STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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

July 27, 2000

J. Brendan Sharkey, Esq.
VoiceStream Wireless Corporation
100 Filley Street
Bloomfield, CT 06002

RE: TS-VOICESTREAM-118-000712 - Omnipoint Communications, Inc. request for an order to approve tower sharing at an existing telecommunications tower located at 746 Danbury Road, Ridgefield, Connecticut.

Dear Attorney Sharkey:

At a public meeting held July 25, 2000, 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 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 may require an explicit request to this agency pursuant to General Statutes § 16-50aa or notice pursuant to Regulations of Connecticut State Agencies Section 16-50j-73, as applicable. Such request or 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 July 12, 2000.

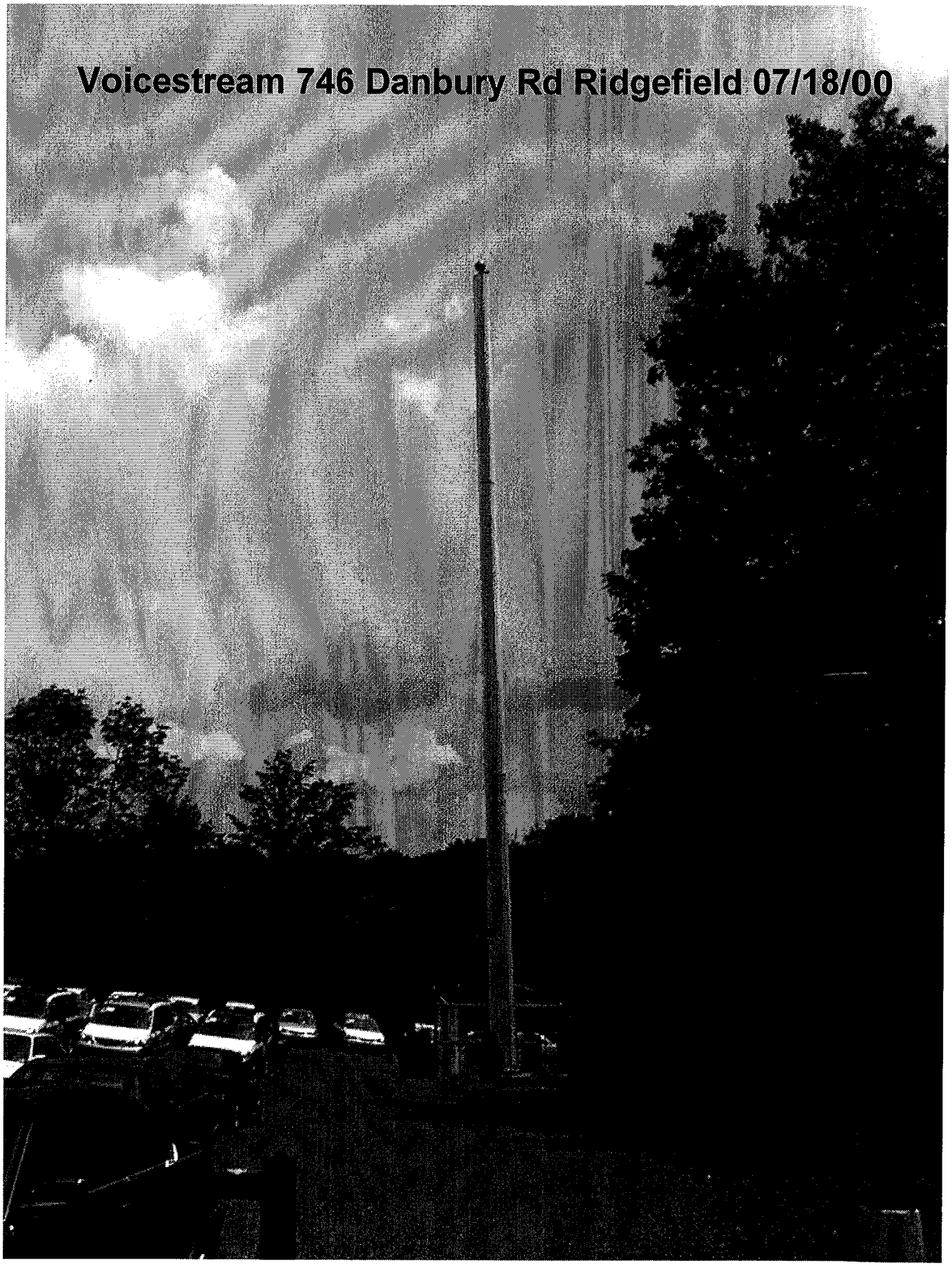
Thank you for your attention and cooperation.

