



# 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 2, 2002

Christopher Klem  
RF Manager  
Nextel Communications  
100 Corporate Place  
Rocky Hill, CT 06067

RE: **EM-NEXTEL-164-020320** – Nextel Communications notice of intent to modify an existing telecommunications facility located at 99 Day Hill Road, Windsor, Connecticut.

Dear Mr. Klem:

At a public meeting held on April 25, 2002, 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.

The proposed modifications are to be implemented as specified here and in your notice dated March 20, 2002. 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/DM/laf

c: Mr. R. Leon Churchill, Jr., Town Manager, Town of Windsor  
Mr. Christopher Fisher, Cuddy & Feder & Worby

**Nextel Communications**

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

**NEXTEL®**

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APR - 9 2002

CONNECTICUT  
SITING COUNCIL

April 3, 2002

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

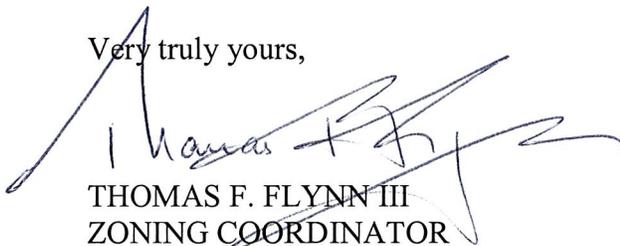
Re: Nextel Application for an Exempt Modification of an Existing Tower  
99 Day Hill Road, Windsor, CT.

Dear Chairman Gelston,

Enclosed please find a revised power density calculation for the above noted tower. This calculation includes the Sprint antennas on this facility. The Town antennas that are shown on the plans are not in use and there is no calculation that can be submitted at this time. The Town is in the process of redesigning its entire radio network. As a cost saving measure, the Town had the antenna installed on the tower when AT&T Wireless built the site and had the necessary equipment in place.

Please accept our apologies for any inconvenience to you or the staff for the change.

Very truly yours,



THOMAS F. FLYNN III  
ZONING COORDINATOR  
NEXTEL COMMUNICATIONS



Ronald C. Clark  
Manager Real Estate Operations

Nextel Communications  
100 Corporate Place, Rocky Hill, CT 06067  
860 883-2112 FAX 860 513-5444

**NEXTEL**

March 20, 2002

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

**RECEIVED**

MAR 20 2002  
CONNECTICUT  
SITING COUNCIL

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 99 Day Hill Road, Windsor, Connecticut. This facility is located on property owned by the Town of Windsor. The tower is owned by AT&T Wireless and is currently used by AT&T 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.

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,



Ronald C. Clark  
Manager Real Estate Operations

Enclosure

Cc: Honorable Donald Trinks, Mayor  
Leon Churchill, Town Manager

**EXEMPT MODIFICATION  
99 DAY HILL ROAD  
WINDSOR, CONNECTICUT 06095**

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 99 Day Hill Road, Windsor, Connecticut.

**BACKGROUND**

This existing facility, located at 99 Day Hill Road in Windsor, Connecticut consists of a 170-foot tall monopole that is owned by AT&T Wireless and is located on property of the Town of Windsor that also serve as the Public Works Department garage. The tower is currently used by AT&T to provide service coverage to this section of Windsor, State Route 75, the Windsor Industrial Park and along Interstate I-91.

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 160-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 fenced 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**

