

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

October 8, 2002

Thomas F. Flynn III
Nextel Communications Inc.
100 Corporate Place
Rocky Hill, CT 06067

RE: **EM-NEXTEL-072-020621** - Nextel Communications Inc. notice of intent to modify an existing telecommunications facility located at 889R Colonel Ledyard Highway, Ledyard, Connecticut.

Dear Mr. Flynn:

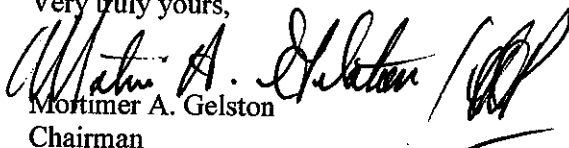
At a public meeting held on October 7, 2002, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notices dated June 21, 2002, and August 13, 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/laf

- c: Honorable Wesley J. Johnson, Sr., Mayor, Town of Ledyard
- Shahista Shaikh, Town Planner, Town of Ledyard
- Red Wolf Broadcasting Corporation
- Julie Donaldson Kohler, Esq., Hurwitz & Sagarin LLC
- Michele G. Briggs, Southwestern Bell Mobile Systems
- Sandy M. Carter, Verizon Wireless
- Stephen M. Howard, Marcus Communications
- Christopher B. Fisher, Esq., Cuddy & Feder & Worby LLP

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

NEXTEL®

August 13, 2002

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

RECEIVED

AUG 13 2002

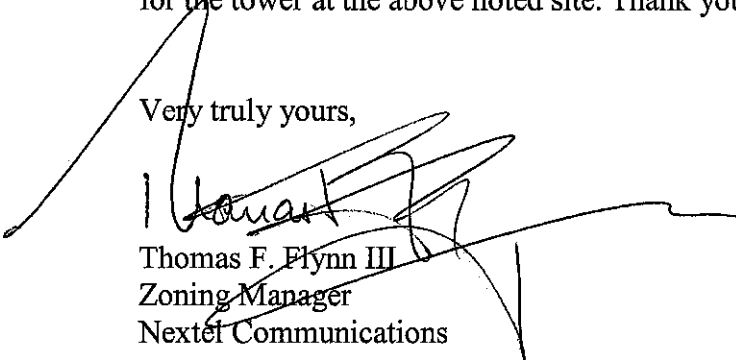
CONNECTICUT
SITING COUNCIL

Re: Exempt Modification
889 Colonel Ledyard Highway
Ledyard, CT.

Dear Mr. Gelston,

Enclosed please find an original and 25 copies of the revised structural analysis for the tower at the above noted site. Thank you for your patience in this matter.

Very truly yours,


Thomas F. Flynn III
Zoning Manager
Nextel Communications

NEXTEL COMMUNICATIONS: LEDYARD**W.O. 3276.0731****EXISTING 347' GUYED TOWER****LEDYARD, CT****STRUCTURAL ANALYSIS REPORT****AUGUST 8, 2002****RECEIVED**

AUG 13 2002

CONNECTICUT
SITING COUNCIL**1.0 INTRODUCTION**

The existing guyed tower, located at 889 Colonel Ledyard Highway in Ledyard, CT, is owned by Red Wolf Broadcasting, and currently serves their FM radio broadcasting needs, as well as Nextel Communications, Sprint PCS, Marcus Communications, and several other carriers. Nextel Communications anticipates upgrading its antenna configuration on this tower in the near future.

Tectonic Engineering & Surveying Consultants, P.C. has performed a structural inspection and analysis of the tower to verify its adequacy for supporting the proposed installation in accordance with current code requirements.

1.1 Information Provided

For the purpose of analysis, Tectonic obtained or was provided with the following information:

1. Section detail drawings by PiRod Inc., dwg. nos. 136034-B (2 pages), 109895, rev. J, 152207, and 152208, dated 11/5/98 thru 5/30/02 (5 pages).
2. "Full Power Radio, Ledyard, CT, #60x347' Guyed Tower (Guy Anchors)", by PiRod Inc., eng. file no. A-20029631, dwg. no. 206289-B, latest rev. A, latest date 4/29/00 (9 pages).
3. "Red Wolf Broadcasting Corp., Ledyard, CT, #60x347' Guyed Tower (Guy Anchors)", by PiRod Inc., eng. file no. A-117547, dwg. no. 206289-B, latest rev. J, latest date 12/4/00 (18 pages).
4. "Design Exhibit", by Maguire Group Inc. for Cingular Wireless, MGI#: 15364, Task #: 1224, dated 12/13/01.
5. Letter from Verizon Wireless to Connecticut Siting Council, subject: "Re: Request by Cellco Partnership d/b/a Verizon Wireless to Approve the Shared Use of a Tower Facility located at 889A Colonel Ledyard Highway, Ledyard, Connecticut", dated 11/10/00 (1 page provided).
6. Structural Review Letter from Paul J. Ford and Company to Carter & Burgess, subject: "Re: Existing 347 ft guyed tower, located in Ledyard, CT, (PJF #36502-2)", including tower elevation view with antenna list, job no. 36502-002, dated 3/15/02.
7. Internal Structural Review Letter, by Maguire Group Inc., subject: "Re: Tower Review, Cingular - Ledyard", dated 3/29/02.
8. Letter from SNET Mobility to Connecticut Siting Council, LLC, subject: "Re: Notice of Exempt Modification - Existing Red Wolf Wireless

Telecommunications Tower Facility, 889R Colonel Ledyard Highway, Ledyard, Connecticut.", dated 4/1/02 (3 pages).

