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

May 8, 2002

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

RE: **EM-NEXTEL-162-020122** - Nextel Communications Inc. notice of intent to modify an existing telecommunications facility located on Oakdale Avenue, Winsted, Connecticut.

Dear Mr. Klem:

At a public meeting held on May 7, 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. Although no conditions have been placed on this approval, I am attaching a letter from the Town of Winchester, dated January 31, 2002, for your review and consideration.

The proposed modifications are to be implemented as specified here and in your notices dated January 18, 2002, and April 18, 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/RM/laf

c: Honorable John F. Arcelaschi, Mayor, Town of Winchester
Margaret A. Johnson, Town Manager, Town of Winchester
Anthony Cannavo, Planning and Zoning Chairman, Town of Winchester
Maureen Woodstrom, SpectraSite Communications
Michele G. Briggs, SNET Mobility LLC
Christopher B. Fisher, Esq., Cuddy & Feder & Worby LLP
Brian Benito, Bureau of Police Support

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TOWN OF WINCHESTER – CITY OF WINSTED

January 31, 2002

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

Re: EM-NEXTEL-162-020122: Oakdale Ave., Winsted CT

Dear Mr. Phelps:

Thank you for the opportunity to comment on the above referenced application. After reviewing the site plan, I have the following comments:

1. The equipment shelter will be subject to a building permit prior to start of construction. The applicant needs to contact the Building Department to secure the proper application forms and plan requirements;
2. I recommend the site plan be modified to include standard erosion and sedimentation controls;
3. Will this structure be visible from neighboring residents or from the street? If so, the site plan should include a tree buffer; and
4. Adequate security should be submitted to the Council to assure that any required landscaping is completed and sustained. Also, an erosion and sedimentation control bond should be submitted to the Council to ensure mitigation of any erosion and/or runoff problems that may occur.

Sincerely,

Raymond A. Carpentino
Town Planner

Office of the Town Planner

Town Hall
338 Main St.
Winsted CT 06098

Raymond A. Carpentino
Town Planner

Phone: 860-738-6593
email: townplanner@townofwinchester.org
Fax: 860-738-7053

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

NEXTEL®

April 18, 2002

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

Re: Nextel's Application for an Exempt Modification
Oakdale Avenue, Winsted, CT.