Very truly yours,

Mortimer A. Gelston
Chairman

MAG/RKE/laf

c: Honorable Rudolph P. Marconi, First Selectman, Town of Ridgefield
Ronald C. Clark, Nextel Communications


Voicestream 746 Danbury Rd Ridgefield 07/18/00

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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

July 18, 2000

Honorable Rudolph P. Marconi
First Selectman
Town of Ridgefield
400 Main Street
Ridgefield, CT 06877

RE: TS-VOICESTREAM-118-000712 - Omnipoint Communications, Inc. request for an order to approve tower sharing at an existing telecommunications tower located at 746 Danbury Road, Ridgefield, Connecticut.

Dear Mr. Marconi:

The Connecticut Siting Council (Council) received this request for tower sharing, pursuant to Connecticut General Statutes § 16-50aa.

The Council will consider this item at the next meeting scheduled for July 25, 2000, at 1:30 p.m. in Hearing Room Three 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,

Joel M. Rinebold
Executive Director

JMR/RE/grg

Enclosure: Notice of Tower Sharing

15 - VoiceStream - 118-000712

VoiceStream WIRELESS

100 Filley Street, Waterbury, CT 06002
(860) 692-7154 phone
(860) 692-7159 fax

12 July, 2000

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

Re: Request by Omnipoint Communications, Inc.
for an Order to Approve the Shared Use of a Tower Facility
746 Danbury Road, Ridgefield, Connecticut

Dear Chairman Gelston and Members of the Council:

Pursuant to Connecticut General Statutes §16-50aa, Omnipoint Communications, Inc. ("Omnipoint") hereby requests an order from the Connecticut Siting Council ("Council") to approve the proposed shared of an existing flagpole tower located at 746 Danbury Road in Ridgefield, Connecticut. The tower is owned and operated by Nextel Communications ("Nextel"). Omnipoint proposes to install antennas on the existing tower located within Nextel's leased compound area, and to install related equipment near the base of the tower within the existing compound (see "Exhibit A"). Omnipoint requests that the Council find that the proposed shared use of the tower satisfies the criteria stated in §16-50aa and issue an order approving the proposed use.

Background

Omnipoint is licensed by the Federal Communications Commission (FCC) to provide PCS wireless telecommunications service in the State of Connecticut, which includes the area to be served by the proposed installation.

The Nextel tower at 746 Danbury Road in Ridgefield was recently approved by the Ridgefield Planning and Zoning Commission and is a 100-foot pole located on an approximately 2,475 sq. ft. compound. The coordinates for this location are 41-19-47 N and 72-28-19 W. Nextel intends to install its antennas with centerlines at 97'5" feet above ground level ("AGL"). Omnipoint and Nextel have agreed to mutually acceptable terms and conditions for the proposed shared use of this tower, and Nextel has authorized Omnipoint to act on its behalf to apply for all necessary local, state and federal permits, approvals, and authorizations which may be required for the proposed shared use of this facility.

As shown on the site plan drawings and tower elevations attached as Exhibit A, Omnipoint proposes to install a total of four antennas, two per sector, mounted at the 87.5-foot level. The antennas are Algon Dual-Pol Model 7250. The radio transmission equipment associated with these antennas, a Nortel S8000 cabinet, would be mounted on a concrete slab at the base of the pole.

C.G.S. §16-50aa (c) (1) 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." The shared use of the tower satisfies those criteria as follows:

A. **Technical Feasibility** - The existing tower was designed to accommodate three carriers, and Omnipoint is the second carrier to propose co-location. As the structural analysis attached as Exhibit C indicates, the tower is structurally sound and capable of supporting the proposed antennas. The proposed shared use of this tower therefore is technically feasible.

B. **Legal Feasibility** - Under C.G.S. § 16-50aa, the Council has been authorized to issue orders approving the proposed shared use of an existing tower facility such as the facility on Danbury Road in Ridgefield. (Public Acts 93-268, Section 2; and 94-242, Section 6 (c)). 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) vests exclusive jurisdiction over these facilities in the Council, which shall "give such consideration to other state laws and municipal regulations as it shall deem appropriate" in ruling on requests for the shared use of existing towers facilities. Under this statutory authority vested in the Council, an order by the Council approving the shared use would permit the applicant to obtain a building permit for the proposed installations.

C. **Environmental Feasibility** - The proposed shared use would have a minimal environmental effect, for the following reasons:

1. The proposed installations would have an insignificant incremental visual impact, and would not cause any significant change or alteration in the physical or environmental characteristics of the existing site. In particular, the proposed installations would not increase the height of the existing tower, and would not extend the boundaries of the existing Nextel compound area.

2. The proposed installations would not increase the noise levels at the existing facility by six decibels or more.

3. Operation of antennas at this site would not exceed the total radio frequency electromagnetic radiation power density level adopted by the American National Standards Institute ("ANSI"). The "worst-case" exposure calculated for operation of this facility (i.e., calculated at the base of the tower, which represents the closest publicly accessible point within the broadcast field of the antennas), with the Nextel and Omnipoint antennas, would be 0.04842 mW/cm2 (14.14% of the ANSI standard). These calculations are attached as Exhibit D.