9. Structural Analysis Letter from PiRod Inc. to Nextel Communications, subject: "Re: Model #60x347', Site: Ledyard, CT, PiRod Engineering File 117547", dated 6/19/02 (2 pages).
10. Email from Nextel Communications to Tectonic, subject: "RE: CT-0731, Ledyard", dated 7/15/02.
11. Email exchange between Tectonic and PiRod Inc., subject: "RE: Guyed Tower Analysis", dated 7/19/02 and 7/23/02.
12. Email exchange between Tectonic and ERI Inc., subject: "FM antenna identification", dated 7/31/02.

2.0 STRUCTURE DESCRIPTION

2.1 Tower Structure

The tower is a three-legged, guyed mast that was designed and manufactured by PiRod, Inc. in 2000 and 2001. The tower consists of sixteen (16) 20' long sections, a 10' long section, and a 17' long top section, for a total height of 347'. The tower has a 6' long tapered portion at the base of the bottom section, with a uniform width of 5'-0" from approximately the 6' level to the 330' level, and a uniform width of 2'-6" from the 330' level to the top.

All sections are constructed of solid steel rod leg members and X-bracing. Horizontal members are present at the ends of each section. Additional horizontal members are located between each bay of X-bracing on one face for climbing purposes. X-bracing and horizontal member connections are welded, while the tower section splice connections are bolted. Waveguide brackets are factory-welded between the legs and bracing on all faces.

The tower is supported by a total of fifteen (15) guys at four (4) levels. Single guys are attached to the tower at the 100', 270', and 330' levels, and double guys are attached to torque arms mounted at the 178' level. The guys at the 100', 178', 270', and 330' levels are 7/8", 7/8", 13/16", and 11/16" diameter, respectively. All guys are galvanized 19-wire bridge strand.

A diagram of the tower is presented in Figure 1, attached.

2.2 Loading Criteria

The original design was based on ANSI/TIA/EIA-222-F-1996 with a basic wind speed of 90 mph, and a reduced wind speed of 78 mph in conjunction with 0.5"

radial ice. According to the general notes on the most recent PiRod drawings provided, the tower was designed to support the following loads:

<u>Elevation</u>	<u>Qty</u>	<u>Antenna</u>	<u>Mount(s)</u>	<u>Line (each)</u>
335' to 345'	1	Harris FML-2E w/ Radomes	-----	1-5/8"
325'	1	10' Whip	6' Universal Arm	2-1/4"
300' to 320'	1	3-Bay FM w/ Radome	-----	1-1/4"
280'	6	18' Whips	Three (3) 6' Universal Arms	1-5/8"
215', 235', 250'	12	ALP9212-N Antennas	Three (3) T- Frames	1-5/8"
200'	6	20' Whips	Three (3) 6' Universal Arms	1-5/8"
185', 175', 165', 155', 145'	12	ALP9212-N Antennas	Three (3) T- Frames	1-5/8"
105'	1	6' Grid Dish	-----	1-5/8"

The tower and its foundations were designed for the tower to be extendable to a future total height of 500'.

2.3 Foundation and Guy Anchors

The tower foundation was also designed by PiRod in 2001. According to the PiRod foundation drawings provided, the tower base foundation consists of a 9'-6" square by 2'-6" thick reinforced concrete footing, bearing at a depth of either 4' below grade or 6" below the local frost level. A 3'-6" diameter pier at the center of the footing extends to 6" above grade.

The guys extend to a single common anchor point in each direction. According to the PiRod foundation drawings provided, each anchor rod is embedded in a 4'-6"x4'-6"x20'-6" long concrete anchor block. An additional concrete block, measuring 3'-6"x3'-6"x3'-6", is shown to be cast against the anchor head of two (2) anchors. The guy anchors are 220' radially from the centerline of the tower, forming angles between them of 120°. The design accounted for the elevation difference of each guy anchor with respect to the base of the tower.

Foundation design reactions and geotechnical information was provided in the PiRod drawings.

3.0 EXISTING CONDITION

3.1 Field Inspection

Tectonic Engineering & Surveying Consultants, P.C. performed a detailed inspection of the tower on July 29, 2002 to verify the existing configuration and conditions.

A nameplate near the base of the tower reads:

Manufactured by: PiRod Inc.
06 08 01
Plymouth, Indiana A117547 #60x347

Based on our inspection, the tower legs and bracing all appear to be in good condition. No damage or significant deformation of the tower was observed. Therefore, we expect that the tower mast is capable of supporting its original design loads.

The exposed portion of the tower and guy anchor foundations is in good condition.

All guys were installed with dead end cable grips, and appear to be in good condition. All turnbuckles, equalizer plates and the exposed portion of the anchors were found to be in good condition, with the galvanizing intact. Safety wires are present on all turnbuckles. However, none of the safety wires are properly threaded in accordance with PiRod standard guyed tower construction.

Ground wires are clamped to guys near the anchor points, as well as at the base of the tower.

Guy tensions were estimated in the field. Our measurements indicate that approximately half of the guys are adequately tensioned within the recommended pretension range of 8-15% of their breaking strength, as recommended by TIA/EIA. The remaining guys were found to have less than the minimum recommended pretension.