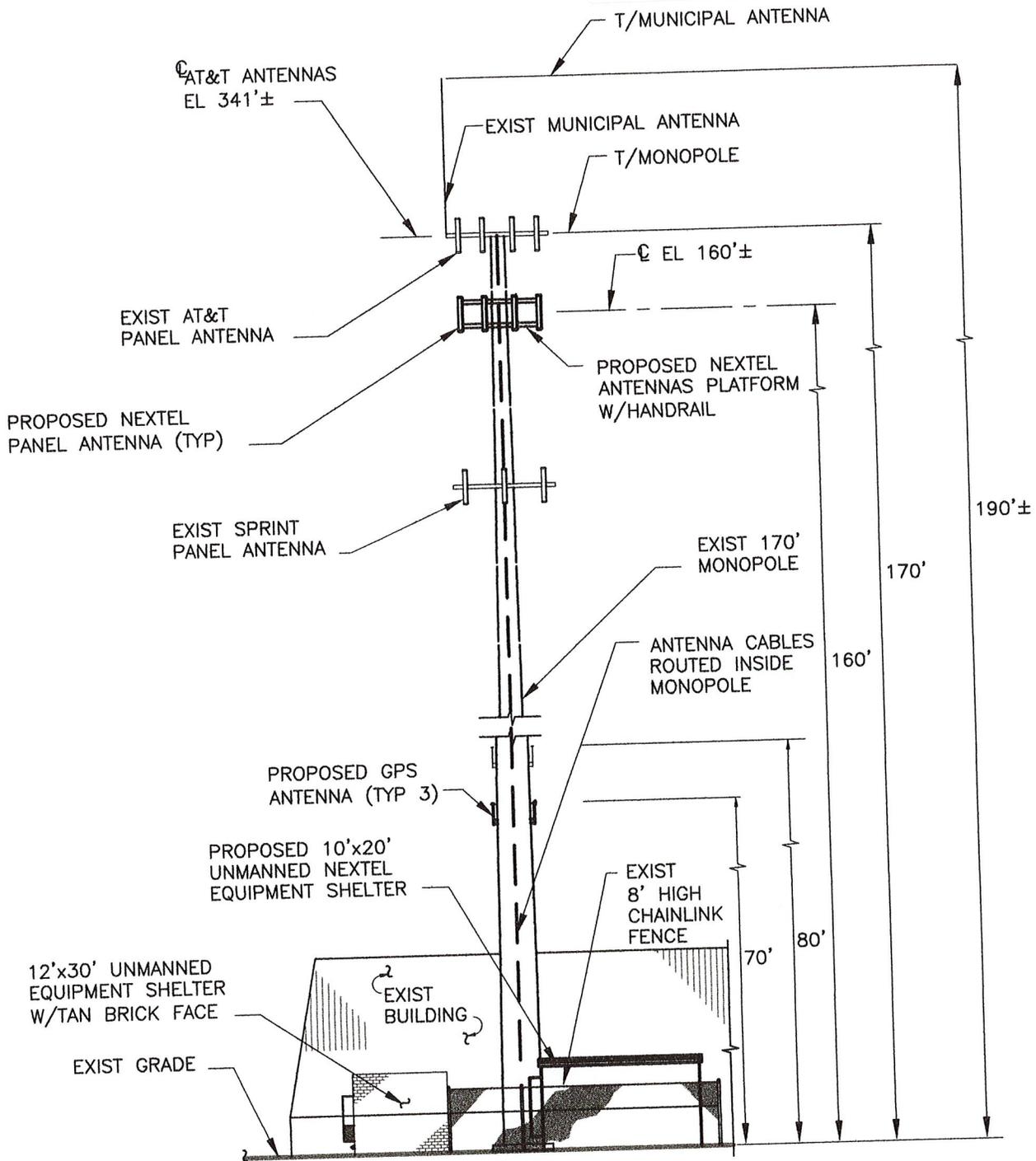
The operation of Nextel's antennas will not increase the total radio frequency electromagnetic power density level to a level at (or even near) existing State and Federal Standards. "Worst case" calculations, measured to a point at the base of the tower, show the combined power levels for the existing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