4. The proposed installations would not require any water or sanitary facilities, or generate air emissions or discharges to water or sanitary facilities, or generate air emissions or discharges to water bodies. After construction is complete (approximately two weeks), the proposed installations would not generate any traffic other than for periodic maintenance visits.

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

E. **Economic Feasibility** - As previously mentioned, Omnipoint has entered into an agreement with Nextel to share the use of the existing tower on terms agreeable to the parties. The proposed tower sharing is therefore economically feasible.

F. **Public Safety Concerns** - As stated above, the existing tower is structurally capable of supporting the proposed Omnipoint antennas. The tower stands on a raw land compound off Danbury Road. The size and location of the tower have also been approved by the Ridgefield Planning and Zoning Commission which considered public health and safety in its review. Omnipoint is not aware of any other public safety concerns relative to the proposed sharing of the existing tower. In fact, the provision of new or improved phone service through shared use of the existing tower is expected to enhance the safety and welfare of area residents and travelers.

Conclusion

For the reasons discussed above, the proposed shared use of the existing tower facility at 746 Danbury Road in Ridgefield, Connecticut satisfies the criteria stated in C.G.S. §16-50aa, and advances the General Assembly's and the Siting Council's goal of preventing the proliferation of towers in Connecticut. Omnipoint therefore request that the Siting Council issue an order approving the proposed shared use.

Thank you for your consideration of this matter.

Sincerely,

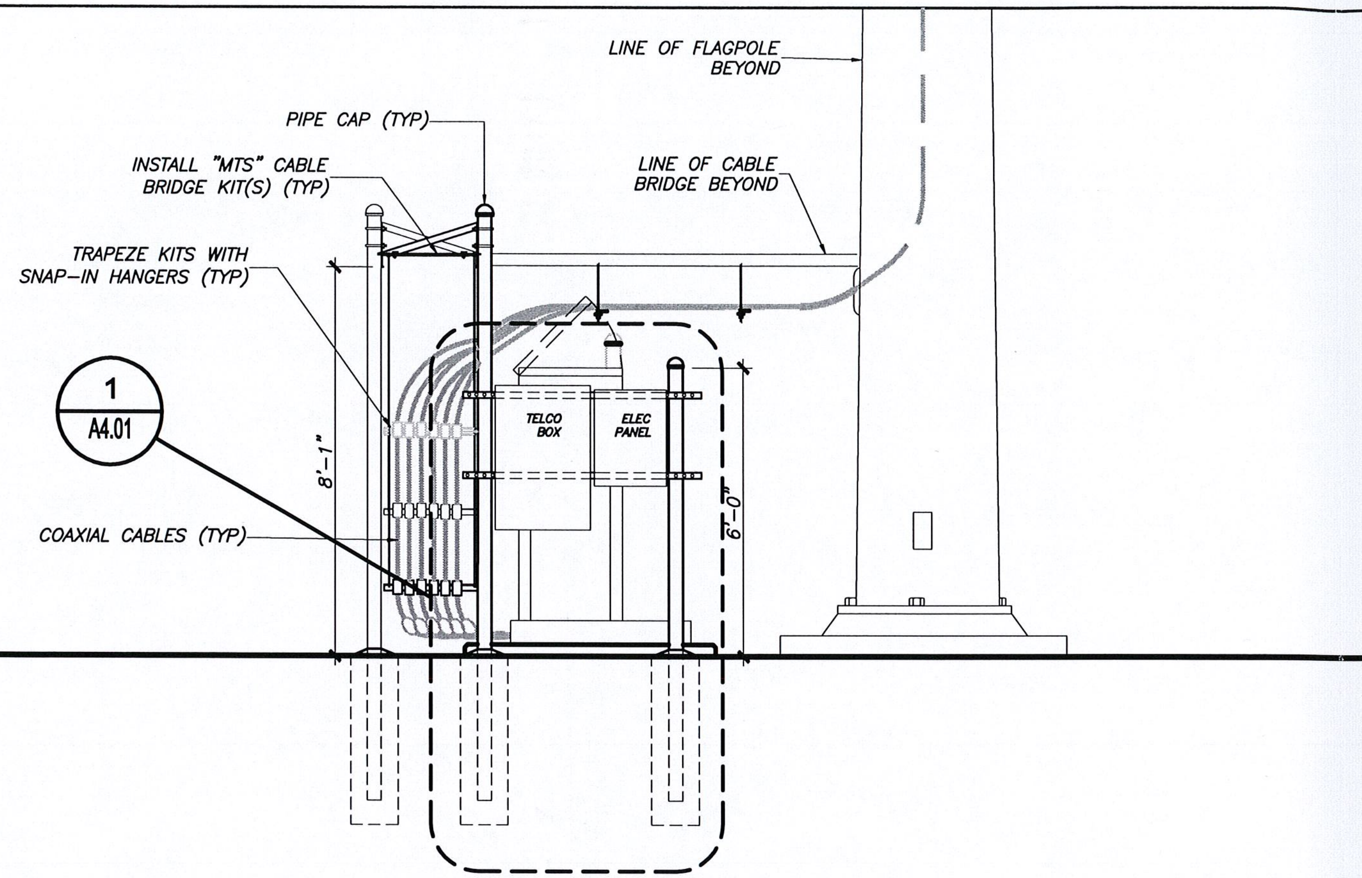
J. Brendan Sharkey, Esq.
for Omnipoint Communications, Inc.

