



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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

September 3, 1999

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

RE: TS-NEXTEL-054-990805 - Nextel Communications request for an order to approve tower sharing at a telecommunications tower to be replaced at the St. Paul's Roman Catholic Church on 2577 Main Street in Glastonbury, Connecticut.

Dear Mr. Clark:

At a public meeting held August 31, 1999, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures.

This facility has been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequency now used on this tower. 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 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.

This decision applies only to this request for tower sharing and is not applicable to any other request or construction.

The proposed shared use is to be implemented as specified in your letter dated August 4, 1999 and received by the Council on August 5, 1999. Please notify the Council when all work is complete.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Mortimer A. Gelston'.

Mortimer A. Gelston
Chairman

MAG/RKE/sll

cc: Richard J. Johnson, Town Manager, Town of Glastonbury



STATE OF CONNECTICUT
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Ten Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
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September 29, 1999

Ed Pietycha
Building Official
Zoning Officer
Town of Glastonbury
2155 Main Street
Glastonbury, CT 06033
F: 860-652-7523

RE: TS-NEXTEL-054-990805 - Nextel Communications request for an order to approve tower sharing at a telecommunications tower to be replaced at the St. Paul's Roman Catholic Church on 2577 Main Street in Glastonbury, Connecticut.

Dear Mr. Peitycha:

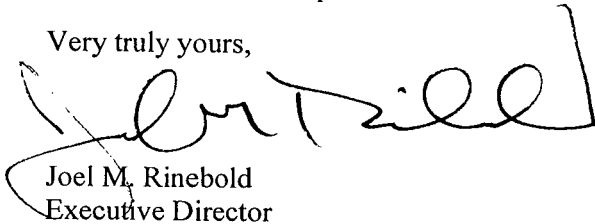
In response to your inquiry regarding the replacement of this proposed tower at 2577 Main Street in Glastonbury, on August 31, 1999, the Connecticut Siting Council (Council) ruled that the replacement of this tower is consistent with the provisions of 16-50aa, as a request applicable to tower sharing that is technically, legally, environmentally and economically feasible and meets public safety concerns.

Please note that this proposal involves the replacement of a four-legged lattice structure 130-feet high that measures approximately 6.5 feet in width (leg-to-leg) at the base and tapers to approximately 1.5 feet in width at the top of the tower. The replacement tower will be a 130-foot high, three-legged tower that will measure 7.5 feet in width (leg-to-leg) at the base and taper to 2.5 feet in width at the top of the tower. A 10-foot by 20-foot pre-fabricated equipment shelter will be placed at the base of the tower. This proposal will enable Nextel to install its antennas at a site that now contains an existing telecommunications tower. This proposal has been determined by the Council to be consistent with the provisions of tower sharing as provided by General Statutes § 16-50aa.

For your information I am providing you with a copy of the proposal filed by Nextel and the Council's decision letter dated September 3, 1999.

Please call me if you have any questions regarding the Council's jurisdiction, the provisions of this decision, or concerns that you may have for the replacement of this tower. Thank you for your attention, consideration, and cooperation.

Very truly yours,



Joel M. Rinebold
Executive Director

Enclosures (2)

c: Mark F. Kohler, Assistant Attorney General
Kenith Leslie, Town Planner/Director of Community Development

Ronald C. Clark
Manager Real Estate Operations

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

NEXTEL

August 4, 1999

RECEIVED

AUG - 5 1999

CONNECTICUT
SITING COUNCIL

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

Dear Chairman Gelston:

Pursuant to Connecticut General Statutes ("C.G.S.") § 16-50-aa, Nextel Communications, Inc. ("Nextel") respectfully requests to install communications antennas at the site of an existing telecommunications tower located at 2577 Main Street in Glastonbury, Connecticut. Nextel plans to replace the existing free-standing lattice tower with a stronger lattice tower of the same height and place a pre-fabricated equipment shelter at the tower base. The existing facility is owned by and is located on the grounds of St. Paul's Roman Catholic Church. The tower does not host a telecommunications tenant at the present time.

