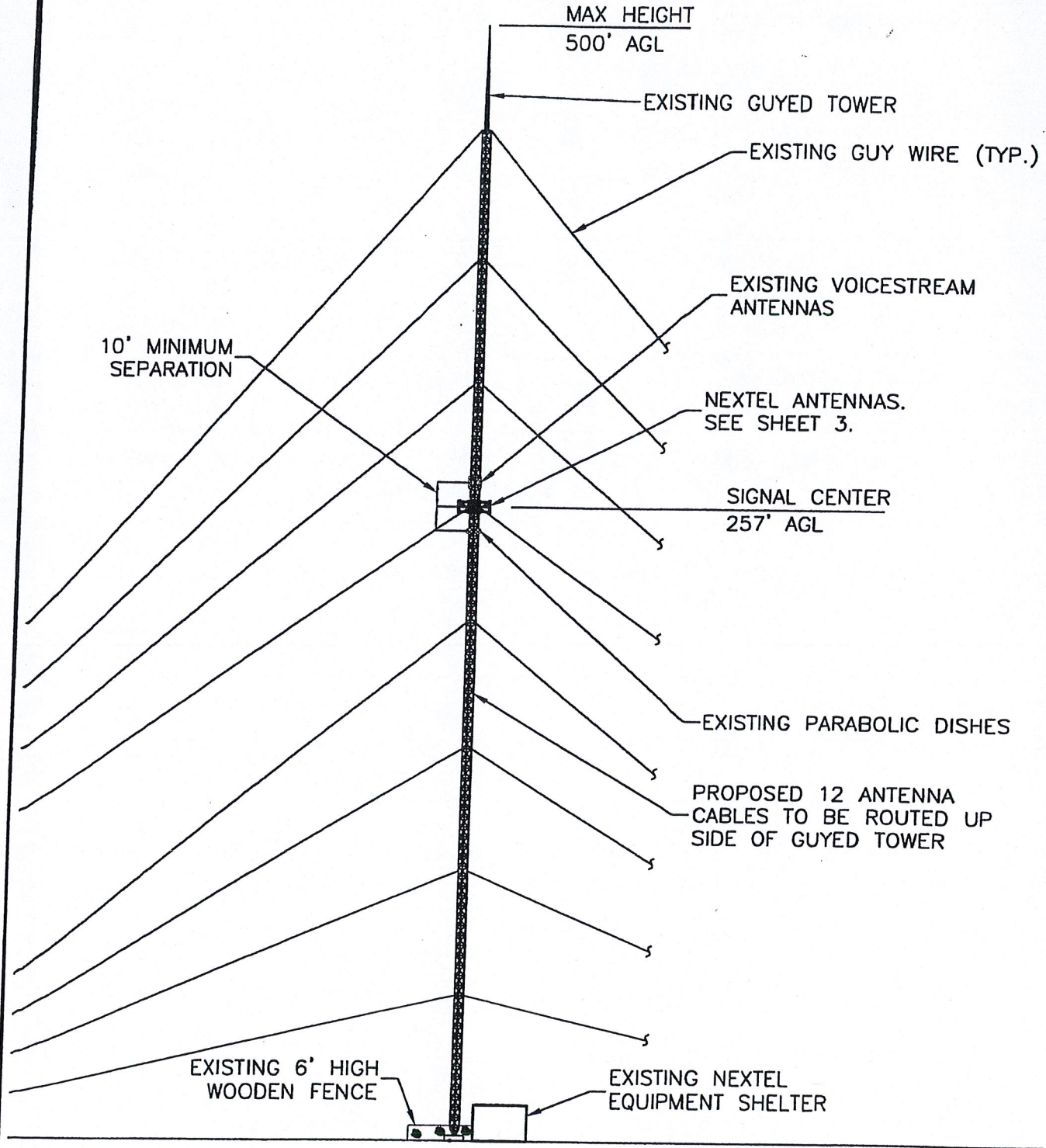
**POWER DENSITY INFORMATION**

The operation of Nextel's antennas will not increase the total radio frequency electromagnetic power density level to a level at (or even near) existing State and Federal Standards. "Worst case" calculations, measured to a point at the base of the tower, show the combined power levels for the existing AT&T and proposed Nextel antennas reach just .105793 % of the State/Federal standard in an uncontrolled access environment. (See Attachment D).

## **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 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 would not have a substantial adverse environmental effect.

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



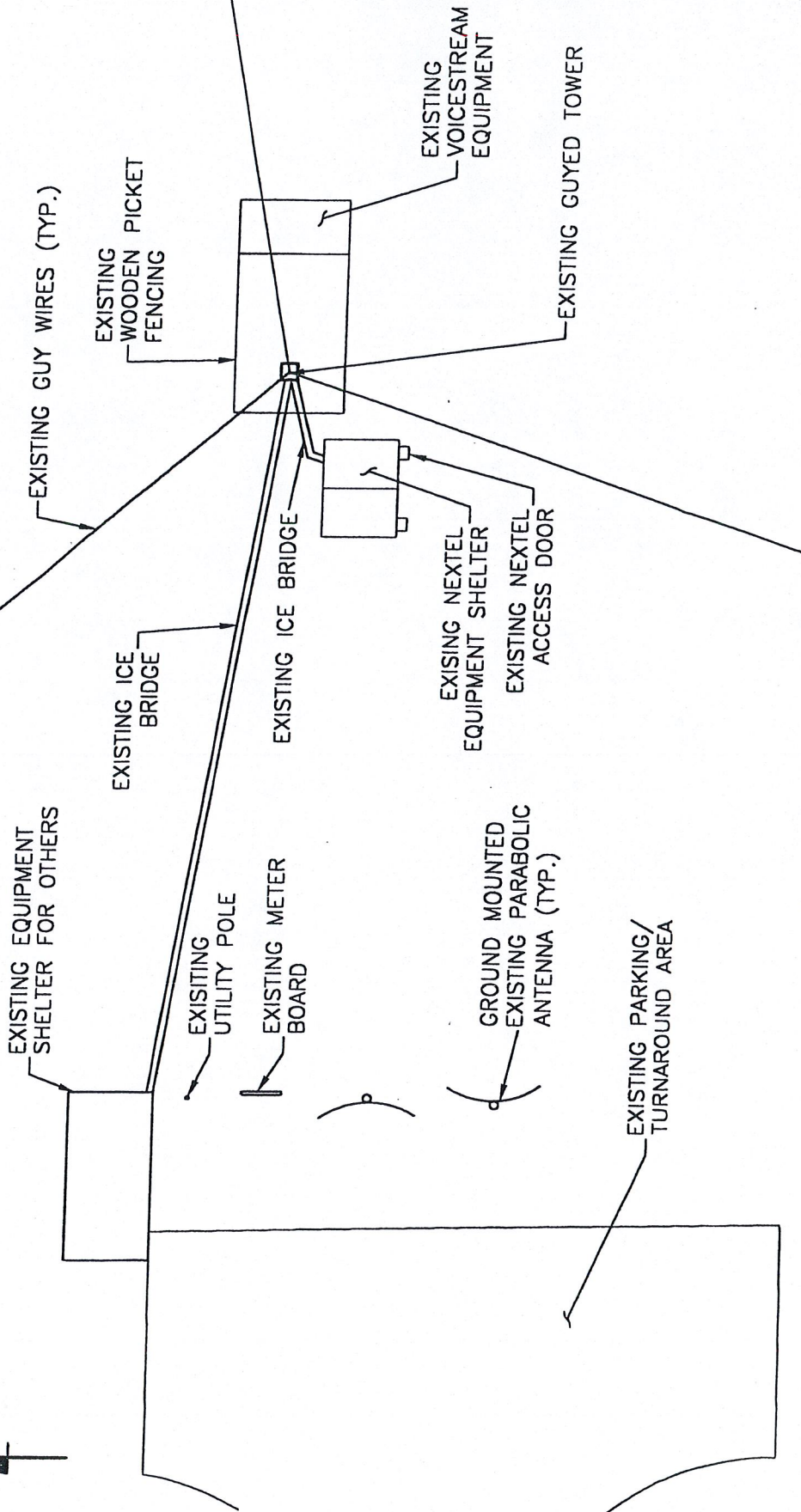
WEST ELEVATION

SITE CT-0068  
 BROOKFIELD  
 CARMEN HILL ROAD  
 BROOKFIELD, CT

**Goodkind & O'Dea, Inc.**  
 Consulting Engineers and Planners  
 A **Dewberry & Davis** Company  
 15 E. 28TH STREET, NEW YORK, NY 10010