Attachments
cc: Rudy Marconi, First Selectman

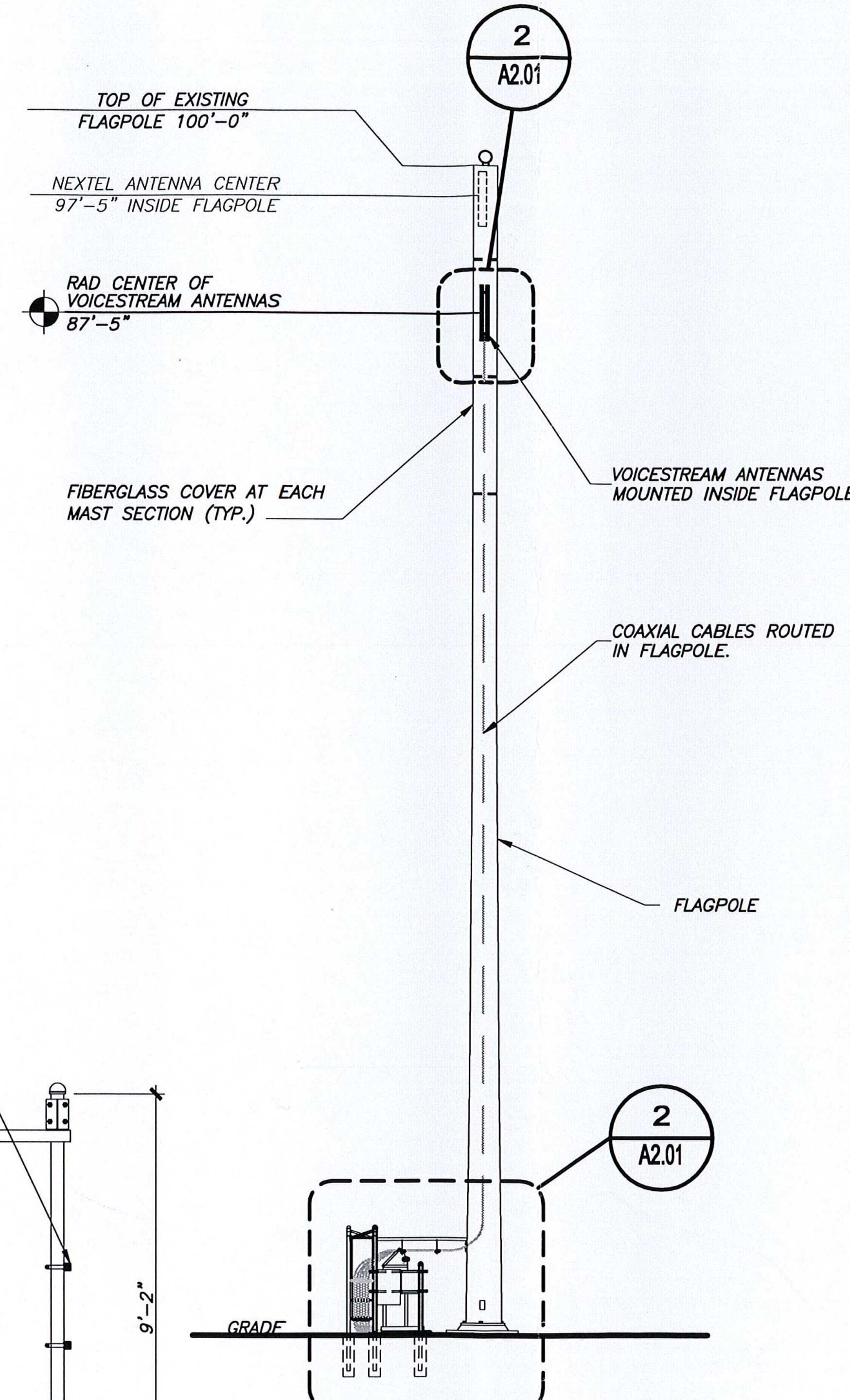
VoiceStream WIRELESS

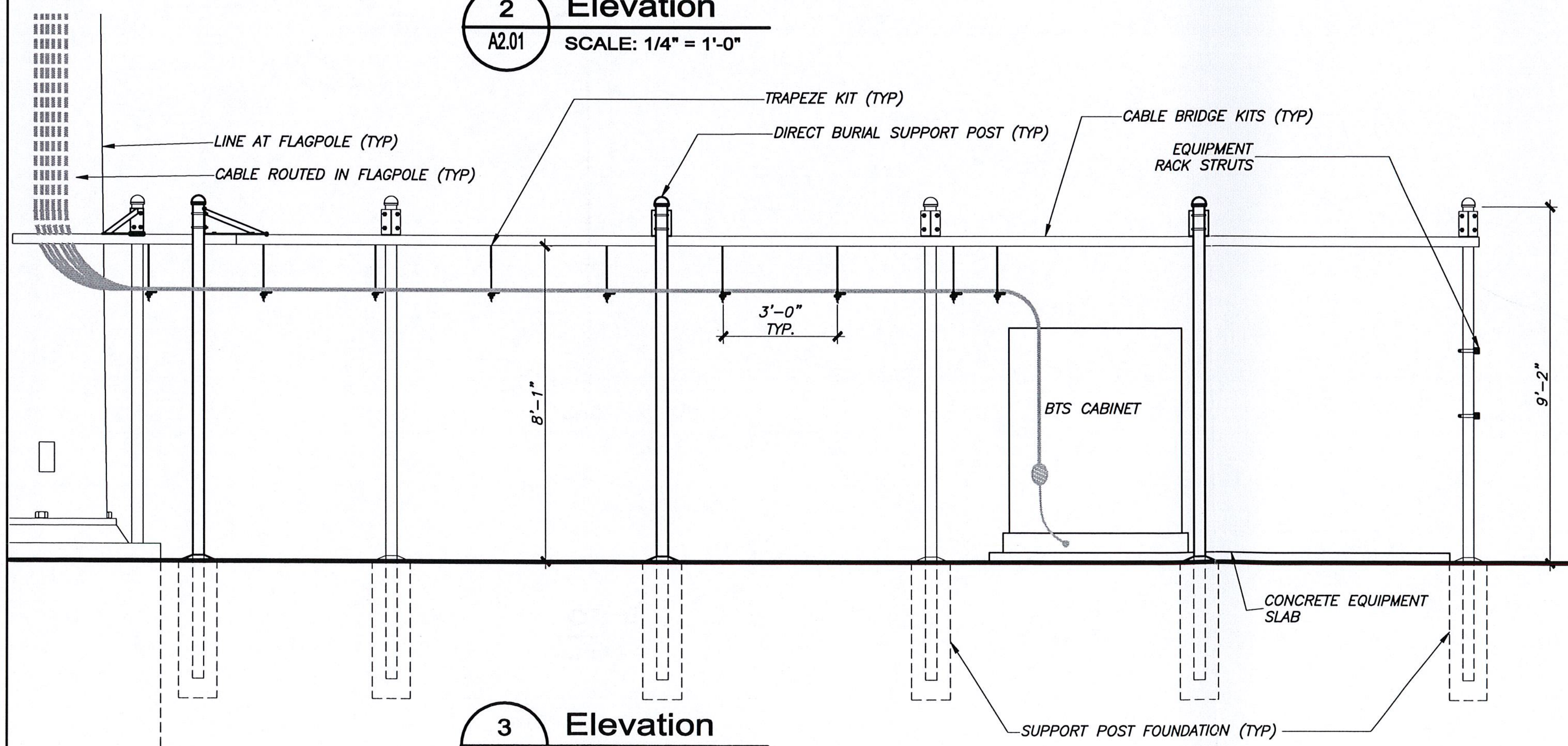
Exhibit A

Design Drawings
746 Danbury Road
Ridgefield, CT



2 / A2.01 **Elevation**
SCALE: 1/4" = 1'-0"





3 / A2.01 **Elevation**
SCALE: 1/4" = 1'-0"

1 / A2.01 **Flagpole Elevation**
SCALE: 1/16" = 1'-0"

Carter :: Burgess
481 BUCKLAND ROAD, SUITE 201
SOUTH WINDSOR, CT 06074
TEL 860-648-5619 FAX 860-648-5665

Rev. No.	Date:
1	07/05/00

Client:
VoiceStream WIRELESS
100 FILLEY STREET
BLOOMFIELD, CT 06002
OMNIPOINT
Omnipoint Communications Inc.
A subsidiary of VoiceStream Wireless Corporation

Client Approvals:

Approved By:	Signature:	Date:
OWNER/SAC:		
RF ENGINEER:		
CONSTRUCTION:		