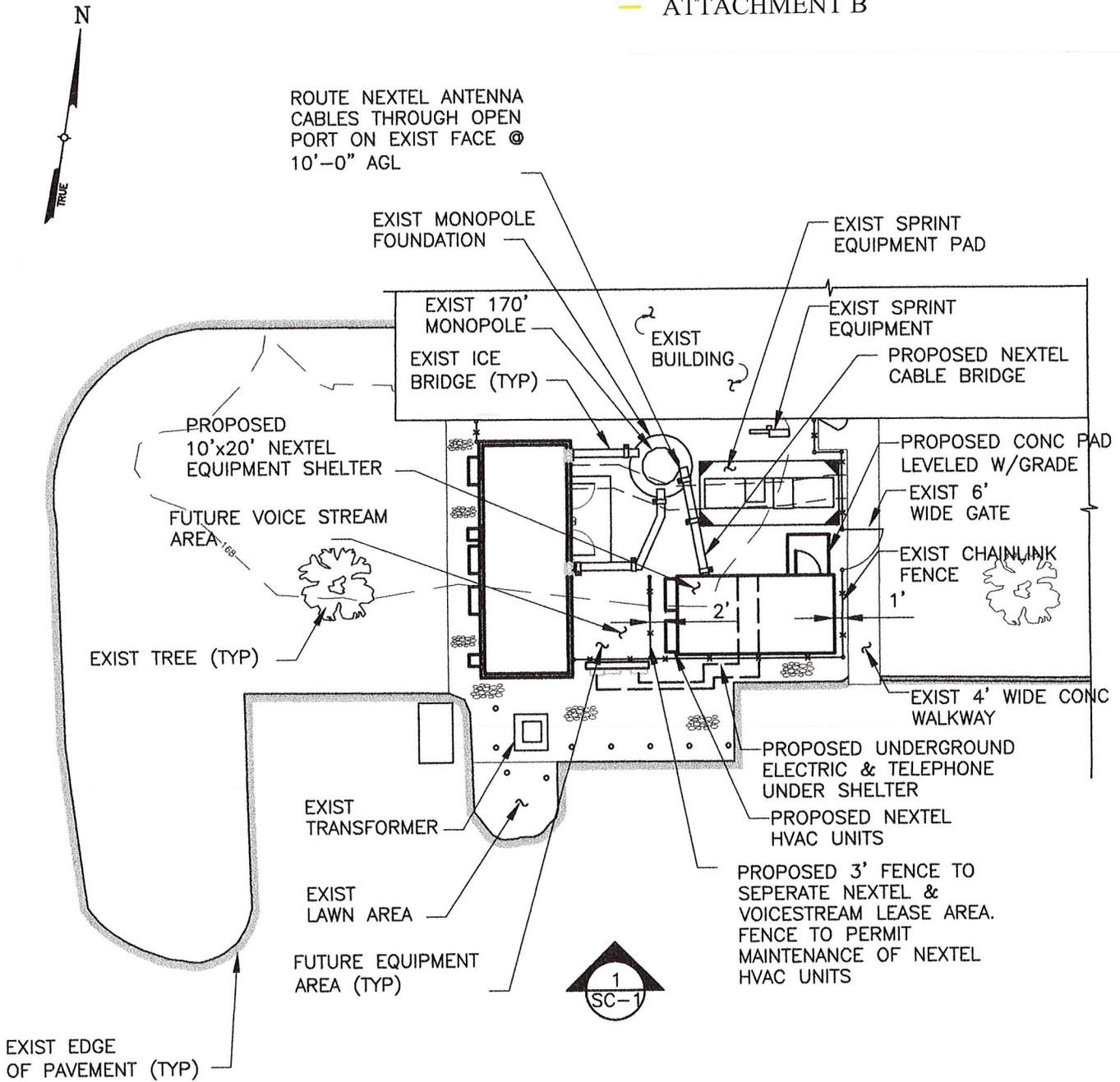
ATTACHMENT A



1 ELEVATION  
SC-1 SCALE: 1" = 20'

SHEET 1 OF 2

|   |  |   |                |
|---|--|---|----------------|
| <b>TECTONIC / KEYES ASSOCIATES</b><br>1344 SILAS DEANE HIGHWAY, SUITE 500<br>ROCKY HILL, CT 06067<br>(860) 563-2341 |  | <b>NEXTEL</b><br>WINDSOR (CT-0039)<br>99 DAY HILL ROAD<br>WINDSOR, CT |                |
| ISSUED BY:  |  | W.O. 2993.0929  | 03/11/02       |
|   |  | 02/22/02  | SITING COUNCIL |
|   |  |   | SC-1           |



1 SITE DETAIL PLAN  
SC-2 SCALE: 1" = 20'

SHEET 2 OF 2

**TECTONIC / KEYES ASSOCIATES**

1344 SILAS DEANE HIGHWAY, SUITE 500  
ROCKY HILL, CT 06067  
(860) 563-2341 FAX(860) 257-4882

**NEXTEL**

WINDSOR (CT-0039)  
99 DAY HILL ROAD  
WINDSOR, CT

03/11/02

ISSUED BY:

W.O. 2993.0929

02/22/02

SITING COUNCIL

SC-2

| Windsor, CT (Day Hill Rd.) - CT Siting Council Power Density Calculations |                  |                                 |                    |                     |                                     |   |  |       |                  |
|---|------------------|---------------------------------|--------------------|---------------------|-------------------------------------|---|--|-------|------------------|
| Nextel Directional Antennas ESMR - 851 MHz at centerline 160' AGL         |                  |                                 |                    |                     |                                     |   |  |       |                  |
| Transmitters:   | Frequency in MHz | CT Standard mW/ cm <sup>2</sup> | Number of Channels | ERP (W) per channel | Centerline of Tx antennas AGL (ft.) | Power density calculated at base of tower | Note: Power densities are in mW/ cm <sup>2</sup> |       |                  |
|   |                  |                                 |                    |                     |                                     |   |  |       | % of CT Standard |
| AT&T  | *                | 0.5793                          | *                  | *                   | 170                                 | 0.01077                                   |  | 1.86% |                  |
| Nextel Digital ESMR - Proposed  | 851              | 0.5673                          | 9                  | 100                 | 160                                 | 0.012635156                               |  | 2.23% |                  |
| Total % of CT Standard  |                  |                                 |                    |                     |                                     |   |  | 4.09% |                  |

1344 Silas Deane Highway, Suite 500  
Rocky Hill, Connecticut 06067

(860) 563-2341 Fax: (860) 257-4882  
www.tectonicengineering.com

Mr. Rick Neller  
Nextel Communications  
100 Corporate Place  
Rocky Hill, CT 06067

March 11, 2002  
Revision 1

**RE: W.O. 2993.0929  
WINDSOR DAY HILL, CT-0039  
EXISTING MONOPOLE  
99 DAY HILL ROAD  
WINDSOR, CT  
STRUCTURAL CAPACITY**

Dear Mr. Neller:

It is our understanding that Nextel Communications is proposing to install antennas on the existing 168' monopole at the above referenced site. Tectonic/Keyes Associates has performed a limited inspection of the structure and a review of its design for its suitability to support the proposed antennas based on the following information:

- Structure & Foundation Design Calculations prepared by Summit Manufacturing LLC, dated 11/8/00. Job # 29200-1654. Design # 12007. Stamped by Professional Engineer Kevin P. Bauman.