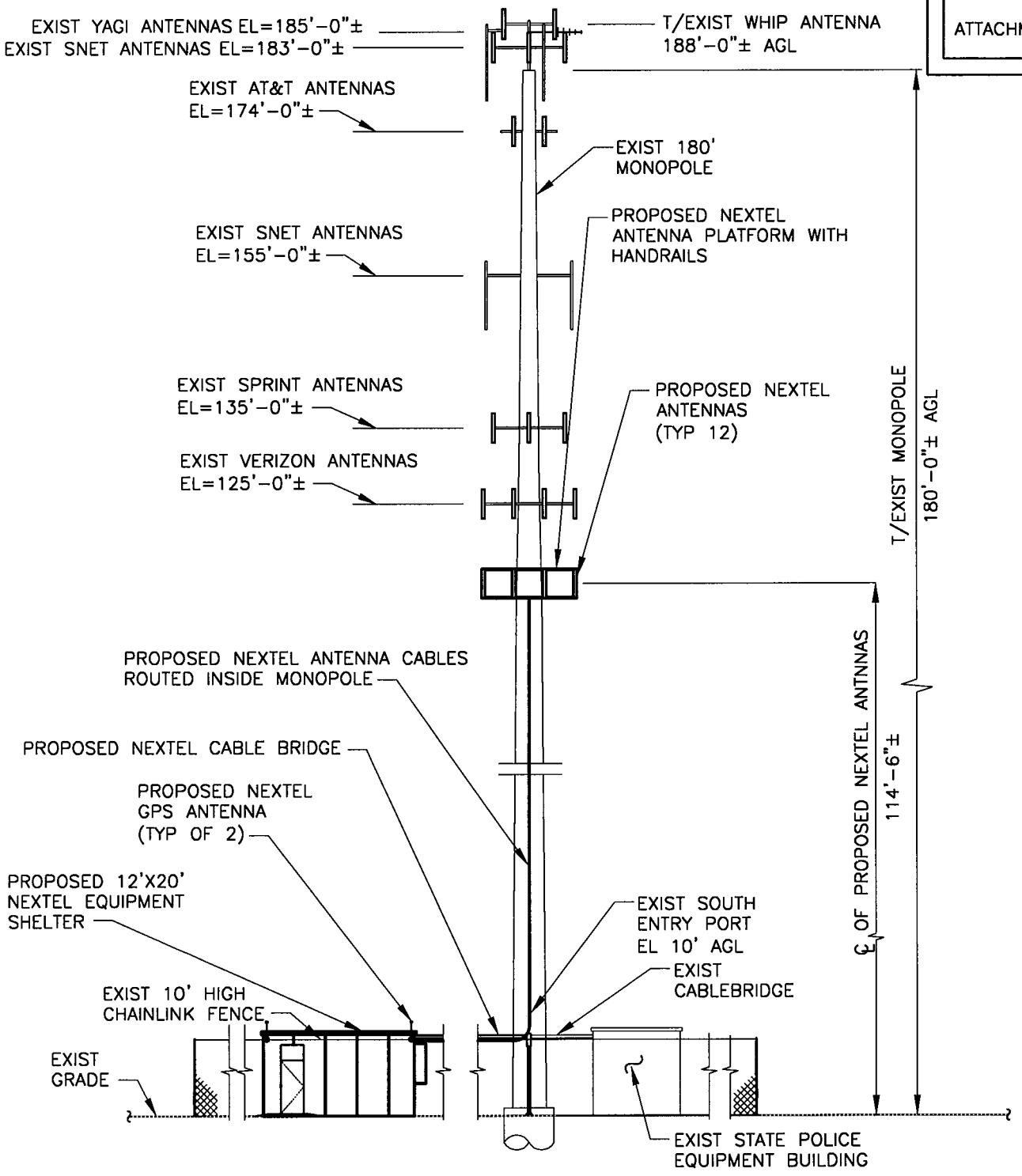
Dear Mr. Gelston,

Enclosed please find a revised tower elevation, site plan, structural report and power density analysis for your consideration in connection with the above noted application. Please feel to have the Council's staff contact me if they are in need of any further information.

Very truly yours,

THOMAS F. FLYNN III
ZONING COORDINATOR
NEXTEL COMMUNICATIONS INC.

ATTACHMENT A



1 / SC-1 ELEVATION

SCALE: 1" = 20'