Nextel respectfully asks that the Council find the proposed shared use of the facility satisfies the criteria stated in C.G.S. § 16-50-aa and issue an order approving the shared use of this facility.

Sincerely,

Ronald C. Clark
Manager Real Estate Operations

CC: Mr. Richard J. Johnson, Town Manager
Town of Glastonbury

Reverend Randall Blackhall
St. Paul's Church of Glastonbury

TOWER SHARING

2577 MAIN STREET

GLASTONBURY, CONNECTICUT

BACKGROUND

Nextel Communications, Inc. is licensed by the Federal Communications Commission (FCC) to provide wireless communication services in the State of Connecticut, including the Town of Glastonbury.

Nextel proposes to mount antennas on, and related equipment at, the site of a 130-foot tall free-standing lattice tower erected to replace an older 130-foot tower of similar design. The facility is located on the grounds of St. Paul's Roman Catholic Church, at 2577 Main St. in Glastonbury. At present there are no tenants using the facility. The existing tower is a 4-legged structure that measures approximately 6½-feet in width (leg-to-leg) at the base and tapers to approximately 1½-feet in width at the top.

If this request is approved by the Siting Council, Nextel will be able to provide wireless system coverage to this section of Glastonbury without the need to construct an additional telecommunications tower in the general area.

NEXTEL INSTALLATION

Nextel proposes to install a 130-foot tall, 3-legged replacement tower and place twelve (12) ALP Model 9212 panel antennas center mounted at the 128-foot level of the structure. Two GPS receive-only antennas will be installed at the 90-foot level (See Attachment A). The new tower will measure 7½-feet in width (leg-to-leg) at the base and taper to 2½-feet in width at the top. A 10-foot by 20-foot pre-fabricated equipment shelter would be set at the base of the tower and a 10-foot wide gravel driveway will be established to improve access to the facility (See Attachment B).

POWER DENSITY INFORMATION

The operation of Nextel's antennas will not operate at a radio frequency electromagnetic power density level measured at the base of the tower to a point at, or even near, the State and Federal Standard. "Worst case" calculations for a point at the tower base indicates that Nextel's antennas will operate at a level of 0.56733 mW/cm², or 3.4799% of the appropriate State/Federal Standard (see attachment C).

OTHER RELEVANT INFORMATION

C.G.S. § 16-50-aa provides that, upon written request for approval of a proposed shared use, “if the Council finds that the proposed shared use of the facility is technically, legally, environmentally and economically feasible and meets public safety concerns, the Council shall issue an order approving such shared use.” (C.G.S. § 16-50-aa(c)(1).) The shared use of the tower satisfies the criteria stated in C.G.S. § 16-50-aa as follows:

- **Technical Feasibility.** The replacement tower is designed and engineered to accommodate Nextel’s antennas and associated tower-mounted equipment. The proposed use of the tower is therefore technically feasible.
- **Legal Feasibility.** Under C.G.S. § 16-50-aa, the Council has been authorized to issue an order approving the proposed-shared use of an existing tower facility. (C.G.S. § 16-50-aa(c)(1).) This authority complements the Council’s prior-existing authority under C.G.S. § 16-50p to issue orders approving the construction of new towers that are subject to the Council’s jurisdiction. C.G.S. § 16-50x(a) directs the Council to “give such consideration to other state laws and municipal regulations as it shall deem appropriate” on ruling of requests for the shared use of existing tower facilities. Under the authority vested in the Council by C.G.S. § 16-50-aa, an order by the Council approving the shared use would permit the Nextel to obtain a building permit for the proposed installation.
- **Environmental Feasibility.** The proposed shared use of this facility would have a minimal environmental effect, for the following reasons:
 1. The installation would have an insignificant incremental visual impact and would not cause any significant change or alteration in the physical or environmental characteristics in or around the area.
 2. The installation would not increase the noise levels at the existing facility by six decibels or more.
 3. The operation of the proposed Nextel antennas would not exceed the total radio frequency electromagnetic radiation power density level standard adopted by the State of Connecticut and the Federal Government. The “worst-case” exposure levels have been calculated for ground level and the power density level at the tower base is only 3.4799% of the standard for an uncontrolled environment. As such, the facility would be operated in full and complete compliance with the Federal Telecommunications Act of 1996.
 4. The installation would not require any water or sanitary facilities, or generate air emissions or discharges to water bodies. After construction is completed (approximately four weeks from start-to-finish), the installation would not

generate any traffic other than from periodic maintenance visits by a service technician.