We note that the member sizes of all installed tower components and the sizes of the exposed portions of the foundations were confirmed to match those listed on the PiRod tower drawings.

The relative elevations and radii of the guy anchors with respect to the tower base were measured to be different than listed on PiRod drawings. The actual guy anchor radius varies from 200' to 250' from the tower centerline. Furthermore, all three (3) guy anchors, instead of two (2) as in the original design, were found to have concrete blocks cast against their anchor heads.

The inspection was limited in the following respects:

1. A detailed inspection of welds, bolts, and appurtenances was not performed.
2. The adequacy of the existing ground system was not assessed.
3. No investigation of the existing soil conditions or foundation system was performed.
4. Grade elevations at each guy anchor were visually estimated.
5. The orientation of the tower with respect to true north was not confirmed.
6. The tower was not measured for plumbness.

3.2 Existing Antennas

For identification purposes, the north leg is designated as leg A, while the southeast and southwest legs are designated as B and C, respectively. The guys are designated the same as the leg to which they are connected.

At the time of our inspection, the tower was found to be supporting the following items:

- 1 Lightning halo at the top of the tower
- 1 Beacon at the top of the tower
- 1 3/4" diameter conduit to the top of the tower on face B-C
- 1 ERI LP-3E 3-bay FM antenna with radome, pipe mounted on leg B between approximately the 330' and 347' levels
- 1 1-5/8" diameter coaxial cable to the 330' level on face A-C
- 1 10' diameter grid dish at the 320' level (centerline), directly mounted to leg A
- 1 1-5/8" diameter coaxial cable to the 320' level on face A-C
- 1 ERI LP-2E 2-bay FM antenna with radome, pipe mounted between the 302' and 320' levels on leg B
- 1 1-1/4" diameter coaxial cable to the 302' level on face A-B
- 1 Celwave PD220 or similar omnidirectional antenna at the 298' level (base of antenna), mounted on a 3' sidearm across face A-B
- 1 2-1/4" diameter coaxial cable to the 298' level on face A-B

- 3 Decibel DB810KE-Y or similar omnidirectional antennas (Marcus Communications) at the 295' level (base of antennas), mounted on two (2) 10' sidearms on faces A-C and B-C
- 3 1-1/4" diameter coaxial cables to the 295' level on face B-C
- 1 Tower-mounted amplifier at the 278' level (base of amplifier), directly mounted to leg A
- 1 1/2" diameter coaxial cable to the 278' level on face B-C
- 1 Tower-mounted amplifier at the 276' level (base of amplifier), directly mounted to leg B
- 1 1/2" diameter coaxial cable to the 276' level on face B-C
- 1 Radiowaves SPD6-5.8 dish antenna with radome at the 275' level (centerline), pipe mounted to leg A
- 1 Radiowaves SP1-5.2NS dish antenna with radome at the 274' level (centerline), directly mounted to leg B
- 3 Decibel DB810KE-XT omnidirectional antennas (Nextel Communications) at the 233' level (base of antenna), mounted on three (3) 2' sidearms, one (1) per leg
- 3 1-5/8" diameter coaxial cables to the 233' level on face B-C
- 6 Decibel DB980H90 panel antennas (Sprint PCS) at the 225' level (centerline), pipe mounted two (2) per sector on three (3) 10' wide frames, one (1) per leg
- 6 1-5/8" diameter coaxial cables to the 225' level on face A-C
- 1 Celwave PD1142 or similar omnidirectional antenna at the 210' level (base of antenna), mounted to a 4' sidearm on leg C
- 1 1-5/8" diameter coaxial cable to the 210' level on face A-C
- 1 Celwave PD1142 or similar omnidirectional antenna at the 207' level (base of antenna), mounted to a 4' sidearm on face A-C
- 1 1-5/8" diameter coaxial cable to the 207' level on face A-C
- 1 Celwave PD1150 or similar omnidirectional antenna at the 205' level (base of antenna), mounted to a 4' sidearm on leg A
- 1 1-5/8" diameter coaxial cable to the 205' level on face A-C
- 3 Lightning dissipaters at the 181' level (centerline), directly mounted to each leg
- 2 Obstruction lights at the 170' level (base of light), mounted to the tower across face A-B
- 1 6' diameter grid dish at the 130' level (centerline), directly mounted to leg B
- 1 1-5/8" diameter coaxial cable to the 130' level on face A-C
- 1 Scala PR-850 or similar grid dish antenna at the 89' level (centerline), pipe mounted to leg B
- 1 7/8" diameter coaxial cable to the 89' level on face A-B
- 1 ERI 1105-3A 3-bay FM antenna with radome, pipe mounted between the 55' and 80' levels on leg B
- 1 1-1/4" diameter coaxial cable to the 55' level on face A-B

- Safety cable from the base to the top of the tower on face A-C

4.0 PROPOSED INSTALLATIONS

It is our understanding that the existing Nextel antennas and mounts will be removed, but all other existing antennas will remain. Nextel proposes to add the following items to the tower:

- 12 Decibel DB844H90 panel antennas at the 235' level (centerline), pipe mounted four (4) per sector on three (3) 12' wide T-frames
- 12 1-5/8" diameter coaxial cables to the 235' level, mounted in snap-in hangers to the existing waveguide brackets

We further understand that the following installations are proposed to be added to the tower in the near future:

Sprint PCS

- 3 Additional Decibel DB980H90 panel antennas at the 225' level (centerline), pipe mounted one (1) per sector on the existing frames
- 3 Additional 1-5/8" diameter coaxial cables to the 225' level, mounted in snap-in hangers to the existing waveguide brackets

Cingular Wireless

- 12 CSS DUO1417-8670 panel antennas at the 200' level (centerline), pipe mounted four (4) per sector on three (3) 12' wide T-frames
- 6 Tower-mounted amplifiers, mounted to the same T-frames
- 1 9" long omnidirectional antenna, mounted to one of the T-frames
- 12 1-5/8" diameter coaxial cables to the 200' level, mounted in snap-in hangers to the existing waveguide brackets
- 1 1/2" diameter coaxial cable to the 200' level, mounted in snap-in hangers to the existing waveguide brackets

Verizon Wireless

- 12 Decibel DB844H90 panel antennas at the 175' level (centerline), pipe mounted four (4) per sector on three (3) 12' wide T-frames
- 12 1-5/8" diameter coaxial cables to the 175' level, mounted in snap-in hangers to the existing waveguide brackets

We note that the lower attachment of the existing torque arms is at approximately the 175' level, which may interfere with this proposed antenna centerline.

5.0 STRUCTURAL ANALYSIS

5.1 Loading Criteria

In accordance with the provisions of ANSI/TIA/EIA-222-F-1996 "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures", a basic wind speed of 85 mph applies to New London County, CT, where the tower is located. This is the same wind speed required by the 1999 Connecticut supplement to the BOCA National Building Code / 1996 for the Town of Ledyard. Therefore, the 85 mph wind speed was used in our analysis.

Ice loads have been established based on a 0.5" radial ice thickness in accordance with industry standard practice. A reduced wind speed of 74 mph is used in conjunction with this ice load.

5.2 Procedure

The tower has been analyzed with PLS-Tower, a specialized three-dimensional structural analysis program. Guy tension forces accounted for pretensioning, wind, and ice loading. Six (6) directions of wind incidence were considered, namely parallel to a guy, parallel to a tower face, and perpendicular to a tower face.

The analysis included the tower with the existing appurtenances, the proposed Nextel antennas, future Sprint, Cingular, and Verizon antennas and all related cables, using current loading criteria with:

- a) a wind speed of 85 mph and no ice
- b) a wind speed of 74 mph in conjunction with 0.5" ice

5.3 Assumptions

Several assumptions were made in order to perform the analysis. Each of these is considered by Tectonic to be both reasonable and consistent with current standards of practice.

1. The tower and guy anchor foundations are constructed in accordance with the PiRod drawings provided.

2. The connection of the tower to its foundation is assumed to be pinned.
3. Guy pretension is assumed to be equal to 10% of the breaking strength.
4. Wind loads are based on the full projected area of all antennas and mounts in all loading conditions.

5.4 Results

The tower member forces have been calculated and the member capacities have been determined. The results of the analysis are as follows:

- The critical leg member is stressed to 65% of its capacity.
- The critical bracing member is stressed to 65% of its capacity.
- The critical guy is stressed to 83% of its capacity (with safety factor = 2.0 as per TIA/EIA-222-F requirements).

The foundation reactions from the analysis are summarized as follows:

Tower Base			
	Orig	Current	%
Max Compression (kips)	381.9	260.4	68
Max. Shear (kips)	11.9	6.0	50

Guy Anchors									
	A			B			C		
	Orig	Current	%	Orig	Current	%	Orig	Current	%
Uplift (kips)	99.6	90.3	91	118.9	88.2	74	107.2	103.8	97
Shear (kips)	127.6	107.5	84	125.1	105.9	85	126.3	107.6	85

We note that the relatively high reactions at the guy anchors are primarily due to the differences in the elevations and radii between the PiRod design and the as-built anchors.

6.0 CONCLUSIONS AND RECOMMENDATIONS

As a result of our analysis, we find that the existing tower and its foundation have sufficient capacity to permit the installation of the proposed antennas and cables. No structural problems for the tower are anticipated, and no modifications are necessary.

Whether or not Nextel proceeds with their proposed upgraded installation, we recommend the following:

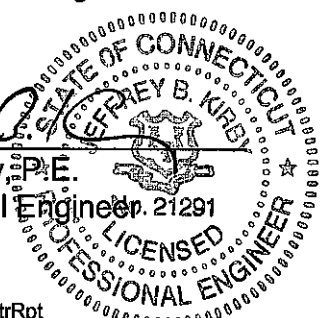
1. The guys should properly retensioned to 10% of their breaking strength with a 1% tolerance, in accordance with TIA/EIA requirements.
2. The safety wires should be properly rethreaded at each anchor point, in accordance with the manufacturer's specifications.
3. The grounding system should be checked and upgraded as necessary.

Any further changes to the proposed antenna configuration should be reviewed with respect to their effect on structural loads prior to implementation.