SHEET 1 OF 2

TECTONIC /KEYES ASSOCIATES

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

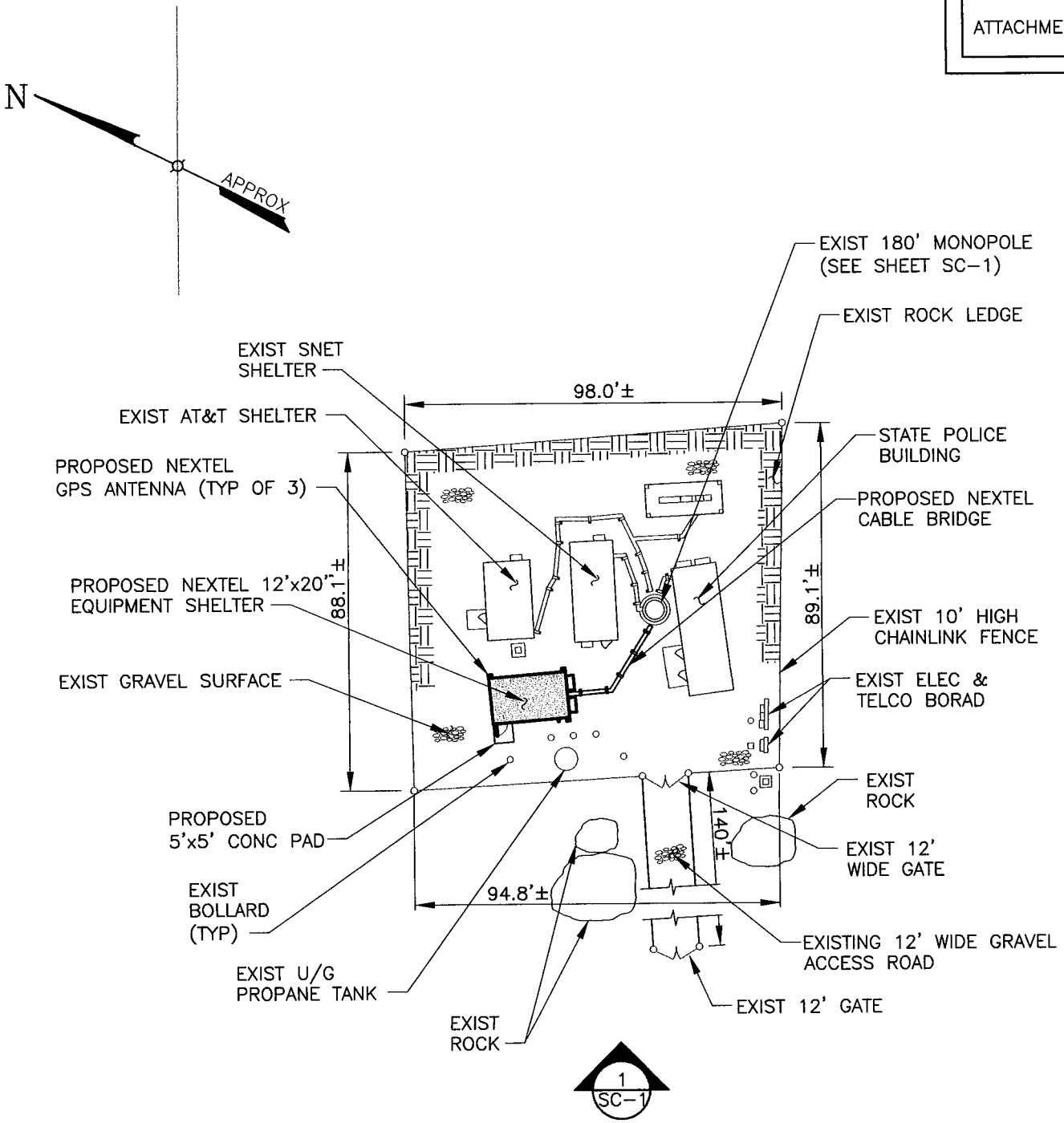
03/13/02
12/14/01

NEXTEL

WINSTED CENTRAL (CT-3655)
OAKDALE AVENUE
WINCHESTER, CT

ISSUED BY:	W.O. 2993.3655	10/17/01	SITING COUNCIL	SC-1

ATTACHMENT B



1
SC-2

SITE DETAIL PLAN

SCALE: 1" = 40'

SHEET 2 OF 2

TECTONIC /KEYES ASSOCIATES

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

03/13/02		
12/14/02		
ISSUED BY:	W.O. 2993.3655	10/17/01

NEXTEL

WINSTED CENTRAL (CT-3655)
OAKDALE AVENUE
WINCHESTER, CT

SITING COUNCIL | SC-2

TECTONIC / *KEYES ASSOCIATES*
Division of TECTONIC Engineering Consultants P.C.