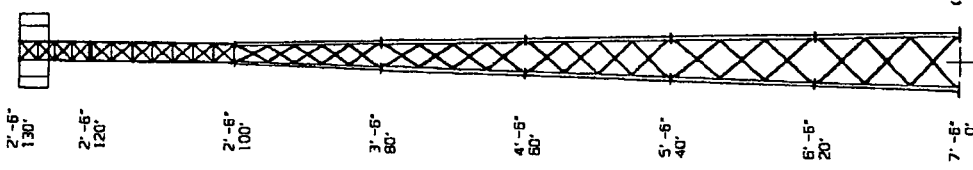
The proposed use of the facility would therefore have a minimal environment effect, and is environmentally feasible.

- **Economic Feasibility.** Nextel has entered into an agreement with St. Paul's Roman Catholic Church of Glastonbury to make use of the facility on mutually acceptable terms. The proposed use is therefore economically feasible.
- **Public Safety Concerns.** As stated previously, the new tower will be designed and engineered to support Nextel's antennas and radio frequency emissions will fall well below State/Federal Standards. Nextel is not aware of any other public safety issue(s) relative to the use of this facility. In reality, the provision of additional wireless system coverage can be expected to enhance the safety and security of local residents as well as those traveling through the area. The simple fact that *more than one-half million* wireless 911 calls were made in Connecticut during 1998, clearly illustrates the positive impact wireless communications has had on public safety. The benefits of wireless service are further illustrated by the decision of many law enforcement agencies here in Connecticut, and in other parts of the country, to provide mobile phones to local resident groups, civic organizations, etc., to improve, expand and enhance emergency communications capabilities. The proposed use of this facility can likewise contribute to the public's safety and security in the Town of Glastonbury.

CONCLUSION

For the reasons discussed, the proposed shared use of this tower facility satisfies the criteria stated in C.G.S. § 16-50-aa, and advances the Connecticut General Assembly's and the Siting Council's objective of preventing the proliferation of towers in the State. Nextel therefore respectfully requests the Siting Council to issue an order approving the shared use of this facility by Nextel.

Section #	Legs	Diagonals	Horizontals	Bracing Bolts
1	6" SCH. 80	L 1.75x1.75x3/16	L 2x2x3/16	(1) 1/2"
2	6" SCH. 40	L 1.5x1.5x3/16	L 1.25x1.25x3/16	
3	6" SCH. 40	L 1.5x1.5x3/16	L 1.25x1.25x3/16	
4	4" SCH. 40	L 1.5x1.5x3/16	L 1.25x1.25x3/16	
5	4" SCH. 40	L 1.5x1.5x3/16	L 1.25x1.25x3/16	
6	2 RCD	L 1.25x1.25x3/16	L 1.25x1.25x3/16	
7	1.5 RCD	L 1.25x1.25x3/16	L 1.25x1.25x3/16	



TOWER DESIGN CONDITIONS
 This tower was designed to resist 85 mph wind speed with 1/2" radial ice per ANSI/EIA/TIA-222-F recommended standard. Worst case load condition is wind with ice with load reduction. Allowable steel stresses per AISC ASD 9th Edition. Allowable concrete stresses per ACI 318-88.