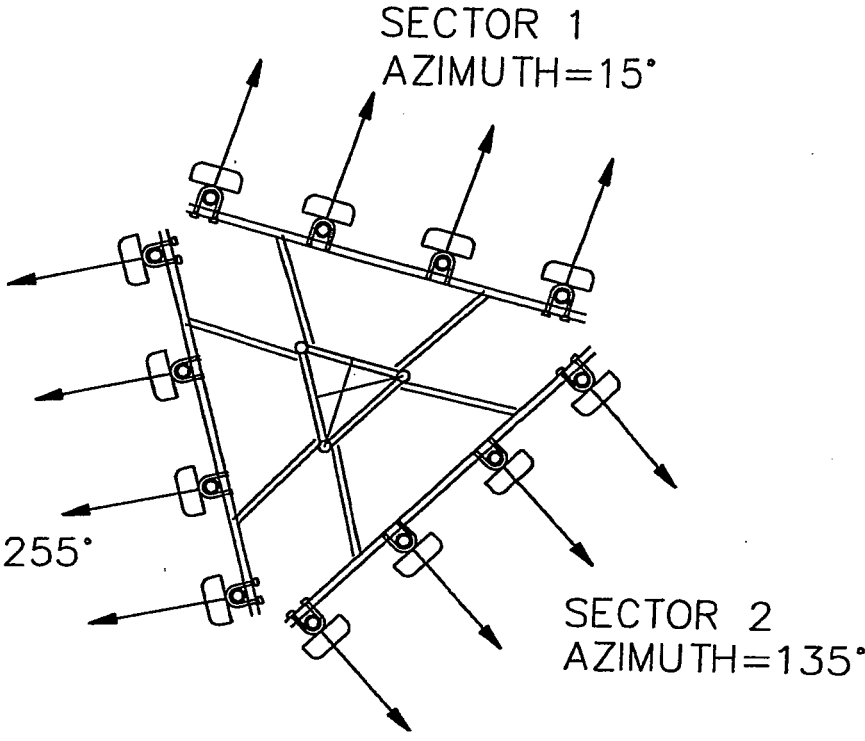
**NEXTEL**  
 ONE NORTH BROADWAY  
 WHITE PLAINS, NEW YORK 10601

NO.	DATE	REVISION
1	02/20/01	PRELIMINARY SUBMISSION
DRAWN BY:	DESIGNED BY:	CHECKED BY:
FJD	FJD	HB
DATE:	MARCH 12, 2001	SCALE: 1"=60'
PROJECT NO.:	2514-04	DRAWING NO.:
		2 OF 3



PLAN VIEW

SITE NO.: CT-0068		BROOKFIELD CARMEN HILL ROAD BROOKFIELD, CT	
Goodkind & O'Dea, Inc. Consulting Engineers and Planners A <i>Deaneberg &amp; Deane</i> Company 59 ELIJAH STREET, SUITE 101, NEW HAVEN, CT 06510-2047		NEXTEL ONE NORTH BROADWAY WHITE PLAINS, NEW YORK 10601	
NO.	DATE	REVISION	PRELIMINARY SUBMISSION
1	02/20/03	FJD	
DRAWN BY:	DATE:	CHECKED BY:	SCALE:
FJD	MARCH 12, 2001	FJD	1" = 50'
PRODUCT NO.:	PROJECT NO.:	DRAWING NO.:	
	2514-04		1 OF 3



TOP VIEW

NTS

WEST ELEVATION

SITE CT-0068  
 BROOKFIELD  
 CARMEN HILL ROAD  
 BROOKFIELD, CT

NO.	DATE	REVISION
1	02/20/01	PRELIMINARY SUBMISSION
DRAWN BY:	FJD	CHECKED BY: HB
DATE:	MARCH 12, 2001	SCALE: AS SHOWN
PROJECT NO.:	2514-04	DRAWING NO.: 3 OF 3

**Goodkind & O'Dea, Inc.**  
 Consulting Engineers and Planners  
 A **Dewberry & Davis** Company  
 15 E. 28TH STREET, NEW YORK, NY 10010

**NEXTEL**  
 ONE NORTH BROADWAY  
 WHITE PLAINS, NEW YORK 10601



# **TOWER TECHNOLOGY, INC.**

P.O. BOX 11538  
KANSAS CITY, MO. 64138  
PHONE (816) 358-0003  
FAX (816) 358-3397

April 30, 2002

**Mr. Dick Peaston**  
Nextel Communications  
100 Corporate Place  
Rocky Hill, CT 06067

Telephone: (203) 223-1450  
Facsimile: (860) 513-5444

Subject: Structural reanalysis of the 455 ft. Stainless guyed tower located at Brookfield, CT for Nextel

Dear Dick:

Tower Technology, Inc. analyzed the above subject tower on June 11, 2001 per the TIA/EIA-222-F specification at 85 mph with and without ½" of radial ice (EIA allows a 25 percent reduction in the wind thrust when considering ice as a concurrent load). A copy of the report follows. The analysis considered the loading stated on the title sheet (including the proposed Nextel antennas at the 257 ft. level). Some structural members were found to be overstressed. On page 2 of the report, recommendations are specified to eliminate the overstressing.

For the loading shown on the title sheet, the tower will meet the TIA/EIA-222-F specification if the recommendations are completed as specified. The analysis assumes that all tower steel is in its original state.

If you have any questions, please let us know.

Sincerely,  
TOWER TECHNOLOGY, INC.



George E. Kouba, P.E.  
Sr. Project Engineer



4/30/02

\*\*\*\*\*  
 \*\* TOWER TECHNOLOGY, INC. \*\*  
 \*\* P.O. BOX 11538 \*\*  
 \*\* KANSAS CITY, MO 64138 \*\*  
 \*\* TEL. (816) 358-0003 \*\*  
 \*\*\*\*\*

TOWER ANALYSIS

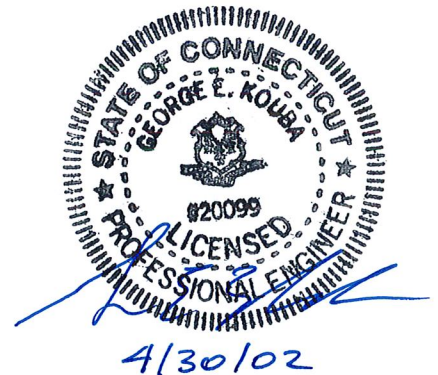
DATE: JUNE 11, 2001  
 FOR: HERBST-MUSCIANO  
 SITE: BROOKFIELD, CT  
 HEIGHT: 455 FT.  
 TOWER TYPE: STAINLESS GUYED TOWER  
 STRUCT. WIND: TIA/EIA-222-F @ 85 MPH WITH & W/O 1/2" ICE

EQUIPMENT DATA

<u>DIAMETER</u>	<u>TYPE</u>	<u>CENTERLINE</u>	<u>AZIMUTH</u>	<u>WAVEGUIDE</u>
N/A	FML2EVASP	POLE ON TOP	N/A	3 1/8" HELIAX
N/A	(2) EMPTY SIDE ARM	440 FT.	N/A	N/A
N/A	2' X 6' PARAFLECTOR	338 FT.	UNKNOWN	7/8" COAX
N/A	OMNI - SIDE ARM	284 FT.	N/A	7/8" COAX
N/A	(3) FR-90-16-02DP	275 FT.	SECTORED	(6) 1 5/8" COAX
N/A	* (12) DB844	257 FT.	N/A	(12) 1 5/8" COAX **
8 FT.	GRID	245 FT.	UNKNOWN	7/8" COAX
8 FT.	GRID	240 FT.	UNKNOWN	7/8" COAX

\* - PROPOSED ANTENNAS ON PIROD A-FRAME MOUNTS

\*\* - (15) RUNS APPROVED ON OCTOBER 11, 2001 (MUST BE GROUPED INTO TWO BUNDLES AND INSTALLED ON THE INSIDE OF TWO TOWER LEGS)



Tower Technology, Inc. Analysis Report  
For: Herbst-Musciano  
Site: Brookfield, CT  
June 13, 2001

Commentary

This is an existing 455 ft. Stainless guyed tower with a 40 ft. pole on top. The mast structure is three sided with guy wires supporting it in three directions separated by 120 degrees. The mast consists of solid round legs (50 KSI) with single angle diagonals and horizontals (36 KSI) in a Z-braced configuration. The bracing bay heights are 48.0 inches. The face width of the tower is 48 inches from centerline to centerline of the legs.

The existing tower member information was obtained from a copy of Stainless's Erection Drawings dated 4/28/95.

This analysis assumes that the tower steel is in its original state with no deterioration due to weather or field modification.

A "K" factor of 1.0 will be used to calculate the allowable load for the leg members as specified by EIA.

Wind Loading

The tower was analyzed utilizing the current Electronic Industries Association's (EIA's) specification TIA/EIA-222-F with a structural basic wind speed of 85 mph at the 33 ft. level with and without 1/2" of radial ice (EIA allows a 25 percent reduction in the thrust load when ice is considered as a concurrent load). This analysis assumes the wind blowing from three different directions (i.e., apex wind, face wind, and wind parallel to a face).

Tower Loading

The existing and proposed antennas were obtained from Herbst-Musciano. The analyzed antenna and waveguide configuration is restated on the title sheet of this analysis. Six of the twelve new runs of 1 5/8" coax were assumed shaded from the wind.

Tower Analysis and Results

**CASE #1**

The tower was analyzed as it exists (assumed guy wire at 105 ft. to be original 7/16" EHS) with the proposed antenna loading. Refer to Sketch #1. The results indicate the following structural member overstressing.