Drawing Title:
ELEVATIONS

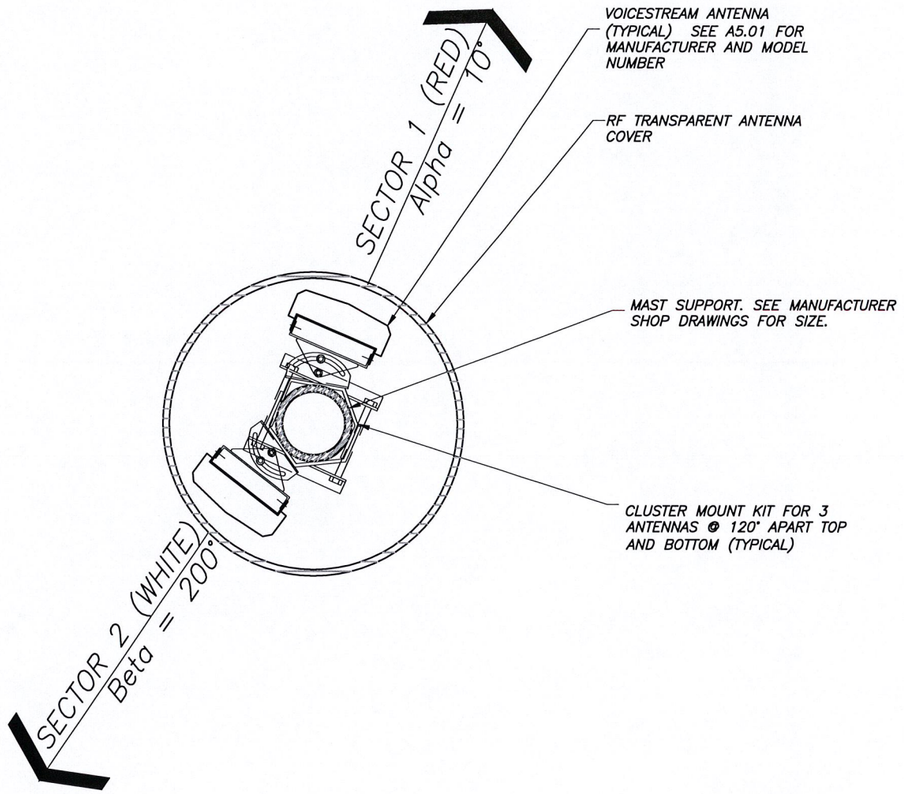
Project Name:
NEXTEL CO-LOCATE
746 DANBURY ROAD
RIDGEFIELD, CT