Prepared by: Richard J. Dyer, E.I.T.
Staff Structural Engineer

Reviewed by: Colin G. Kelley
Colin G. Kelley, P.E.
Senior Structural Engineer

Approved by: Jeffrey B. Kirby
 Jeffrey B. Kirby, P.E.
 Chief Structural Engineer



Date: 8/8/02

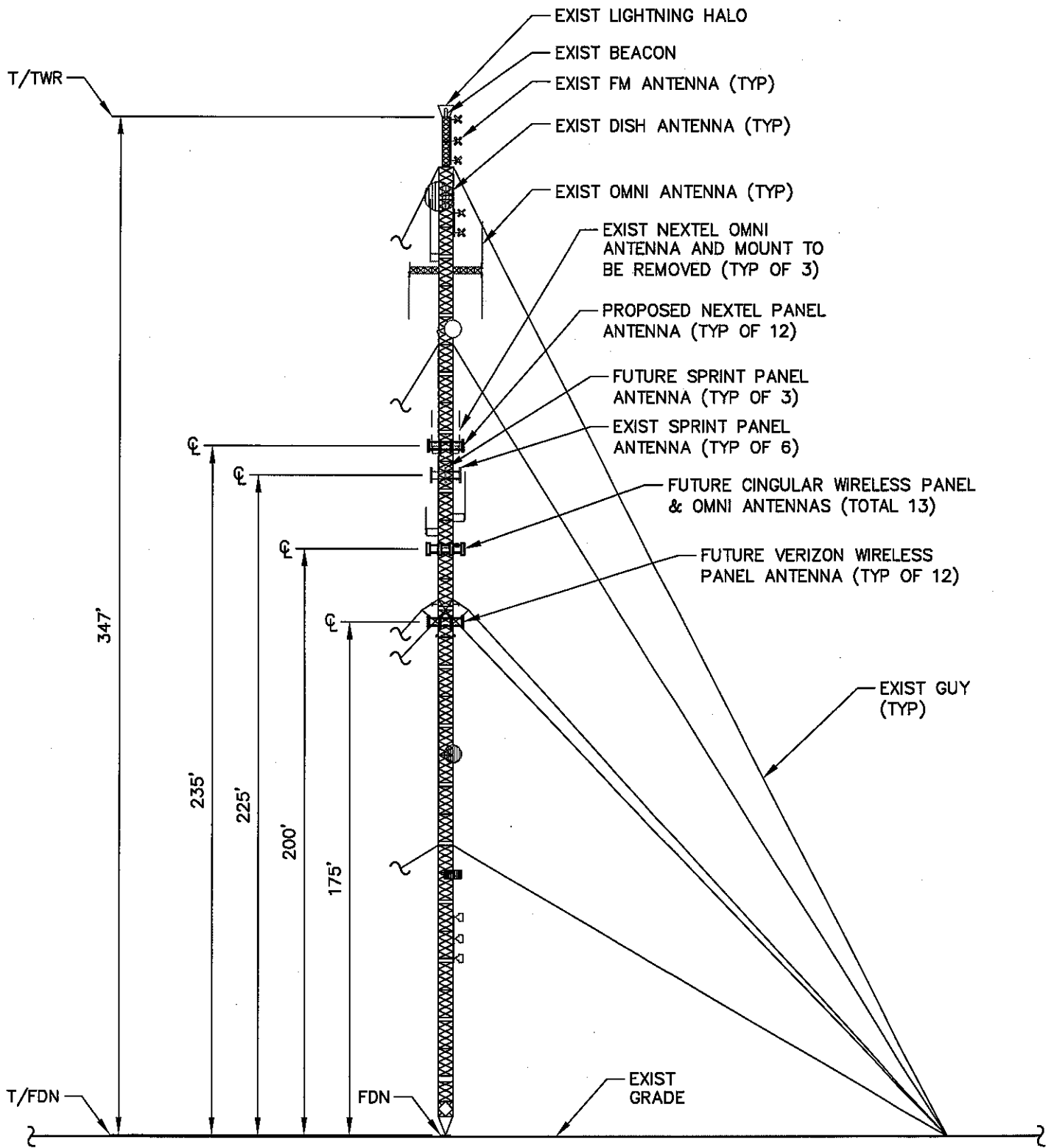


FIGURE 1



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

June 24, 2002

Honorable Wesley J. Johnson, Sr.
Mayor
Town of Ledyard
Town Hall
741 Col. Ledyard Highway
Ledyard, CT 06339

RE: **EM-NEXTEL-072-020621** - Nextel Communications Inc. notice of intent to modify an existing telecommunications facility located at 889R Colonel Ledyard Highway, Ledyard, Connecticut.

Dear Mr. Johnson:

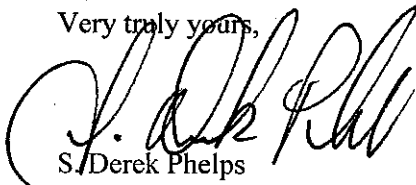
The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for July 11, 2002, at 1:30 p.m. in Hearing Room One, 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: Shahista Shaikh, Town Planner, Town of Ledyard

NEXTEL®

RECEIVED

JUN 21 2002

CONNECTICUT
SITING COUNCIL

June 21, 2002

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

Dear Chairman Gelston:

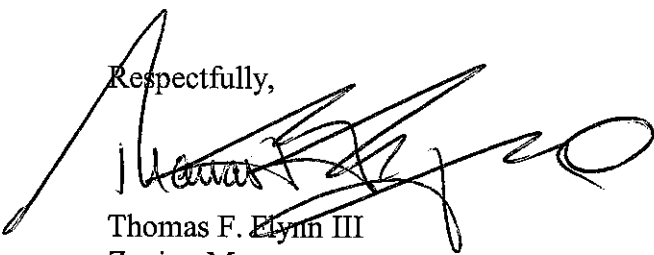
Please find enclosed and respectfully submitted, a request from Nextel Communications Inc. ("Nextel") to Modify an Exempt Tower and Associated Equipment at an existing telecommunications facility located at 889R Colonel Ledyard Highway, Ledyard, Connecticut. This facility is located on property owned by Red Wolf Broadcasting Corporation and is currently used by several telecommunication carrier 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,



Thomas F. Elynn III
Zoning Manager
Nextel Communications Inc.