<u>Member</u>	<u>Level (ft.)</u>	<u>Percent Overstressed</u>
Diagonal	49 - 57	28.0
Diagonal	105 - 109	16.0



<u>Member</u>	<u>Level (ft.)</u>	<u>Percent Overstressed</u>
7/16" EHS guy wire	49	12.5
7/16" EHS guy wire	105	28.5
1/2" EHS guy wire	157	16.5

**CASE #2**

The tower was analyzed as in Case #1 except the existing 7/16" EHS guy wires at the 49 ft. level were replaced with new 1/2" EHS guy wires, the existing 7/16" EHS guy wires at the 105 ft. level were replaced with new 9/16" EHS guy wires, and the existing 1/2" EHS guy wires at the 157 ft. level were replaced with new 9/16" EHS guy wires. The results indicate the diagonals from 105' to 113' are overstressed 26 percent.

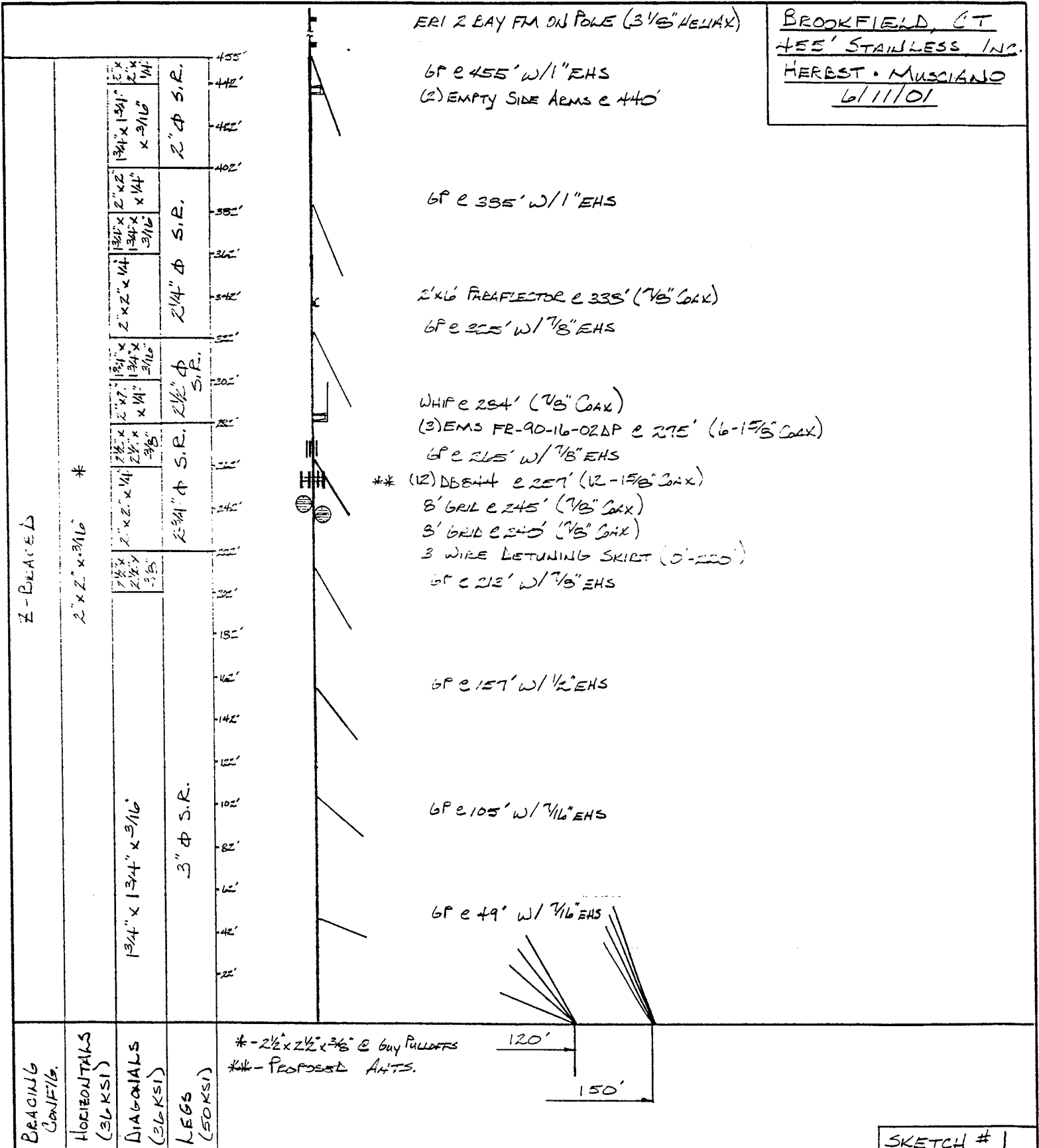
The foundations were analyzed assuming EIA "normal" soil. The foundations are adequate for the proposed loading.

Recommendations

To meet the TIA/EIA-222-F specification with a basic wind speed of 85 mph with and without 1/2" of radial ice for the proposed antenna loading, the following is required.

1. Replace the existing 7/16" EHS guy wires at the 49 ft. level with new 1/2" EHS guy wires and guy hardware.
2. Replace the existing 7/16" EHS guy wires at the 105 ft. level with new 9/16" EHS guy wires and guy hardware.
3. Replace the existing 1/2" EHS guy wires at the 157 ft. level with new 9/16" EHS guy wires and guy hardware.
4. Replace the existing 1 3/4" x 1 3/4" x 3/16" diagonals from 105' to 113' with new 2" x 2" x 1/4" diagonals. Two bays per face - a total of six bays. The steel must be 36 KSI and hot dip galvanized.
5. Six of the twelve new runs of 1 5/8" coax must be shaded from the wind.





ERI 2 BAY FM ON POLE (3 1/8" HELIX)

BROOKFIELD, CT  
 455' STAINLESS INC.  
 HERBST • MUSCIANO  
 6/11/01

GP @ 455' w/ 1" EHS  
 (2) EMPTY SIDE ARMS @ 440'

GP @ 335' w/ 1" EHS

2' x 6' PARAFLECTOR @ 335' (7/8" COAX)  
 GP @ 225' w/ 7/8" EHS

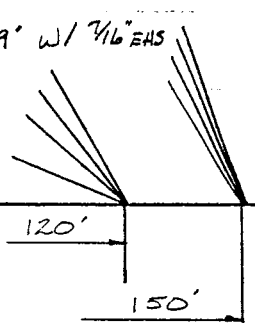
WHIP @ 254' (7/8" COAX)  
 (3) EMS FR-90-16-02AP @ 275' (6-15/8" COAX)

GP @ 265' w/ 7/8" EHS  
 \*\* (12) DBENT @ 257' (12-15/8" COAX)  
 8' GRID @ 245' (7/8" COAX)  
 5' GRID @ 240' (7/8" COAX)  
 3 WIRE DETUNING SKIRT (0'-220')  
 GP @ 213' w/ 7/8" EHS

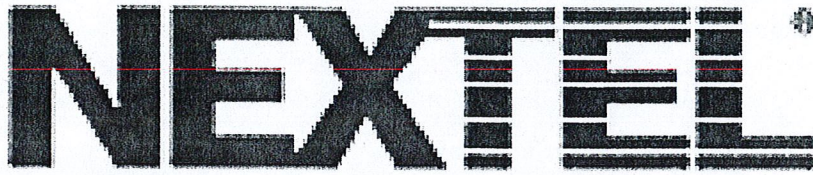
GP @ 157' w/ 1/2" EHS

GP @ 105' w/ 7/16" EHS

GP @ 49' w/ 7/16" EHS



SKETCH # 1



**Report and Analysis  
for RF Compliance  
with FCC Regulations**

**CT0068  
39 Carmen Hill Road  
Brookfield, CT 06804**

Prepared by:  
Yvan Joseph  
March 19, 2002

## INTRODUCTION

At the request of the Town of Brookfield Planning and Zoning Commission, Nextel Communications conducted an analysis for potential unsafe radio frequency (RF) exposure at Nextel's Tower site CT0068 / Brookfield, located at 39 Carmen Hill Road Brookfield, CT. The request was made due to a proposed antenna modification. The analysis demonstrates that the Nextel contribution to the RF environment is minimal and is in accordance with the Federal Communications Commission (FCC) guidelines as required by the Telecommunications Act of 1996.

This analysis is based on the current FCC guidelines with respect to maximum permitted exposure (MPE) levels. The FCC's RF exposure guidelines are incorporated in Section 1.1301 *et seq* of its rules and regulations. Those guidelines specify maximum permissible exposure levels for both occupational and general public exposure.

The FCC MPE limits represent the consensus of federal agencies and independent experts responsible for RF safety matters. Those agencies include the National Council on Radiation Protection and Measurements (NCRP), the Occupational Health and Safety Administration (OSHA), the National Institute for Occupational Safety and Health (NIOSH), the American National Standards Institute (ANSI), The Environmental Protection Agency (EPA), and the Food and Drug Administration (FDA). In formulating its guidelines, the FCC also considered input from the public and technical community - notably the Institute of Electrical and Electronic Engineers (IEEE).

The FCC makes it clear that the MPE limits apply only in accessible areas. Fundamentally, in areas that are considered normally inaccessible, the exposure issue is moot.

The areas surrounding the base of the tower were reviewed because they are accessible to workers providing maintenance and repair services. The RF exposure measurements were measured using the Wandel & Goltermann meter with Type 25 probe calibrated to display the percentage of the FCC uncontrolled occupational levels. Both the probe and meter are capable of broadband RF measurements covering a range of 300kHz to 40GHz. The measurement equipment automatically registers all RF levels within its frequency range and displays them as a percentage of the FCC's occupational/controlled limits.