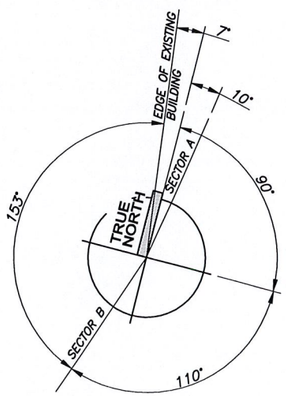
Client Site I.D.:
CT-11297C

Drawing No.
A2.01

PM:	Drawn By:	Date:
KAM	DBK	06/15/2000

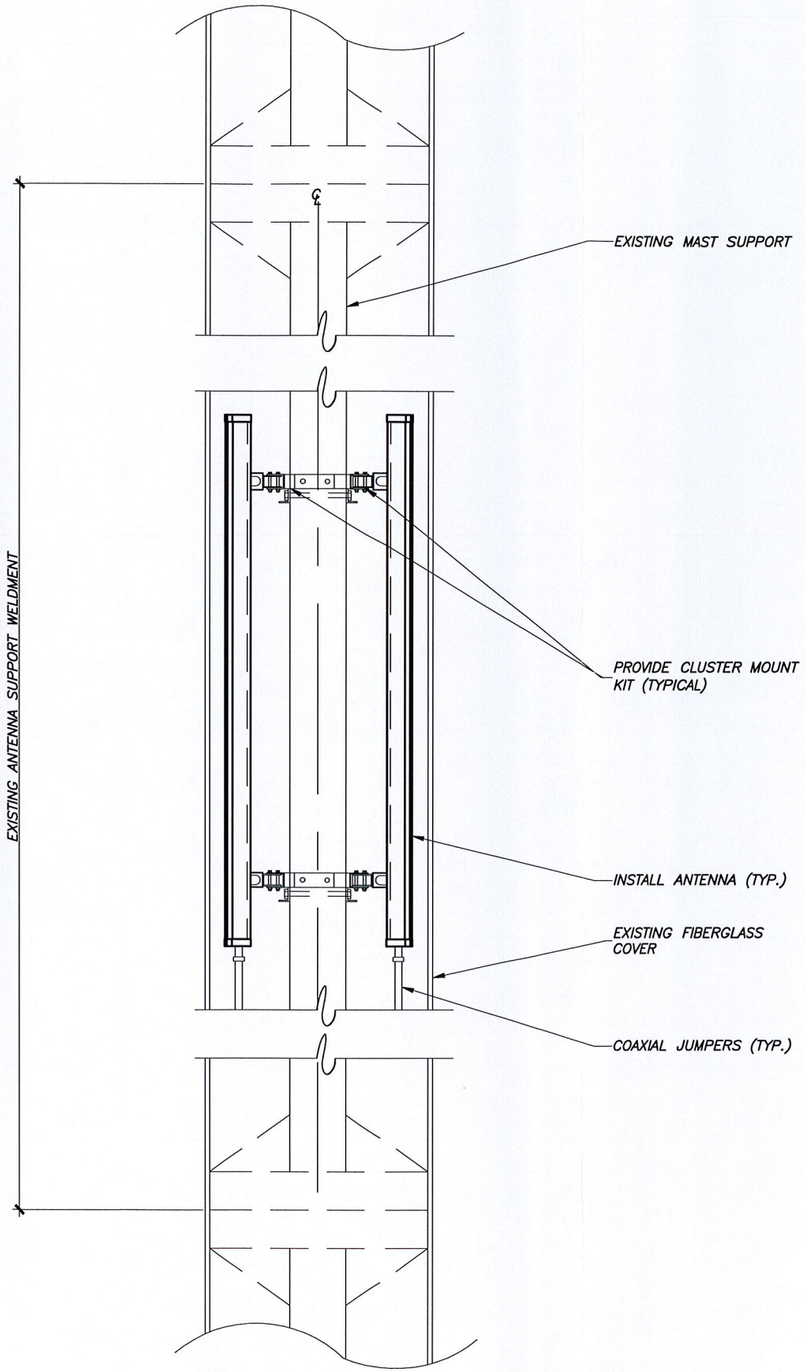
CB Project No:
320358





1 A4.04 **Antenna Plan**

SCALE: 1" = 1'-0"



2 A4.04 **Antenna Mounting Detail**

SCALE: 3/4" = 1'-0"

Carter :: Burgess
481 BUCKLAND ROAD, SUITE 201
SOUTH WINDSOR, CT 06074
TEL 860-648-5619 FAX 860-648-5665

STATE OF CONNECTICUT
ROBERT A. KATZ
REG. NO. 9168
REGISTERED ARCHITECT

Rev. No.	Date:
1	07/05/00

Client:

VoiceStream WIRELESS
100 FILLEY STREET
BLOOMFIELD, CT 06002
OMNIPOINT
Omnipoint Communications Inc.
A subsidiary of VoiceStream Wireless Corporation

Client Approvals:

Approved By:	Signature:	Date:
OWNER/SAC:		
RF ENGINEER:		
CONSTRUCTION:		

Drawing Title:
ANTENNA DETAILS

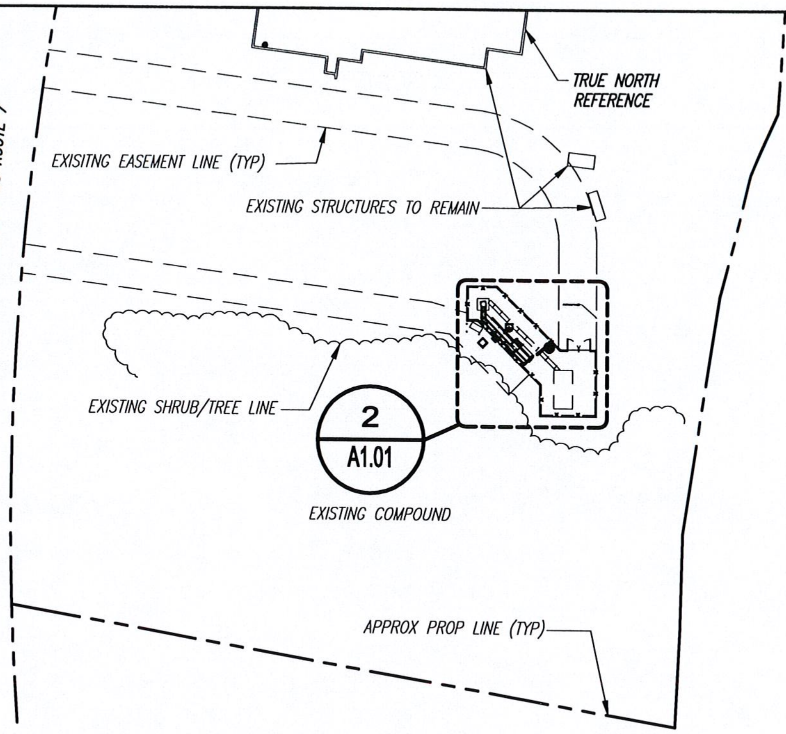
Project Name:
NEXTEL CO-LOCATE
746 DANBURY ROAD
RIDGEFIELD, CT