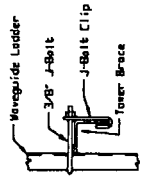
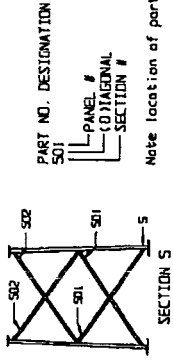
MATERIAL SPECIFICATIONS
 Tower Legs: ASTM A500-C, Fy > 54 ksi. See Section Schedule
 All other Steel: ASTM A36, Fy > 36 ksi
 Hardware: ASTM A325 Hot Dipped Galvanized Bolts with Anco Nuts.
 Galvanizing: ASTM A123
 Anchor Bolts: ASTM A36, Fu > 85 ksi

TOWER LOADING CONDITIONS

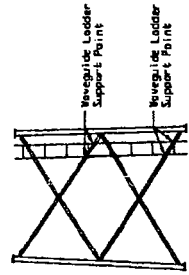
QTY	Antenna	Elevation	Windload	Deadload
12	12' 2x12	130	122	27
12	12' Cellular Boom	130	265	170
12	12' 2x12	120	119	27
3	12' Cellular Boom	120	259	170

Elevation	Start	Stop	Windload	Deadload
130	10	120	4.9	1.9
120	10	120	3.2	1.9

NOTE: Any deviation from the proposed design antenna loading will require a tower analysis for verification of structural integrity.

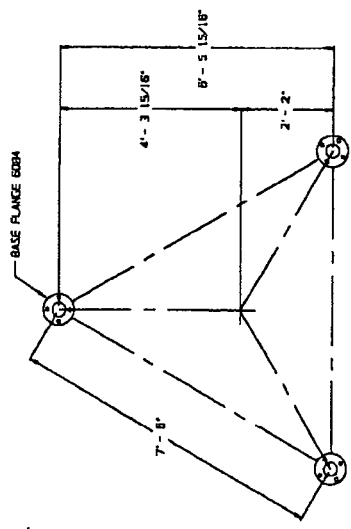


WAVEGUIDE LADDER CONNECTION



(4) 1 1/2x48 A36-mod ANCHOR BOLTS

APPROX. TOWER SECTION WEIGHTS (lb):
 Section 7 : 502 +/-
 Section 6 : 916 +/-
 Section 5 : 1199 +/-
 Section 4 : 1832 +/-
 Section 3 : 1661 +/-
 Section 2 : 2388 +/-
 Section 1 : 2436 +/-
 Total Tower Weight: 10637 +/-