Theoretical calculations and analysis are based upon the FCC Office of Engineering & Technology (OET) Bulletin 65. Worst case assumptions were used to ensure safe-side estimates. The actual values will be significantly lower than calculated analytical values.

For potential exposure from multiple systems, the respective percentages of the MPE limits are added, and total percentage compared to 100 percent of the limit. If results are less than 100 percent, the total exposure is in compliance. If it is over 100 percent, exposure mitigation measures are necessary to achieve compliance.

## SITE INFORMATION

### Site Data

Company Name	Nextel Communications
Contact Name	Dick Peaston
Contact Phone	203-223-1450
Site ID	CT0068
Site Name	Brookfield
Site Address	39 Carmen Hill Road Brookfield, CT 06804
Latitude	41 29' 35"
Longitude	73 25' 42"
Site Type	Sectorized
Tower / Building Height	Guy Tower
Site Status	Active

### Technical Data

Radio Service Type	ESMR
Number of Sectors (if omni-directional #=1)	3
Transmit Frequency	851Mhz - 866Mhz
Number of Transmitters per sector	8
Number of Transmit Antennas per sector	-
Number of Receive Antennas per sector	-
Number of Transmit/Receive Antennas per sector (duplexed)	4
Max. ERP per Transmitter	100
Antenna Manufacturer	Decibel
Antenna Model	DB844H90(E)-XY



Antenna Gain (specify dBd or dBi)	9.5dBd
Antenna Type (directional or omni-directional)	Directional
Antenna Downtilt	0
AGL	257
Above Roof Height	n/a
Other Relevant Site Detail	-

# RF EXPOSURE SURVEY

DATE 24-Jul-00

SITE ID CT 0068

SITE NAME BROOKFIELD

ADDRESS 39 Carmen Hill Rd.  
Brookfield, CT

- SITE MAP, FLOOR PLANS, EQUIPMENT LOCATION
- PHOTOGRAPHS (Photos were taken)
- ROOFTOP/ANTENNA LOCATION N/A
- ENTRANCE TO ROOFTOP/SITE
- SURROUNDING AREA
- HAZARDOUS AREAS (None)
- EQUIPMENT ROOMS
- METER IN USE
- OPERATING PARAMETERS
- COMPLETE MPE DATA FOR ALL EQUIPMENT
- INDUCED AND/OR CONTACT CURRENT HAZARDS (FROM EMITTERS<100MHz)
- DEFINE POTENTIALLY HAZARDOUS AREAS (None)
- PREVIOUS SURVEY RESULTS (1st One)

NAMES OF INDIVIDUALS WHO HAVE ACCESS TO RF ANTENNA/TRANSMITTER AREA

## SURVEY INSTRUMENTATION

- MODEL/SERIAL NUMBER EMR - 300 / C - 0004 - V-0052
- CALIBRATION DATE 02-Feb-00

COMMENT AM Broadcast tower.

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STRUCTURES: List any large structures such as buildings fences and towers etc., within the vicinity of the survey site. Choose all options from the following list that apply to the site.

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None

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**LARGE PRIMARY TOWER**

- LARGE BROADCAST TOWER  
TRANSMITTERS MOUNTED ON TOWER  
at heights of 500 ft.
- ELEVATOR  
REST AREAS (what level)  
SIDE MOUNTED BROADCAST ANTENNAS  
at heights of \_\_\_\_\_

GUYED COMMUNICATIONS TOWER

- OTHER PRIMARY TOWER:  
MONOPOLE  
SELF\_SUPPORTED TOWER  
x  GUY  
ROOFTOP  
WATER TANK

LIST TOWER HEIGHT IN F 500 ft.

LIST TOWER FACE IN INCHES 4 ft.

TRANSMITTING (TX) ROOM DIMENSIO 10 x 20

NUMBER OF TRANSMITTER ROOMS. 1

Width 20  
Length 20  
Height \_\_\_\_\_

ROOM CONSTRUCTION

- Wood  
 Cinder - Prefab  
 Concrete  
 Metal  
 Other (describe)

- Tower Mounted Room  
 Outside all-weather cabinet      OCI  
at tower base

SITE CHARACTERISTICS

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Guy

---

Broadcast

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Omnis

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LIST ANY AREAS NORMALLY OCCUPIED BY PEOPLE SUCH AS WORK AREAS, WALKWAYS, ETC:

**Resident home 100 ft. away**

LIST ANY BARRIERS, FENCES, DOORS, INTERLOCKS, SIGNS, AND AUDIBLE OR VISUAL ALARMS.

**Fenced (small wood).**

**Signs posted.**

LIST ALL EXTERNAL AREAS ADJACENT TO SURVEY SITE, INCLUDING PARKING LOTS, FUEL STORAGE, RESIDENTIAL AREAS, OR ANY OTHER "UNCONTROLLED AREAS" THAT MAY RECEIVE LOWER, BUT MEASURABLE EMISSIONS.

**None**

OBTAIN BEAM ELEVATION ANGLES FOR ALL DIRECTIONAL EMITTERS SUCH AS PARABOLIC ANTENNAS, IF THERE ARE NO MECHANICAL MEANS TO STOP THE BEAM FROM ILLUMINATING PERSONS IN THE AREA, THIS INFORMATION IS USED TO WORST CASE SCENARIO.

**See Colocator Sheet for add. Info**

# FIELD MEASUREMENT RESULTS

WANDEL&GOLTERMANN EMR-300 S-0063

MEM#	VALUE	UNIT	RESULT	AXIS	TIME	DATE	CAL	PROBE	Duty Factor Adjusted	STATUS
1	0 %		ACT	EFF	9:36:00	24-07-00	1	TYPE 25 C-0004		0 SAFE
2	0 %		ACT	EFF	9:36:01	24-07-00	1	TYPE 25 C-0004		0 SAFE
3	0 %		ACT	EFF	9:36:02	24-07-00	1	TYPE 25 C-0004		0 SAFE
4	0 %		ACT	EFF	9:36:03	24-07-00	1	TYPE 25 C-0004		0 SAFE
5	0 %		ACT	EFF	9:36:04	24-07-00	1	TYPE 25 C-0004		0 SAFE
6	0 %		ACT	EFF	9:36:04	24-07-00	1	TYPE 25 C-0004		0 SAFE
7	0.05 %		ACT	EFF	9:36:05	24-07-00	1	TYPE 25 C-0004	0.070346541	SAFE
8	0.01 %		ACT	EFF	9:36:06	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
9	0 %		ACT	EFF	9:36:07	24-07-00	1	TYPE 25 C-0004		0 SAFE
10	0.01 %		ACT	EFF	9:36:08	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
11	0 %		ACT	EFF	9:36:08	24-07-00	1	TYPE 25 C-0004		0 SAFE
12	0 %		ACT	EFF	9:36:09	24-07-00	1	TYPE 25 C-0004		0 SAFE
13	0 %		ACT	EFF	9:36:10	24-07-00	1	TYPE 25 C-0004		0 SAFE
14	0 %		ACT	EFF	9:38:04	24-07-00	1	TYPE 25 C-0004		0 SAFE
15	0 %		ACT	EFF	9:38:04	24-07-00	1	TYPE 25 C-0004		0 SAFE
16	0.04 %		ACT	EFF	9:38:05	24-07-00	1	TYPE 25 C-0004	0.056277233	SAFE
17	0 %		ACT	EFF	9:38:06	24-07-00	1	TYPE 25 C-0004		0 SAFE
18	0.02 %		ACT	EFF	9:38:07	24-07-00	1	TYPE 25 C-0004	0.028138616	SAFE
19	0 %		ACT	EFF	9:38:08	24-07-00	1	TYPE 25 C-0004		0 SAFE
20	0.01 %		ACT	EFF	9:38:09	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
21	0.05 %		ACT	EFF	9:38:09	24-07-00	1	TYPE 25 C-0004	0.070346541	SAFE
22	0.01 %		ACT	EFF	9:38:10	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
23	0.01 %		ACT	EFF	9:38:11	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
24	0.07 %		ACT	EFF	9:38:12	24-07-00	1	TYPE 25 C-0004	0.098485158	SAFE
25	0.07 %		ACT	EFF	9:38:13	24-07-00	1	TYPE 25 C-0004	0.098485158	SAFE
26	0.01 %		ACT	EFF	9:38:13	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
27	0.04 %		ACT	EFF	9:38:14	24-07-00	1	TYPE 25 C-0004	0.056277233	SAFE
28	0.1 %		ACT	EFF	9:38:15	24-07-00	1	TYPE 25 C-0004	0.140693082	SAFE
29	0.01 %		ACT	EFF	9:38:16	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
30	0.2 %		ACT	EFF	9:38:17	24-07-00	1	TYPE 25 C-0004	0.281386165	SAFE
31	0 %		ACT	EFF	9:38:17	24-07-00	1	TYPE 25 C-0004		0 SAFE
32	0.01 %		ACT	EFF	9:38:18	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
33	0.04 %		ACT	EFF	9:38:19	24-07-00	1	TYPE 25 C-0004	0.056277233	SAFE
34	0.06 %		ACT	EFF	9:38:20	24-07-00	1	TYPE 25 C-0004	0.084415849	SAFE
35	0 %		ACT	EFF	9:38:20	24-07-00	1	TYPE 25 C-0004		0 SAFE
36	0.05 %		ACT	EFF	9:38:21	24-07-00	1	TYPE 25 C-0004	0.070346541	SAFE
37	0.04 %		ACT	EFF	9:38:22	24-07-00	1	TYPE 25 C-0004	0.056277233	SAFE
38	0.13 %		ACT	EFF	9:38:23	24-07-00	1	TYPE 25 C-0004	0.182901007	SAFE
39	0.07 %		ACT	EFF	9:38:24	24-07-00	1	TYPE 25 C-0004	0.098485158	SAFE
40	0.05 %		ACT	EFF	9:38:24	24-07-00	1	TYPE 25 C-0004	0.070346541	SAFE
41	0.07 %		ACT	EFF	9:38:25	24-07-00	1	TYPE 25 C-0004	0.098485158	SAFE
42	0.03 %		ACT	EFF	9:38:26	24-07-00	1	TYPE 25 C-0004	0.042207925	SAFE
43	0.05 %		ACT	EFF	9:38:27	24-07-00	1	TYPE 25 C-0004	0.070346541	SAFE
44	0.07 %		ACT	EFF	9:38:28	24-07-00	1	TYPE 25 C-0004	0.098485158	SAFE
45	0.02 %		ACT	EFF	9:38:28	24-07-00	1	TYPE 25 C-0004	0.028138616	SAFE
46	0.08 %		ACT	EFF	9:38:29	24-07-00	1	TYPE 25 C-0004	0.112554466	SAFE
47	0 %		ACT	EFF	9:38:30	24-07-00	1	TYPE 25 C-0004		0 SAFE
48	0 %		ACT	EFF	9:38:31	24-07-00	1	TYPE 25 C-0004		0 SAFE
49	0.02 %		ACT	EFF	9:38:32	24-07-00	1	TYPE 25 C-0004	0.028138616	SAFE
50	0.01 %		ACT	EFF	9:38:32	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE

MEM#	VALUE	UNIT	RESULT	AXIS	TIME	DATE	CAL	PROBE	Duty Factor	Adjusted	STATUS
51	0.1	%	ACT	EFF	9:38:33	24-07-00	1	TYPE 25 C-0004	0.140693082		SAFE
52	0	%	ACT	EFF	9:38:34	24-07-00	1	TYPE 25 C-0004		0	SAFE
53	0.13	%	ACT	EFF	9:38:35	24-07-00	1	TYPE 25 C-0004	0.182901007		SAFE
54	0.16	%	ACT	EFF	9:38:36	24-07-00	1	TYPE 25 C-0004	0.225108932		SAFE
55	0.17	%	ACT	EFF	9:38:36	24-07-00	1	TYPE 25 C-0004	0.23917824		SAFE
56	0.02	%	ACT	EFF	9:38:37	24-07-00	1	TYPE 25 C-0004	0.028138616		SAFE
57	0.15	%	ACT	EFF	9:38:38	24-07-00	1	TYPE 25 C-0004	0.211039623		SAFE
58	0.04	%	ACT	EFF	9:38:39	24-07-00	1	TYPE 25 C-0004	0.056277233		SAFE
59	0.03	%	ACT	EFF	9:38:40	24-07-00	1	TYPE 25 C-0004	0.042207925		SAFE
60	0.02	%	ACT	EFF	9:38:40	24-07-00	1	TYPE 25 C-0004	0.028138616		SAFE
61	0.05	%	ACT	EFF	9:38:41	24-07-00	1	TYPE 25 C-0004	0.070346541		SAFE
62	0.12	%	ACT	EFF	9:38:42	24-07-00	1	TYPE 25 C-0004	0.168831699		SAFE
63	0.26	%	ACT	EFF	9:38:43	24-07-00	1	TYPE 25 C-0004	0.365802014		SAFE
64	0.09	%	ACT	EFF	9:38:44	24-07-00	1	TYPE 25 C-0004	0.126623774		SAFE
65	0.01	%	ACT	EFF	9:38:44	24-07-00	1	TYPE 25 C-0004	0.014069308		SAFE
66	0.04	%	ACT	EFF	9:38:45	24-07-00	1	TYPE 25 C-0004	0.056277233		SAFE
67	0.06	%	ACT	EFF	9:38:46	24-07-00	1	TYPE 25 C-0004	0.084415849		SAFE
68	0.1	%	ACT	EFF	9:38:47	24-07-00	1	TYPE 25 C-0004	0.140693082		SAFE
69	0.05	%	ACT	EFF	9:38:48	24-07-00	1	TYPE 25 C-0004	0.070346541		SAFE
70	0.03	%	ACT	EFF	9:38:48	24-07-00	1	TYPE 25 C-0004	0.042207925		SAFE
71	0.04	%	ACT	EFF	9:38:49	24-07-00	1	TYPE 25 C-0004	0.056277233		SAFE
72	0.09	%	ACT	EFF	9:38:50	24-07-00	1	TYPE 25 C-0004	0.126623774		SAFE
73	0.12	%	ACT	EFF	9:38:51	24-07-00	1	TYPE 25 C-0004	0.168831699		SAFE
74	0.03	%	ACT	EFF	9:38:52	24-07-00	1	TYPE 25 C-0004	0.042207925		SAFE
75	0.29	%	ACT	EFF	9:38:52	24-07-00	1	TYPE 25 C-0004	0.408009939		SAFE
76	0.12	%	ACT	EFF	9:38:53	24-07-00	1	TYPE 25 C-0004	0.168831699		SAFE
77	0.04	%	ACT	EFF	9:38:54	24-07-00	1	TYPE 25 C-0004	0.056277233		SAFE
78	0.09	%	ACT	EFF	9:38:55	24-07-00	1	TYPE 25 C-0004	0.126623774		SAFE
79	0.03	%	ACT	EFF	9:38:55	24-07-00	1	TYPE 25 C-0004	0.042207925		SAFE
80	0.1	%	ACT	EFF	9:38:56	24-07-00	1	TYPE 25 C-0004	0.140693082		SAFE
81	0.03	%	ACT	EFF	9:38:57	24-07-00	1	TYPE 25 C-0004	0.042207925		SAFE
82	0.19	%	ACT	EFF	9:38:58	24-07-00	1	TYPE 25 C-0004	0.267316856		SAFE
83	0.01	%	ACT	EFF	9:38:59	24-07-00	1	TYPE 25 C-0004	0.014069308		SAFE
84	0.16	%	ACT	EFF	9:38:59	24-07-00	1	TYPE 25 C-0004	0.225108932		SAFE
85	0.03	%	ACT	EFF	9:39:00	24-07-00	1	TYPE 25 C-0004	0.042207925		SAFE
86	0.03	%	ACT	EFF	9:39:01	24-07-00	1	TYPE 25 C-0004	0.042207925		SAFE
87	0.11	%	ACT	EFF	9:39:02	24-07-00	1	TYPE 25 C-0004	0.15476239		SAFE
88	0.04	%	ACT	EFF	9:39:03	24-07-00	1	TYPE 25 C-0004	0.056277233		SAFE
89	0.18	%	ACT	EFF	9:39:04	24-07-00	1	TYPE 25 C-0004	0.253247548		SAFE
90	0.16	%	ACT	EFF	9:39:04	24-07-00	1	TYPE 25 C-0004	0.225108932		SAFE
91	0.05	%	ACT	EFF	9:39:05	24-07-00	1	TYPE 25 C-0004	0.070346541		SAFE
92	0.07	%	ACT	EFF	9:39:06	24-07-00	1	TYPE 25 C-0004	0.098485158		SAFE
93	0.02	%	ACT	EFF	9:39:07	24-07-00	1	TYPE 25 C-0004	0.028138616		SAFE
94	0.12	%	ACT	EFF	9:39:08	24-07-00	1	TYPE 25 C-0004	0.168831699		SAFE
95	0.17	%	ACT	EFF	9:39:08	24-07-00	1	TYPE 25 C-0004	0.23917824		SAFE
96	0.16	%	ACT	EFF	9:39:09	24-07-00	1	TYPE 25 C-0004	0.225108932		SAFE
97	0.13	%	ACT	EFF	9:39:10	24-07-00	1	TYPE 25 C-0004	0.182901007		SAFE
98	0.08	%	ACT	EFF	9:39:11	24-07-00	1	TYPE 25 C-0004	0.112554466		SAFE
99	0.1	%	ACT	EFF	9:39:11	24-07-00	1	TYPE 25 C-0004	0.140693082		SAFE
100	0.05	%	ACT	EFF	9:39:12	24-07-00	1	TYPE 25 C-0004	0.070346541		SAFE
101	0.03	%	ACT	EFF	9:39:13	24-07-00	1	TYPE 25 C-0004	0.042207925		SAFE
102	0.15	%	ACT	EFF	9:39:14	24-07-00	1	TYPE 25 C-0004	0.211039623		SAFE
103	0.09	%	ACT	EFF	9:39:15	24-07-00	1	TYPE 25 C-0004	0.126623774		SAFE
104	0.13	%	ACT	EFF	9:39:15	24-07-00	1	TYPE 25 C-0004	0.182901007		SAFE