CORPORATE OFFICE:
Mountainville, NY (800)-829-6531

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

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

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

ATTACHMENT C

March 18, 2002

RE: W.O. 2993.3655
WINSTEAD CENTRAL (CT-3655)
SPECTRASITE TOWER
OAKDALE AVENUE
WINSTEAD, CT
SUMMARY OF STRUCTURAL REVIEW

Dear Mr. Neller:

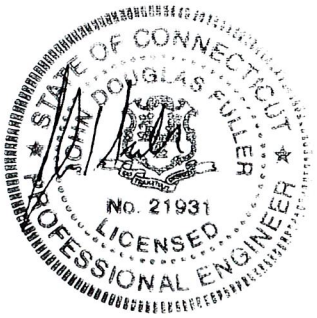
Nextel Communications proposes to mount its antennas on an existing 180' monopole at the above referenced site. At the request of Nextel, Spectrasite Communications, Inc. has performed a structural analysis of the existing tower to evaluate its capacity to support the proposed Nextel antennas.

The analysis was performed in accordance with the 1999 Connecticut supplement to the BOCA National Building Code and the national standard ANSI/TIA/EIA-222-F-1996 "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures." The detailed report by Spectrasite is dated 2/14/02.

Tectonic/Keyes Associates has reviewed this analysis. The results of this analysis indicate that the existing tower has sufficient capacity to support the proposed Nextel antenna installation. No significant changes to the existing structure are necessary. The analysis also verified that the existing tower foundation is adequate for the proposed additional loads.

The structure therefore has sufficient capacity to support the proposed Nextel installation in accordance with all applicable codes.

Please contact this office if you require any further information.



Sincerely,
TECTONIC ENGINEERING CONSULTANTS, P.C.

John D. Fuller, P.E.
Telecommunications Manager

Cc: File
Tom Flynn, Nextel Communications

Winsted, CT (Oakdale Ave.) - CT Siting Council Power Density Calculations

Nextel Directional Antennas ESMR - 851 MHz at centerline 114' AGL

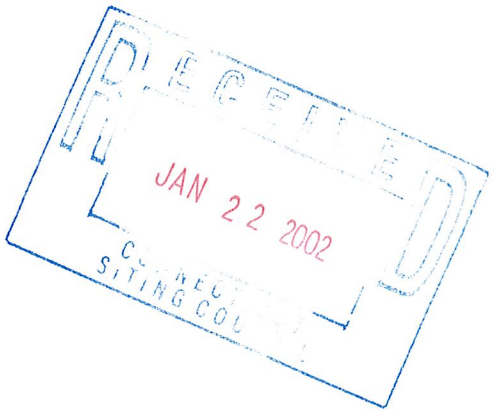
Note: Power densities are in mW/ cm²

Transmitters:	Frequency in MHz	CT Standard mW/ cm²	Number of Channels	ERP (W) per channel	Centerline of Tx antennas AGL (ft.)	Power density calculated at base of tower	% of CT Standard
SCLP	*	0.5867	*	*	188	**0.02271**	**3.87%**
State Police	*	0.5773	*	*	185	**0.03034**	**5.26%**
SNET	*	0.5867	*	*	183	**0.02039**	**3.48%**
AT&T	*	0.5793	*	*	174	**0.01077**	**1.86%**
SNET	*	0.5867	*	*	155	**0.02842**	**4.84%**
Sprint	*	1.0000	*	*	135	**0.02948**	**2.95%**
Verison	*	0.583	*	*	125	**0.0552**	**9.47%**
Nextel Digital ESMR - Proposed	851	0.5673	9	100	114	**0.024889197**	**4.39%**
Total % of CT Standard							**36.11%**

ATTACHMENT D

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

NEXTEL



January 18, 2002

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 Oakdale Avenue, Winsted, Connecticut. This facility is owned and Managed by SpectraSite Communications Inc. and is currently used by Cingular Wireless, AT&T, and the Connecticut State Police 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:

EXEMPT MODIFICATION
OAKDALE AVENUE
WINSTED, 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 Oakdale Avenue in Winsted, Connecticut.