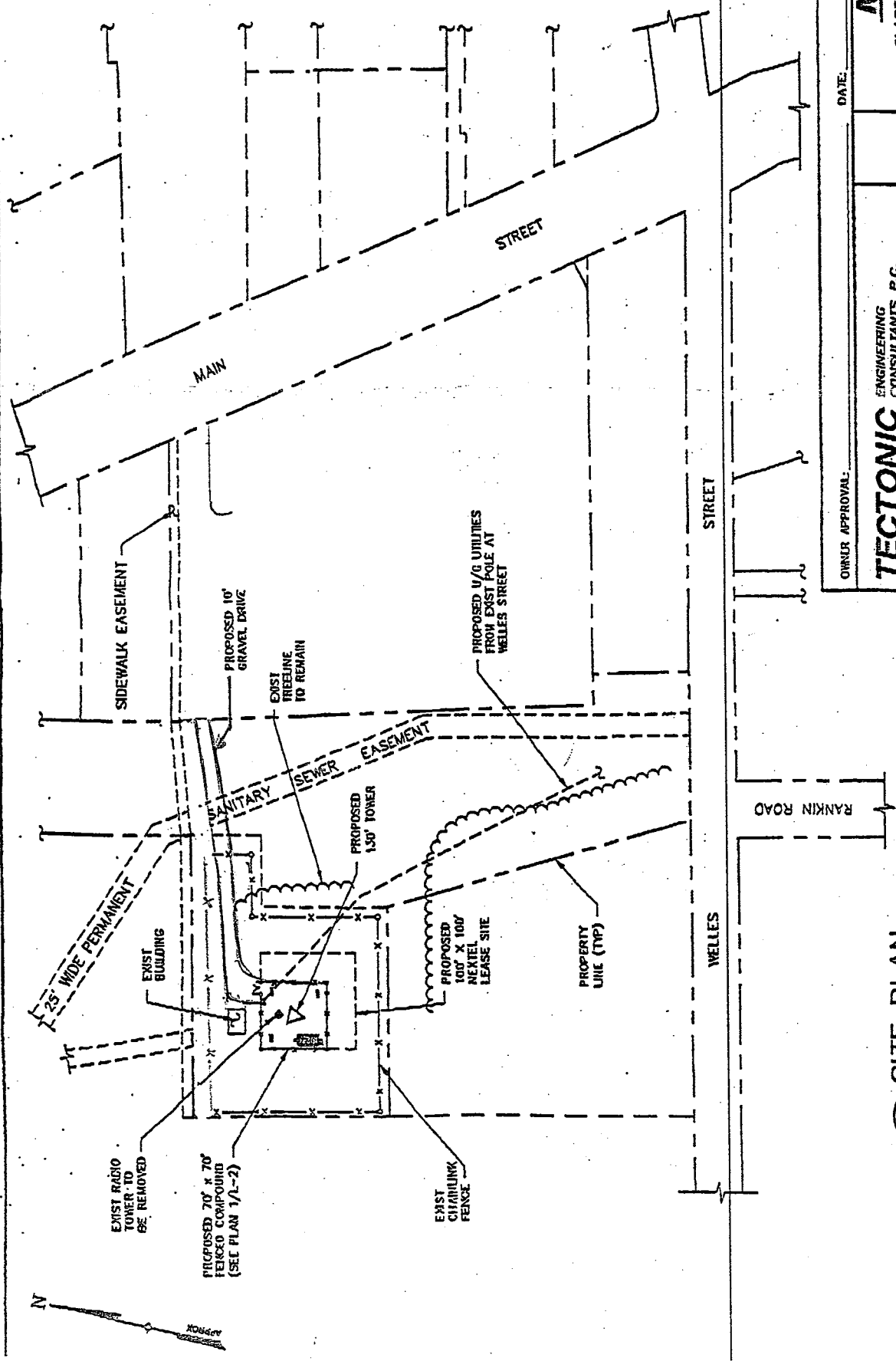


TOWER BASE LAYOUT

- GENERAL NOTES:**
- All bolts must be tightened to AISC "snug fit" specifications.
 - Step bolts are provided on one leg to the top of the tower and on three legs to the top of 2 panel sections.
 - Install safety climb equipment per manufacturer's specifications.
 - Install all hardware to facilitate in-place visual inspection.
 - Install hardened washers against all slotted connections.



FRED A. NUDD CORPORATION
 Route 104-Danville, New York 14518-315-524-2
 Phone No. 518-785-1111
 Fax No. 518-785-1112
 EDR
 07/12/88
130' 568PA TOWER DESIGN
 NEXTEL COMMUNICATIONS CT-0087
 Glastonbury, CT
 99-6893



OWNER APPROVAL:		DATE:	LEASE EXHIBIT	
TECTONIC ENGINEERING CONSULTANTS P.C. P.O. BOX 447, 615 ROUTE 32 HIGHLAND MILLS, NY 10950 (914) 958-8831 ISSUED BY: <i>Edward P. P. [Signature]</i> W.O. 1170.C057			L-1	
		7/30/99		
		8/14/99		
		6/4/98		

SITE PLAN
 SCALE: 1" = 100'
 1
 L-1

Glastonbury, CT - Co-location on an Existing Tower on Main St										
Nextel Communications Directional ESMR Antennas - 851 MHz at centerline 128' AGL - Proposed										
Note: Power densities are in mW/cm²										
Transmitter:										
Frequency in MHz			CT Standard mW/cm²			Total ERP per sector (Watts)			Centerline of Tx antennas AGL (ft)	Power density calculated at the tower base
851			0.56733			900			128	0.019742432
Nextel Directional ESMR Antennas										
Nextel Directional Antennas - % of CT Standard										
Total % of CT and FCC Standard										
3.4799%										
3.4799%										