MEM#	VALUE	UNIT	RESULT	AXIS	TIME	DATE	CAL	PROBE	Duty Factor Adjusted	STATUS
105	0.03	%	ACT	EFF	9:39:16	24-07-00	1	TYPE 25 C-0004	0.042207925	SAFE
106	0.13	%	ACT	EFF	9:39:17	24-07-00	1	TYPE 25 C-0004	0.182901007	SAFE
107	0.02	%	ACT	EFF	9:39:18	24-07-00	1	TYPE 25 C-0004	0.028138616	SAFE
108	0.09	%	ACT	EFF	9:39:19	24-07-00	1	TYPE 25 C-0004	0.126623774	SAFE
109	0.02	%	ACT	EFF	9:39:19	24-07-00	1	TYPE 25 C-0004	0.028138616	SAFE
110	0.04	%	ACT	EFF	9:39:20	24-07-00	1	TYPE 25 C-0004	0.056277233	SAFE
111	0.07	%	ACT	EFF	9:39:21	24-07-00	1	TYPE 25 C-0004	0.098485158	SAFE
112	0	%	ACT	EFF	9:39:22	24-07-00	1	TYPE 25 C-0004	0	SAFE
113	0.05	%	ACT	EFF	9:39:23	24-07-00	1	TYPE 25 C-0004	0.070346541	SAFE
114	0.11	%	ACT	EFF	9:39:23	24-07-00	1	TYPE 25 C-0004	0.15476239	SAFE
115	0.06	%	ACT	EFF	9:39:24	24-07-00	1	TYPE 25 C-0004	0.084415849	SAFE
116	0.05	%	ACT	EFF	9:39:25	24-07-00	1	TYPE 25 C-0004	0.070346541	SAFE
117	0.06	%	ACT	EFF	9:39:26	24-07-00	1	TYPE 25 C-0004	0.084415849	SAFE
118	0.03	%	ACT	EFF	9:39:27	24-07-00	1	TYPE 25 C-0004	0.042207925	SAFE
119	0.01	%	ACT	EFF	9:39:27	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
120	0.03	%	ACT	EFF	9:39:28	24-07-00	1	TYPE 25 C-0004	0.042207925	SAFE
121	0.01	%	ACT	EFF	9:39:29	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
122	0.18	%	ACT	EFF	9:39:30	24-07-00	1	TYPE 25 C-0004	0.253247548	SAFE
123	0.01	%	ACT	EFF	9:39:31	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
124	0.01	%	ACT	EFF	9:39:31	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
125	0.04	%	ACT	EFF	9:39:32	24-07-00	1	TYPE 25 C-0004	0.056277233	SAFE
126	0.09	%	ACT	EFF	9:39:33	24-07-00	1	TYPE 25 C-0004	0.126623774	SAFE
127	0	%	ACT	EFF	9:39:34	24-07-00	1	TYPE 25 C-0004	0	SAFE
128	0.01	%	ACT	EFF	9:39:34	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
129	0	%	ACT	EFF	9:39:35	24-07-00	1	TYPE 25 C-0004	0	SAFE
130	0	%	ACT	EFF	9:39:36	24-07-00	1	TYPE 25 C-0004	0	SAFE
131	0	%	ACT	EFF	9:39:37	24-07-00	1	TYPE 25 C-0004	0	SAFE
132	0	%	ACT	EFF	9:39:38	24-07-00	1	TYPE 25 C-0004	0	SAFE
133	0	%	ACT	EFF	9:39:38	24-07-00	1	TYPE 25 C-0004	0	SAFE
134	0	%	ACT	EFF	9:39:39	24-07-00	1	TYPE 25 C-0004	0	SAFE
135	0	%	ACT	EFF	9:39:40	24-07-00	1	TYPE 25 C-0004	0	SAFE
136	0	%	ACT	EFF	9:39:41	24-07-00	1	TYPE 25 C-0004	0	SAFE
137	0	%	ACT	EFF	9:39:42	24-07-00	1	TYPE 25 C-0004	0	SAFE
138	0	%	ACT	EFF	9:39:42	24-07-00	1	TYPE 25 C-0004	0	SAFE
139	0.04	%	ACT	EFF	9:39:43	24-07-00	1	TYPE 25 C-0004	0.056277233	SAFE
140	0.04	%	ACT	EFF	9:39:44	24-07-00	1	TYPE 25 C-0004	0.056277233	SAFE
141	0.01	%	ACT	EFF	9:39:45	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
142	0.02	%	ACT	EFF	9:39:46	24-07-00	1	TYPE 25 C-0004	0.028138616	SAFE
143	0.03	%	ACT	EFF	9:39:46	24-07-00	1	TYPE 25 C-0004	0.042207925	SAFE
144	0	%	ACT	EFF	9:39:47	24-07-00	1	TYPE 25 C-0004	0	SAFE
145	0.07	%	ACT	EFF	9:39:48	24-07-00	1	TYPE 25 C-0004	0.098485158	SAFE
146	0	%	ACT	EFF	9:39:49	24-07-00	1	TYPE 25 C-0004	0	SAFE
147	0.01	%	ACT	EFF	9:39:50	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
148	0.04	%	ACT	EFF	9:39:50	24-07-00	1	TYPE 25 C-0004	0.056277233	SAFE
149	0	%	ACT	EFF	9:39:51	24-07-00	1	TYPE 25 C-0004	0	SAFE
150	0	%	ACT	EFF	9:39:52	24-07-00	1	TYPE 25 C-0004	0	SAFE
151	0.04	%	ACT	EFF	9:39:53	24-07-00	1	TYPE 25 C-0004	0.056277233	SAFE
152	0.03	%	ACT	EFF	9:39:54	24-07-00	1	TYPE 25 C-0004	0.042207925	SAFE
153	0.01	%	ACT	EFF	9:39:54	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
154	0	%	ACT	EFF	9:39:55	24-07-00	1	TYPE 25 C-0004	0	SAFE
155	0.01	%	ACT	EFF	9:39:56	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
156	0.05	%	ACT	EFF	9:39:57	24-07-00	1	TYPE 25 C-0004	0.070346541	SAFE
157	0.04	%	ACT	EFF	9:39:58	24-07-00	1	TYPE 25 C-0004	0.056277233	SAFE
158	0.02	%	ACT	EFF	9:39:58	24-07-00	1	TYPE 25 C-0004	0.028138616	SAFE