Enclosure

Cc: Honorable W. A. Johnson Sr.

**EXEMPT MODIFICATION
889R COLONEL LEDYARD HIGHWAY
LEDYARD, 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 889R Colonel Ledyard Highway in Ledyard, Connecticut.

BACKGROUND

This existing facility, located at 889R Colonel Ledyard Highway, Ledyard, Connecticut consists of a 347-foot tall guyed lattice structure that is owned by Red Wolf Broadcasting Corporation. The tower is currently used by several wireless telecommunication carriers to provide wireless service coverage to this section of Ledyard and along Routes 32, 214 and 52.

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 90-foot level of the tower (see Attachment A) and place a 12-foot by 20-foot equipment shelter inside the southwestern 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).

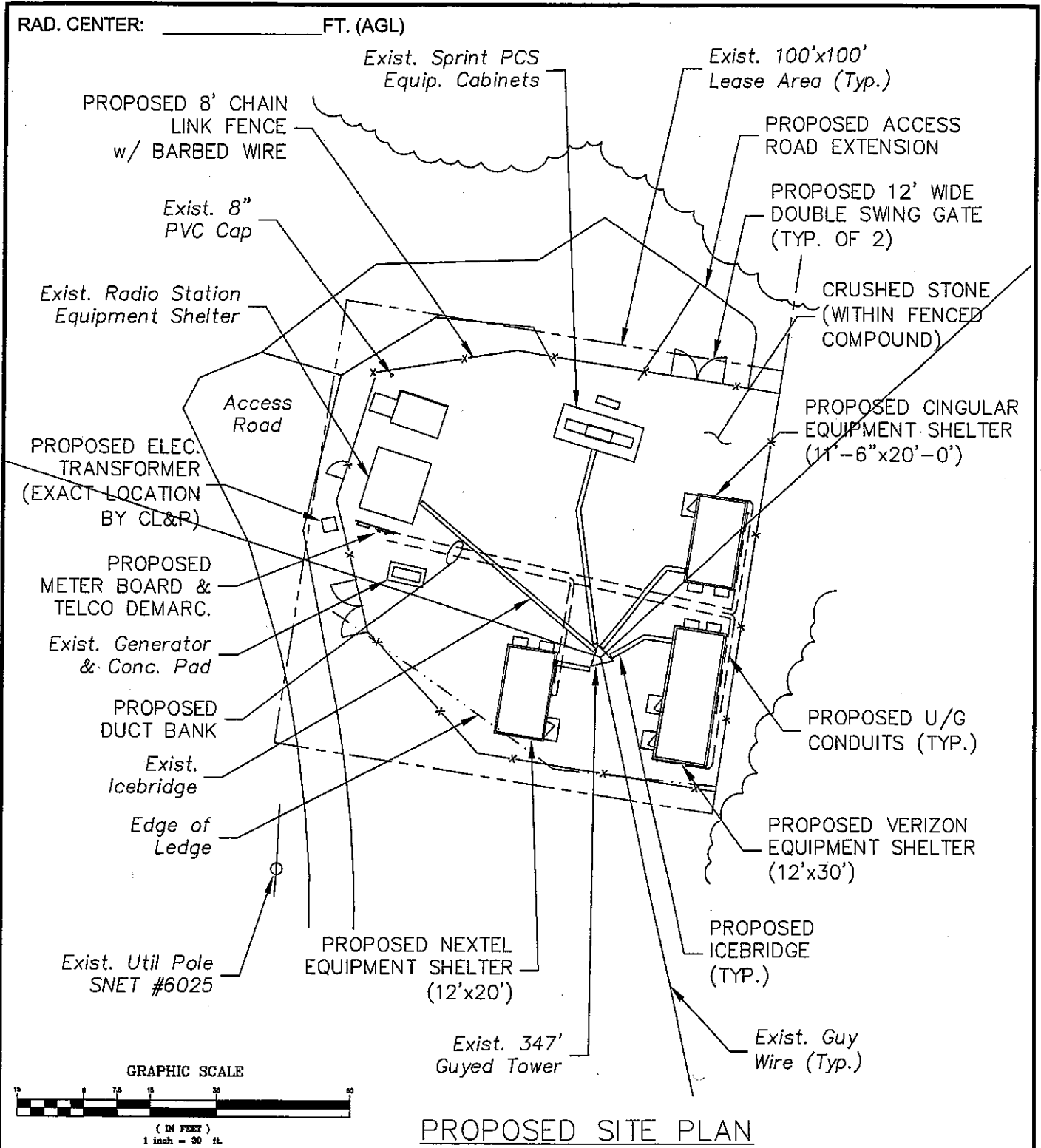
POWER DENSITY INFORMATION

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 wireless carriers and proposed Nextel antennas reach just 17.78 % 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.