BACKGROUND

This existing facility, located at Oakdale Avenue in Winsted, CT. consists of a 186-foot tall monopole that is owned and managed by SpectraSite Communications Inc. The tower is currently used by Cingular Wireless, AT&T, and the Connecticut State Police and provides wireless coverage to this section of Winsted, State Route 44 and Route 8.

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 138-foot level of the tower (see Attachment A) and place a 12-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 (see 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 Sprint and proposed Nextel antennas reach just 21.92% of the State/Federal standard in an uncontrolled access environment. (See Attachment D).

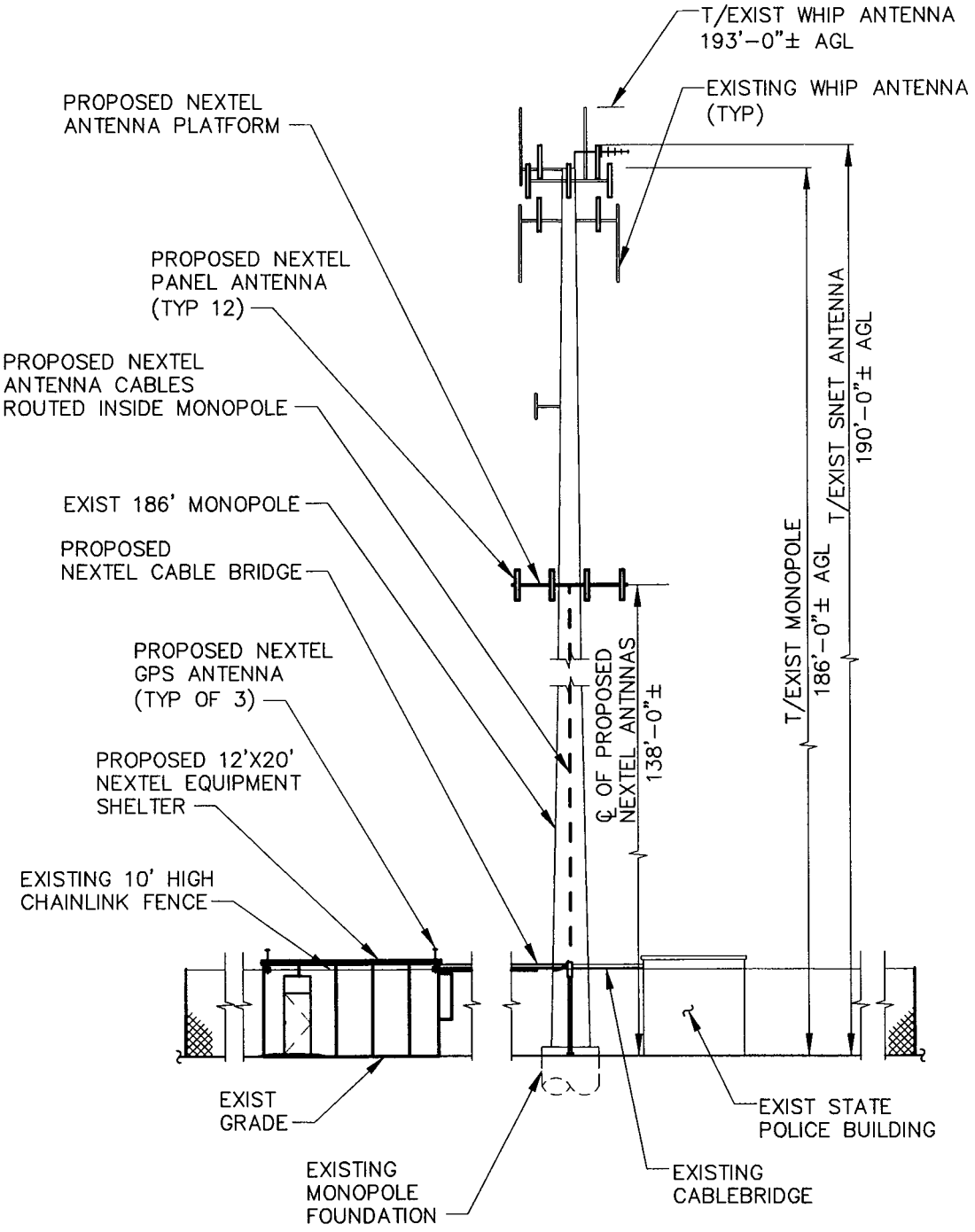
CONCLUSION

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

ATTACHMENT A



1
SC-1

TOWER ELEVATION

SCALE: 1"=10'