MEM#	VALUE	UNIT	RESULT	AXIS	TIME	DATE	CAL	PROBE	Duty Factor Adjusted	STATUS
159	0.05	%	ACT	EFF	9:39:59	24-07-00	1	TYPE 25 C-0004	0.070346541	SAFE
160	0.08	%	ACT	EFF	9:40:00	24-07-00	1	TYPE 25 C-0004	0.112554466	SAFE
161	0.02	%	ACT	EFF	9:40:01	24-07-00	1	TYPE 25 C-0004	0.028138616	SAFE
162	0.09	%	ACT	EFF	9:40:02	24-07-00	1	TYPE 25 C-0004	0.126623774	SAFE
163	0.07	%	ACT	EFF	9:40:02	24-07-00	1	TYPE 25 C-0004	0.098485158	SAFE
164	0.01	%	ACT	EFF	9:40:03	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
165	0.45	%	ACT	EFF	9:40:04	24-07-00	1	TYPE 25 C-0004	0.63311887	SAFE
166	0.12	%	ACT	EFF	9:40:05	24-07-00	1	TYPE 25 C-0004	0.168831699	SAFE
167	0.02	%	ACT	EFF	9:40:05	24-07-00	1	TYPE 25 C-0004	0.028138616	SAFE
168	0.02	%	ACT	EFF	9:40:06	24-07-00	1	TYPE 25 C-0004	0.028138616	SAFE
169	0.02	%	ACT	EFF	9:40:07	24-07-00	1	TYPE 25 C-0004	0.028138616	SAFE
170	0.01	%	ACT	EFF	9:40:08	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
171	0	%	ACT	EFF	9:40:09	24-07-00	1	TYPE 25 C-0004	0	SAFE
172	0.01	%	ACT	EFF	9:40:09	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
173	0.01	%	ACT	EFF	9:40:10	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
174	0.01	%	ACT	EFF	9:40:11	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
175	0.09	%	ACT	EFF	9:40:12	24-07-00	1	TYPE 25 C-0004	0.126623774	SAFE
176	0	%	ACT	EFF	9:40:13	24-07-00	1	TYPE 25 C-0004	0	SAFE
177	0	%	ACT	EFF	9:40:13	24-07-00	1	TYPE 25 C-0004	0	SAFE
178	0	%	ACT	EFF	9:40:14	24-07-00	1	TYPE 25 C-0004	0	SAFE
179	0	%	ACT	EFF	9:40:15	24-07-00	1	TYPE 25 C-0004	0	SAFE
180	0	%	ACT	EFF	9:40:16	24-07-00	1	TYPE 25 C-0004	0	SAFE
181	0	%	ACT	EFF	9:40:16	24-07-00	1	TYPE 25 C-0004	0	SAFE
182	0	%	ACT	EFF	9:40:17	24-07-00	1	TYPE 25 C-0004	0	SAFE
183	0	%	ACT	EFF	9:40:18	24-07-00	1	TYPE 25 C-0004	0	SAFE
184	0	%	ACT	EFF	9:40:19	24-07-00	1	TYPE 25 C-0004	0	SAFE
185	0	%	ACT	EFF	9:40:20	24-07-00	1	TYPE 25 C-0004	0	SAFE
186	0	%	ACT	EFF	9:40:20	24-07-00	1	TYPE 25 C-0004	0	SAFE
187	0	%	ACT	EFF	9:40:21	24-07-00	1	TYPE 25 C-0004	0	SAFE
188	0	%	ACT	EFF	9:40:22	24-07-00	1	TYPE 25 C-0004	0	SAFE
189	0	%	ACT	EFF	9:40:23	24-07-00	1	TYPE 25 C-0004	0	SAFE
190	0	%	ACT	EFF	9:40:24	24-07-00	1	TYPE 25 C-0004	0	SAFE
191	0	%	ACT	EFF	9:40:24	24-07-00	1	TYPE 25 C-0004	0	SAFE
192	0	%	ACT	EFF	9:40:25	24-07-00	1	TYPE 25 C-0004	0	SAFE
193	0.09	%	ACT	EFF	9:40:26	24-07-00	1	TYPE 25 C-0004	0.126623774	SAFE
194	0	%	ACT	EFF	9:40:27	24-07-00	1	TYPE 25 C-0004	0	SAFE
195	0	%	ACT	EFF	9:40:28	24-07-00	1	TYPE 25 C-0004	0	SAFE
196	0	%	ACT	EFF	9:40:28	24-07-00	1	TYPE 25 C-0004	0	SAFE
197	0	%	ACT	EFF	9:40:29	24-07-00	1	TYPE 25 C-0004	0	SAFE
198	0	%	ACT	EFF	9:40:30	24-07-00	1	TYPE 25 C-0004	0	SAFE
199	0	%	ACT	EFF	9:40:31	24-07-00	1	TYPE 25 C-0004	0	SAFE
200	0	%	ACT	EFF	9:40:32	24-07-00	1	TYPE 25 C-0004	0	SAFE
201	0.02	%	ACT	EFF	9:40:32	24-07-00	1	TYPE 25 C-0004	0.028138616	SAFE
202	0.08	%	ACT	EFF	9:40:33	24-07-00	1	TYPE 25 C-0004	0.112554466	SAFE
203	0.23	%	ACT	EFF	9:40:34	24-07-00	1	TYPE 25 C-0004	0.323594089	SAFE
204	0	%	ACT	EFF	9:40:35	24-07-00	1	TYPE 25 C-0004	0	SAFE
205	0	%	ACT	EFF	9:40:36	24-07-00	1	TYPE 25 C-0004	0	SAFE
206	0	%	ACT	EFF	9:40:36	24-07-00	1	TYPE 25 C-0004	0	SAFE
207	0	%	ACT	EFF	9:40:37	24-07-00	1	TYPE 25 C-0004	0	SAFE
208	0.02	%	ACT	EFF	9:40:38	24-07-00	1	TYPE 25 C-0004	0.028138616	SAFE
209	0.04	%	ACT	EFF	9:40:39	24-07-00	1	TYPE 25 C-0004	0.056277233	SAFE
210	0	%	ACT	EFF	9:40:40	24-07-00	1	TYPE 25 C-0004	0	SAFE
211	0.01	%	ACT	EFF	9:40:40	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE
212	0.01	%	ACT	EFF	9:40:41	24-07-00	1	TYPE 25 C-0004	0.014069308	SAFE



MEM#	VALUE	UNIT	RESULT	AXIS	TIME	DATE	CAL	PROBE	Duty Factor Adjusted	STATUS
213	0.04	%	ACT	EFF	9:40:42	24-07-00	1	TYPE 25 C-0004	0.056277233	SAFE
214	0.05	%	ACT	EFF	9:40:43	24-07-00	1	TYPE 25 C-0004	0.070346541	SAFE
215	0	%	ACT	EFF	9:40:44	24-07-00	1	TYPE 25 C-0004	0	SAFE
216	0.03	%	ACT	EFF	9:43:44	24-07-00	1	TYPE 25 C-0004	0.042207925	SAFE
217	0.04	%	ACT	EFF	9:43:45	24-07-00	1	TYPE 25 C-0004	0.056277233	SAFE
218	0.05	%	ACT	EFF	9:43:46	24-07-00	1	TYPE 25 C-0004	0.070346541	SAFE
219	0.04	%	ACT	EFF	9:43:47	24-07-00	1	TYPE 25 C-0004	0.056277233	SAFE

0.63311887

# THEORETICAL CALCULATIONS

This calculator assumes that all BR ERP's are the same. Enter the number of BR's in the field given and the sum of "Nextel's Total Exposure %" will be reflected at the bottom.

For Nextel-only tower sites, if the Worker and Public percentages are both less than 100% the site is in compliance and is recertified on 5-year intervals.

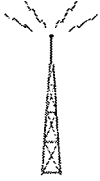
Contact Nextel RF Operations with questions.

Site Name: Brookfield Site Number: CT0068

Site Address: 39 Carmen Hill Road Brookfield, CT 06804

Site Coordinates: 41 29' 35" 73 25' 42"

**Instructions: Enter information into shaded fields only.**

Frequency of BR (in MHz):	850.0000	# of BR's:	24
ERP per BR (in Watts) from Link Budget:	100	100,000.00 mW	
ERP Per BR (in dBW)	20.0		
RC Height Above Ground (in feet) [Y]:	257	7,833.4 cm	
Distance Between Tower and Closest Point Worker Would Be* (in feet) [X1]:	1	30.5 cm	
Distance Between Tower and Closest Point on Fence Line* (in feet) [X2]:	5	152.4 cm	
Radial Distance to Worker Point of Interest (in feet) [R1]:	257.0	7,833.4 cm	
Radial Distance to Public Point of Interest (in feet) [R2]:	257.0	7,834.8 cm	
Angle from horizon to Worker Point of Interest (in degrees)	89.8		
Angle from horizon to Closest point on Fence Line (in degrees)	88.9		
Antenna centerline mechanical downtilt, if any (in degrees)	0.0		
Angle between antenna centerline and radial to Worker Point of Interest (in degrees)	89.8		
Angle between antenna centerline and radial to Closest Point on Fence Line (in degrees)	88.9		
Difference between maximum antenna gain and antenna gain along radial to Worker point of interest (in dB)	9.3		
Difference between maximum antenna gain and antenna gain along radial to Closest Point on Fence Line (in dB)	9.3		
ERP at antenna toward Worker Point of Interest (dBW)	10.7		
ERP at antenna toward Closest Point on Fence Line (dBW)	10.7		
ERP at antenna toward Worker Point of Interest (Watts)	11.749	11,749.0 mW	
ERP at antenna toward Closest Point on Fence Line (Watts)	11.749	11,749.0 mW	

Power Density @ Worker Point of Interest: 0.0000250 mW/cm<sup>2</sup>      S=(0.41)(ERP)/(pi)(R1)<sup>2</sup>  
 Power Density @ Public Point of Interest: 0.0000250 mW/cm<sup>2</sup>      S=(0.41)(ERP)/(pi)(R2)<sup>2</sup>

ANSI 1992 Standard MPE:

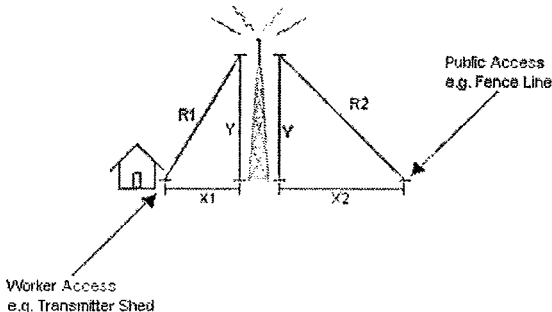
Controlled Environment (Worker):	2.833 mW/cm <sup>2</sup>	(time-average of 6 minutes)
Uncontrolled Environment (Public):	0.567 mW/cm <sup>2</sup>	(time-average of 30 minutes)

Nextel Signal Percentage of Total MPE per BR:

		<u>Nextel's Total Exposure (sum of all BR's):</u>	
Controlled Environment (Worker):	0.000882 %	Worker:	0.021166 %
Uncontrolled Environment (Public):	0.004408 %	Public:	0.105793 %

Per-BR ERP required to produce 5% of MPE at Worker Point of Interest	23,622.5 watts
Per-BR ERP required to produce 5% of MPE at Closest Point on Fence Line	4,726.2 watts

\* X1 refers to the horizontal distance between the base of the tower and the nearest point on the property that a worker would work for any length of time e.g. a transmitter shed. X2 refers to the horizontal distance between the base of the tower and the nearest point on the property line that the public could walk up to or have access e.g. closest point on fence line.



## ENGINEERING ANALYSIS

Previous measurements of RF exposure performed throughout the area surrounding the base of the tower was found not to exceed 100% of the FCC occupational/controlled and public/uncontrolled MPE limits.