The original design was based on ANSI/TIA/EIA-222-F 1996 using a basic wind speed of 80 mph with ½" of ice. The structure was designed to support the following items:

- 1 – 5/8" lightning rod at the 168' level
- 12 Allgon 7184.14 antennas & 14' low profile platform at the 168' level
- 12 Swedcom ALP-9212-N antennas & 14' low profile platform at the 163' level
- 12 Swedcom ALP-9212-N antennas & 14' low profile platform at the 148' level
- 12 Swedcom ALP-9212-N antennas & 14' low profile platform at the 133' level
- 12 Swedcom ALP-9212-N antennas & 14' low profile platform at the 118' level
- 12 Swedcom ALP-9212-N antennas & 14' low profile platform at the 103' level

Currently, AT&T Wireless has 12 Allgon antennas located on a platform at the top of the tower. Sprint PCS has 6 antennas located on a platform at a lower elevation on the tower. All coaxial cables are contained within the monopole structure

We understand that Nextel is proposing to install a total of 12 DB844H90(E)-XY antennas at the 160' level. Additionally, we understand that the Nextel antennas will be mounted on a standard platform with handrails.

ENGINEERS • SURVEYORS • CONSTRUCTION MANAGERS

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2993.0929

2

March 11, 2002

In accordance with the provisions of ANSI/TIA/EIA-222-F-1996, "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures" and the 1999 Connecticut Supplement to the BOCA National Building Code/1996, a basic wind speed of 80 mph applies to Hartford County, CT, where the tower is located. The design calculations prepared by Summit Manufacturing LLC used a wind speed of 80 mph.

We have not inspected the structure in detail, and therefore assume that the tower and its foundation were built in accordance with the manufacturer's drawings and specifications, and that the structure is in the "like-new" condition.

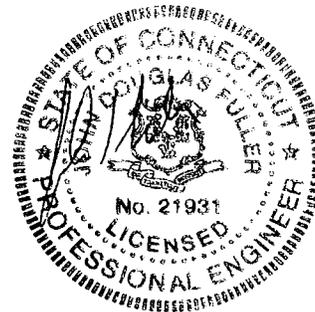
We have not preformed a detailed structural analysis of the tower, but have compared forces generated from the antennas and mounts of the original design to those generated by the proposed condition. Based on our extensive experience with similar structures and a comparison with the original tower design, it is clear that the tower and its foundation have adequate capacity to support this installation in accordance with current applicable codes.

Please contact this office if you require any further information.

Sincerely,  
TECTONIC/KEYES ASSOCIATES

  
John D. Fuller, P.E.  
Telecommunications Manager

Cc: File  
Tom Flynn, Nextel





# STATE OF CONNECTICUT

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March 26, 2002

### **Via Facsimile**

Mr. Ronald C. Clark  
Manager Real Estate Operations  
Nextel Communications  
100 Corporate Place  
Rocky Hill, CT 06067

Dear Mr. Clark:

With regard to your recent request to Modify an Exempt Tower at an existing telecommunications facility located on 99 Day Hill Road, Windsor, I would like additional information about the power density calculations for this site.

More specifically:

- 1) the tower elevation identifies existing Sprint panel antennas, however no mention of these antennas is made in your request including the power density calculations provided in Attachment C. Please provide the following information for these antennas: number of channels, ERP(watts) per channel, distance above ground level, and operating frequency in Mhz;
- 2) Please provide this same information for the municipal antenna also identified on the tower elevation.
- 3) Please provide the number of operating channels and ERP(watts) per channel for the AT&T antennas. In addition, most of the requests to modify exempt facilities received from AT&T, identify that company's operating frequency as 1945 Mhz rather than the 869 Mhz indicated by Attachment C. Please verify the AT&T operating frequency.

In addition, because this tower is not included in previous filings with the Siting Council, please provide the latitude and longitude coordinates for this tower.

If you have any questions regarding these requests, please feel free to call me at the above number. Thank you for your assistance in this matter.

Sincerely,

David Martin  
Siting Analyst

**Nextel  
99 Day Hill Road,  
Windsor 3/27/02**