SHEET 1 OF 2

TECTONIC/KEYES ASSOCIATES

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

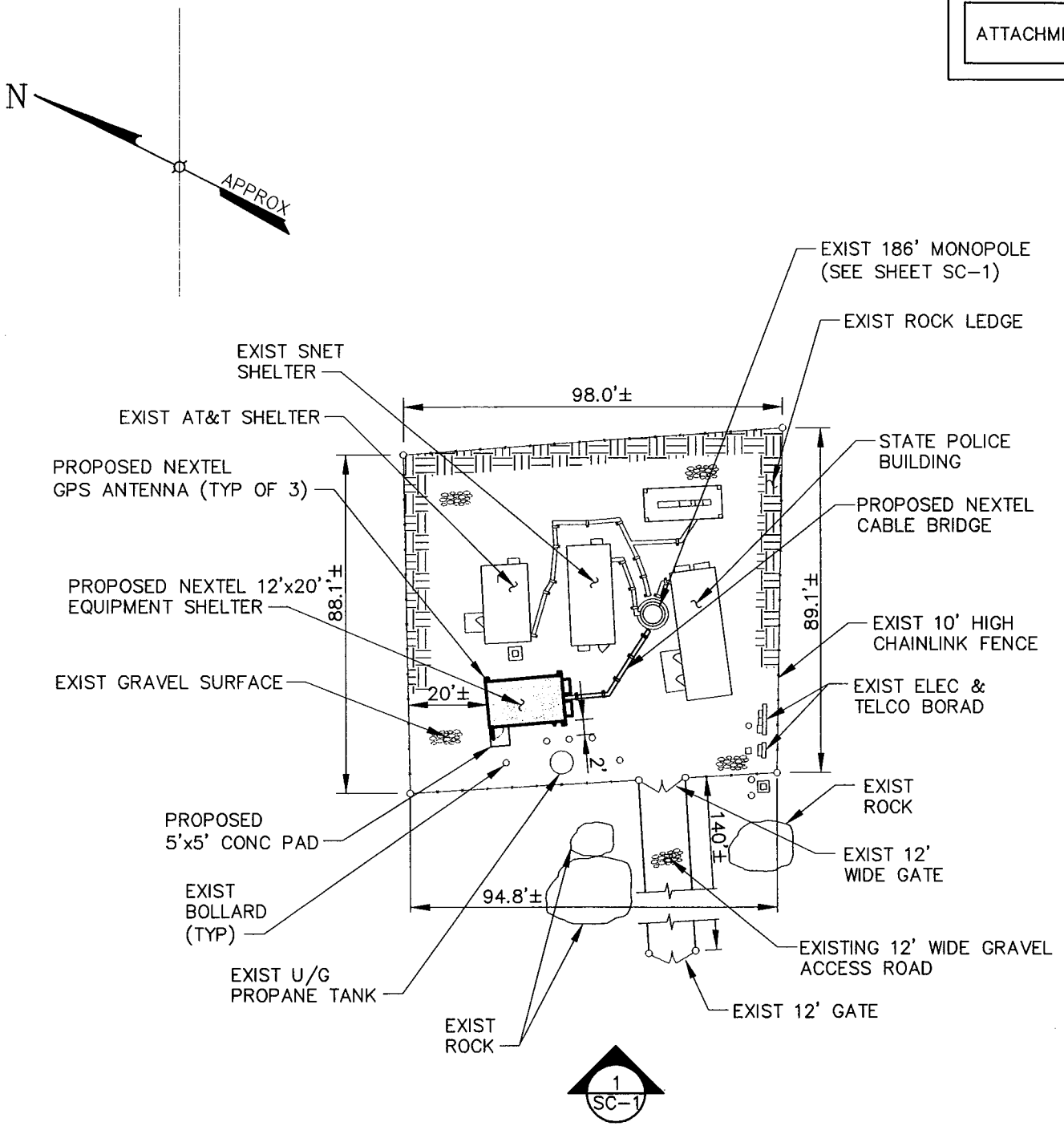
NEXTEL

WINSTED CENTRAL (CT-3655)
OAKDALE AVENUE
WINCHESTER, CT

ISSUED BY: MS	W.O. 2993.3655	10/17/01	SITING COUNCIL	SC-1

ATTACHMENT B

ATTACHMENT B



1
SC-2

SITE DETAIL PLAN

SCALE: 1" = 40'

SHEET 2 OF 2

TECTONIC/KEYES ASSOCIATES

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

NEXTEL

WINSTED CENTRAL (CT-3655)
OAKDALE AVENUE
WINCHESTER, CT

ISSUED BY: MS	W.O. 2993.3655	10/17/01	SITING COUNCIL	SC-2

ATTACHMENT C

SpectraSite

APPROVED

	Pass	Fail
Tower	☑	☐
Foundation	☑	☐
	☐	☐

RH 8/24/01
Initials Date

Mr. **Bill Rushton**
SpectraSite Communications, Inc.
100 Regency Forest, Suite 200
Cary, N.C. 27511

08/23/01
CT-0042
Winchester

Sub: Structural Analysis of 180 ft. EEI Monopole
15 Oakdale Avenue, Winchester, CT 06098

Dear Mr. Rushton:

Walker Engineering has performed a Level Two finite element, P-Δ structural analysis of SpectraSite's above noted monopole in accordance with your Authorization for Services for the addition of the **Verizon Wireless and Nextel** proposed antennas outlined below. This analysis consists of determining the forces on the monopole caused by the existing, proposed, and future loads. The existing, proposed, and future loads were provided by your office.[1]

The subject monopole is a 180 ft, 18-sided, four section, tapered monopole, designed and manufactured by Engineered Endeavors, Inc. in 2000. The monopole manufacturer's drawings, EEI Job No.: 7676, Dated 08/21/00, were provided by your office. The