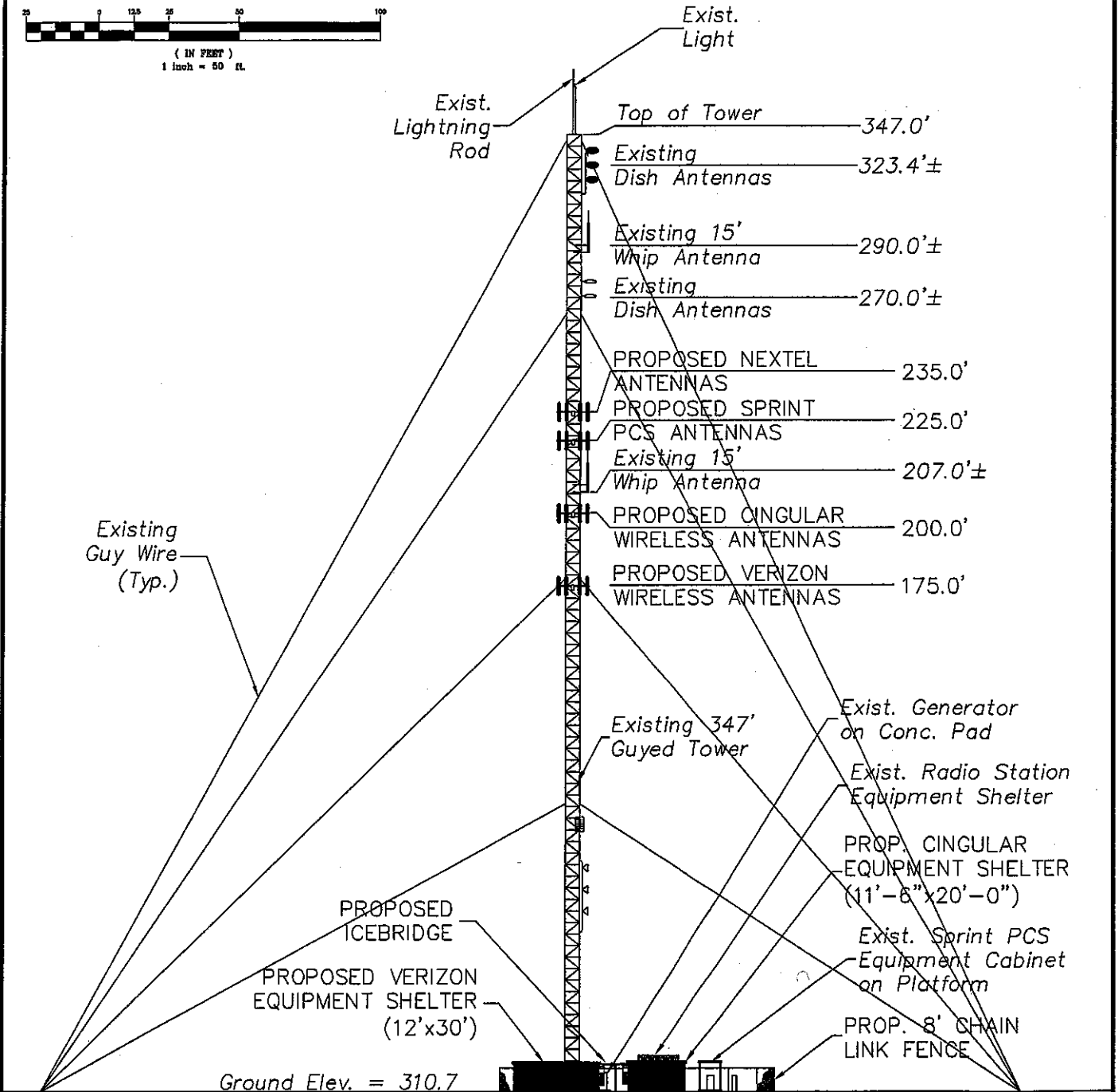
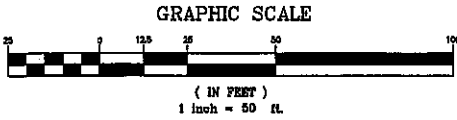


PROPOSED SITE PLAN

<h1>DESIGN EXHIBIT</h1>	NORTH 	SITE NAME: RED WOLF FM ANTENNA		MGI #: 15364
	ADDRESS: 889R COLONEL LEDYARD HIGHWAY LEDYARD, CT 06339		TASK #: 1224	
DRAWN: JCJ CHECKED: GMP SCALE: AS NOTED		DATE: 12/13/01		
Maguire Group Inc. Architects Engineers Planners One Court Street New Britain, Connecticut 06051	THIS DRAWING AND ALL DATA CONTAINED HEREIN IS FOR INFORMATIONAL PURPOSES ONLY. NOT INTENDED FOR DESIGN OR CONSTRUCTION USE. ALL DATA SHOULD BE VERIFIED			

- ATTACHMENT B

RAD. CENTER: 200± FT. (AGL)



WEST ELEVATION

DESIGN EXHIBIT	NORTH	SITE NAME: RED WOLF FM ANTENNA		MGI #: 15364
		ADDRESS: 889R COLONEL LEDYARD HIGHWAY LEDYARD, CT 06339		TASK #: 1224
		DRAWN: JCJ	CHECKED: GMP	SCALE: AS NOTED
		THIS DRAWING AND ALL DATA CONTAINED HEREIN IS FOR INFORMATIONAL PURPOSES ONLY. NOT INTENDED FOR DESIGN OR CONSTRUCTION USE. ALL DATA SHOULD BE VERIFIED		DATE: 12/13/01
MAGUIRE GROUP	Maguire Group Inc. Architects Engineers Planners One Court Street New Britain, Connecticut 06051			x cingular WIRELESS



PIROD INC.