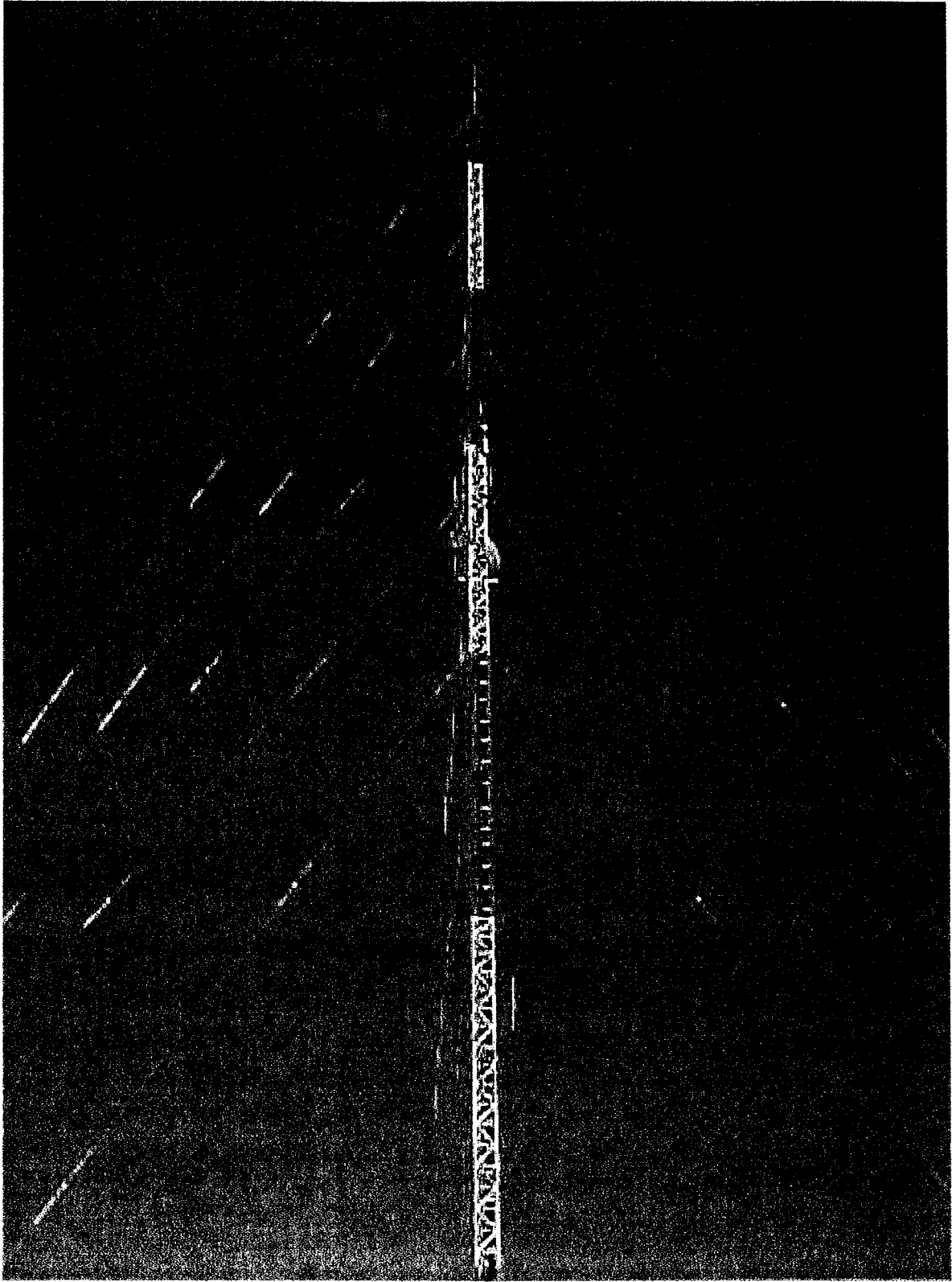
The measurements taken demonstrate that the maximum potential exposure to radio frequency emissions is below the FCC recommended levels for both the occupational/controlled and public/uncontrolled environments. The maximum levels from all antennas reaches 0.6331%<sup>1</sup> of the controlled limits for safety. This is the cumulative result from all transmitters located on the tower. The maximum level of exposure from all transmitting antennas is over 150 times less than the FCC limit for exposure for occupational/controlled limits and over 30 times less than the FCC limit for exposure for public/uncontrolled limits.

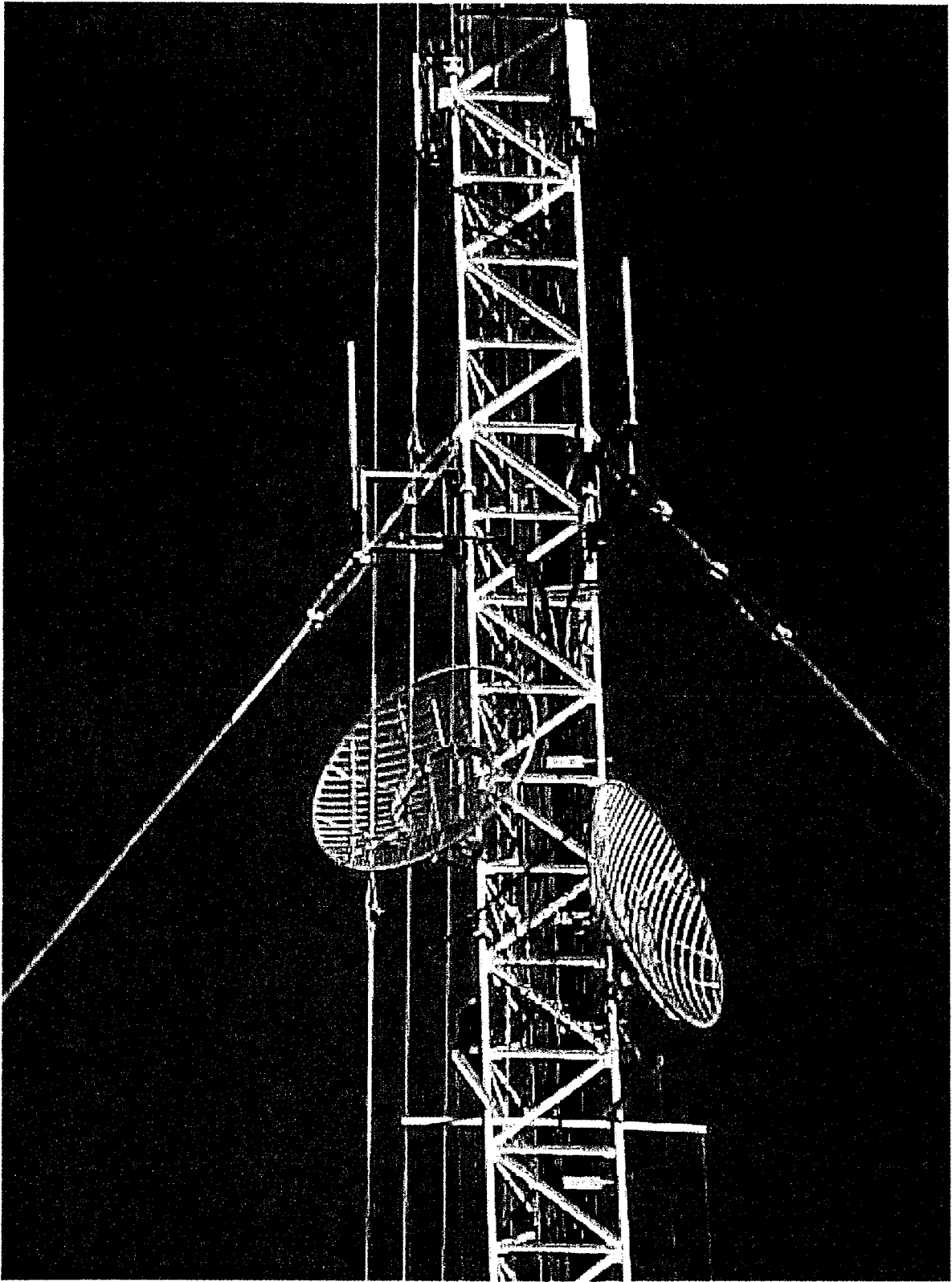
Theoretical calculations and analysis for the proposed new antenna configuration demonstrate that the maximum potential exposure to radio frequency emissions is still below the FCC recommended levels for both the occupational/controlled and public/uncontrolled environments. The maximum calculated levels of exposure from the new Nextel antennas reaches 0.021% of the controlled limits for safety and 0.105% of the uncontrolled limits for safety. The maximum levels from the proposed Nextel antennas will be almost 5000 times less than the FCC limits for exposure for occupational/controlled limits and almost 1000 times less than the FCC limits for exposure for public/uncontrolled limits.

Again, worst case assumptions were used to ensure safe-side estimates. The actual values will be significantly lower than the calculated analytical values.

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<sup>1</sup> All measurements have been adjusted to represent worst case assumptions by compensating with a duty factor (adjustments made to simulate busy hour conditions)





## APPENDIX B. Limits for Maximum Permissible Exposure (MPE)

### (A) Limits for Occupational/Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f <sup>2</sup> )*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

### (B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz      \*Plane-wave equivalent power density

NOTE 1: *Occupational/controlled* limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2: *General population/uncontrolled* exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure

# Plane-wave Equivalent Power Density