monopole geometry, section sizes and monopole base design loads were obtained from these data and are assumed to be accurate. The monopole has also been assumed to be in good condition and capable of supporting its original full design capacity.

Our analysis was performed in accordance with TIA/EIA-222-**F** for an 80 mph[2] base windload, and 75% of the base windload with ½" radial ice, as specified by SpectraSite.

Existing, future, and proposed loads consists of the following:

at Top — SNET: Two 4ft by 1ft panel antennas (Rad center at 188ft), one Yagi antenna (Rad center at 185ft), two 10ft Omni antennas (Rad center at 188ft), nine 4ft by 0.5ft panel antennas (Rad center at 183ft), two 10ft Omni antennas (Rad center at 175ft) and four 4ft by 1ft panel antennas (Rad center at 178ft) on a top platform mount with all coax cables running inside the monopole.

at 159 ft — Existing: Two 10ft Omni antennas (one upright and one inverted) on one pipe standoff mounts, fed by two 1-5/8"Ø coax cables

[1] Kimley-Horn Report CT-0042, Dated: 12/08/00 and SpectraSite Tower Inventory Sheet CT-0042, Dated: 05/29/01.
[2] The minimum windspeed specified by EIA-222-F for Litchfield County, CT is 80 mph.

running inside the monopole.

at 138 ft **Nextel *(Proposed):*** Twelve Decibel DB844H90E-XY antennas on three T-arm mounts, fed by twelve 1-1/4"∅ coax cables assumed to be placed inside the monopole.

at 125 ft **Verizon *(proposed)*:** Twelve Decibel DB844H80 antennas on three T-arm mounts (copy attached), fed by twelve 1-5/8"∅ coax cables assumed to be placed inside the monopole.