A Valmont Industries Company

June 19, 2002

1545 PIDCO DRIVE, P.O. BOX 128
PLYMOUTH, INDIANA 46563-0128
(574) 936-4221

SALES FAX: (574) 936-6796
ENG. FAX: (574) 935-4873
ACCOUNTING FAX: (574) 936-4716
PURCHASING FAX: (574) 936-6358

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

Re: Model: #60 x 347'
Site: Ledyard, CT
PiRod Engineering File 117547

Dear Mr. Peaston:

Per your request PiRod has structurally analyzed the above referenced tower for a proposed change in antenna loading. We have found that the tower will support the following antenna loading in accordance with the TIA/EIA-222-F Standard with 1) a 90 mph basic wind speed and no ice and 2) a 90 mph basic wind speed and 1/2" ice with a 25% wind load reduction (as allowed by the standard).

HEIGHT (FT)	ANTENNAS		ASSUMED CAAC (SQ.FT.)	MOUNTS		LINES	
	QTY.	MODEL		QTY.	MODEL	QTY.	SIZE
Top	1	Beacon				1	1" conduit
335'- 345'	1	2-Bay FM Antenna ERI LPX-2C with Radome				1	1-5/8"
325'	1	10' Whip Antenna	3.0	1	6' Universal Side Arm	1	2-1/4"
300'- 320'	1	3-Bay FM Antenna	37.8			1	1-1/4"
280'	6	18' Whip Antenna	5.4	3	6' Universal Side Arm	6	1-5/8"
250'	12	Swedcom ALP9212		3	15' T-Frame	12	1-5/8"
235'	12	Decibel DB844		3	15' T-Frame	12	1-5/8"
215'	12	Swedcom ALP9212		3	15' T-Frame	12	1-5/8"
200'	6	20' Whip Antenna	5.4	3	6' Universal Side Arm	6	1-5/8"
185'	12	Swedcom ALP9212		3	15' T-Frame	12	1-5/8"
175'	12	Swedcom ALP9212		3	15' T-Frame	12	1-5/8"
165'	12	Swedcom ALP9212		3	15' T-Frame	12	1-5/8"
155'	12	Swedcom ALP9212		3	15' T-Frame	12	1-5/8"
145'	12	Swedcom ALP9212		3	15' T-Frame	12	1-5/8"
105'	1	6' Grid Dish		1	Pipe Mount	1	1-5/8"

ATTACHMENT C

Our conclusion is based on the tower and foundation being installed per the original design specifications (drawing 206289-B, revision J, dated 12/04/2000) and being in good working condition. We have not confirmed the actual placement of the antennas. Similarly, we have not confirmed the condition of the tower. The conclusion stated above is a theoretical assessment of the structure and does not constitute a condition assessment of the structure and the supporting foundation.

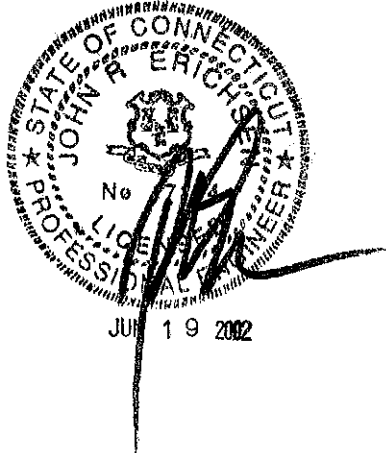
Please contact me with any questions or concerns by phone at 574-936-4221 ext. 5257 or by e-mail at dabel@pirod.com.

Sincerely,



Dennis D. Abel, P.E.
Manager of Reanalysis Services

John R. Erichsen, P.E., S.E.
Vice President of Technology
Connecticut Professional Engineer #17134



ATTACHMENT D

Ledyard, CT (Colonel Ledyard Highway) - CT Siting Council Power Density Calculations

Nextel Directional Antennas ESMR - 851 MHz at centerline 235' AGL											
Transmitters:	Frequency In MHz	CT Standard mW/cm ²	Number of Channels	ERP (W) per channel	Centerline of Tx antennas AGL (ft.)	Power density calculated at base of tower	% of CT Standard				
Red Wolf	106	0.2000	1	3100	320	0.010880273	5.4401%				
Marcus	450	0.3000	10	100	286	0.004393858	1.4646%				
Marcus	5800	1.0000	2	0.1	270	9.86008E-07	0.0001%				
Nextel Digital ESMR - Proposed											
	851	0.5673	9	100	235	0.00585713	1.03%				
Sprint	1962	1.0000	11	133	225	0.010386216	1.0386%				
Arch	454	0.3027	1	300	207	0.002516278	0.8314%				
Cingular	880	0.5867	16	100	200	0.014376	2.4505%				
Cingular	880	0.5867	2	296	200	0.00531912	0.9067%				
Cingular	1930	1.0000	2	427	200	0.00767319	0.7673%				
Verizon	870	0.5800	19	100	175	0.022297469	3.8444%				
Total % of CT Standard											
							17.78%				

Note: Power densities are in mW/cm²