Note: All existing and proposed coax cables are assumed to be running inside the monopole. Please notify the undersigned prior to altering the cable routing configuration. Placement of small cables for beacons, ground rods, etc. are not critical. (See Elevation and Cable Plan Drawing EL-1)

Monopole Summary:

This analysis shows that the subject monopole **is adequate** to support the existing, future, and proposed loads.

A copy of the full analysis is enclosed. A summary of the controlling load cases is provided below:

Monopole Section	Combined Stress Index[3]
132 ft to 180 ft	0.94
88 ft to 132 ft	0.84
43 ft to 88 ft	0.78
0 ft to 43 ft	0.70

Foundation Summary:

The forces at the base of the monopole are less than the original design loads. The existing monopole foundation **is adequate** to support the existing, future, and proposed loads.

Foundation Loads

	Original[4]	Existing/Proposed	% of Design
O.T. Moment	3,377.9 k-ft	2,826.3 k-ft	84 %
Axial Load	34.3 k	30.7 k	90 %
Base Shear	28.4 k	22.6 k	80 %

[3] Ratio of calculated loads verses total allowable loads; should be less than, or equal to, 1.00
[4] Original foundation loads were taken from Engineered Endeavors, Inc., Job No.: 7676, dated 08/21/00.

Other Considerations:

Installation of access ports ("Handholes") for the proposed equipment may be required. The Kimley-Horn report and the monopole drawing do not indicate that access ports are available at the proposed elevation. Walker Engineering can design these access ports (if required) at your request; the design can also be provided by the monopole manufacturer. Use extreme caution during the installation of the access ports to insure temporary bracing of the pole, and prevention of fires inside the pole during cutting and welding operations.

As future loads are installed, the monopole should be re-evaluated on a case-by-case basis.

The analysis is based on information provided to this office by SpectraSite Communications, Inc. If the existing conditions are different than the information in this report, Walker Engineering should be contacted for resolution of any issues.

Walker Engineering, Inc. appreciates the opportunity to be of service in this matter. Please do not hesitate to give me a call if you have any questions or comments.

Very truly yours,

Jim Walker, P.E.
Walker Engineering

STATE OF CONNECTICUT
J. L. WALKER
No. 21197
LICENSED
PROFESSIONAL ENGINEER

encl.

HP Fax Series 900
Plain Paper Fax/Copier

Fax History Report for
NORTHSTAR
8606466846
Jan 09 2002 12:01pm

Last Fax

Date	Time	Type	Identification	Duration	Pages	Result
Jan 9	11:57am	Sent	5135444	4:02	4	OK

Result:
OK - black and white fax

ATTACHMENT D

Winsted, CT (Oakdale Ave.) - CT Siting Council Power Density Calculations

Nextel Directional Antennas ESMR - 851 MHz at centerline 138' AGL

Note: Power densities are in mW/ cm²

Transmitters:	Frequency in MHz	CT Standard mW/ cm²	Number of Channels	ERP (W) per channel	Centerline of Tx antennas AGL (ft.)	Power density calculated at base of tower	% of CT Standard
SCLP	*	0.5867	*	*	180	**0.02271**	**3.87%**
AT&T	*	0.5793	*	*	170	**0.01077**	**1.86%**
State Police	*	0.5773	*	*	160	**0.03034**	**5.26%**
Sprint	*	1.0000	*	*	144	**0.02948**	**2.95%**
Nextel Digital ESMR - Proposed	851	0.5673	24	100	138	**0.045293006**	**7.98%**
Total % of CT Standard							**21.92%**