Client Site I.D.:
CT-11297C

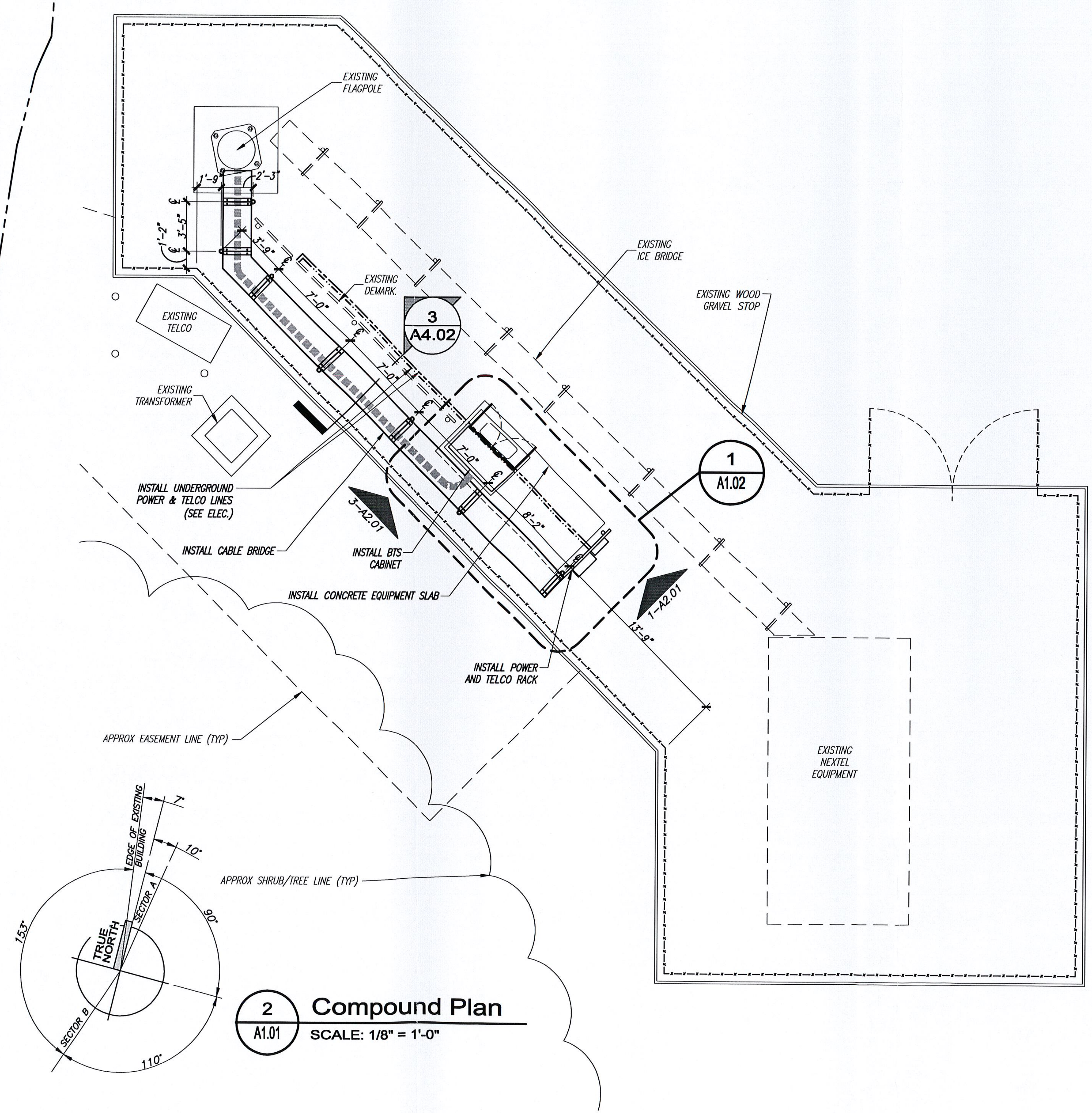
Drawing No.
A4.04

PM:	Drawn By:	Date:
KAM	TK	06/15/2000

CB Project No:
320358



1 A1.01 **Site Layout Diagram**
SCALE: 1" = 100'-0"



2 A1.01 **Compound Plan**
SCALE: 1/8" = 1'-0"

NOTES:

1. TRUE NORTH PROVIDED BY CLIENT.

2. CONTRACTOR SHALL LOCATE AND MARK-OUT ALL PUBLIC AND PRIVATE UNDERGROUND UTILITIES AND STRUCTURES VIA THE USE OF A LOCATING SERVICE PRIOR TO ANY EXCAVATION WORK. MANUAL EXCAVATION SHALL BE DONE IN AREAS IMMEDIATELY ADJACENT TO EXISTING UTILITIES OR STRUCTURES. CONTACT CALL BEFORE YOU DIG. 1-800-922-4455 AT LEAST 72 HOURS IN ADVANCE. CONTRACTOR MUST EMPLOY UNDERGROUND LOCATION SERVICE - TO BE APPROVED BY OWNER - WHERE CALL BEFORE YOU DIG IS NOT AVAILABLE.

3. SURVEY INFORMATION ILLUSTRATED ON THESE DOCUMENTS HAVE BEEN PROVIDED BY THE CLIENT AND/OR OWNER. CARTER-BURGESS ACCEPTS NO RESPONSIBILITY FOR THEIR ACCURACY.

LEGEND:

- PROPERTY LINE
- SET-BACK LINE
- U.G.TELCO LINE
- U.G. ELEC LINE
- CHAIN LINK FENCE

WED, JUL 05, 2000 03:58 P JJM H:\VOICESTREAM-OMNIPOINT\RIDGEFIELD\320358-297C\CAD\320358-297C-A1-01.DWG X-REFS, 320358-297C-BORDER.DWG, 320358-297C-TNA.DWG

Carter::Burgess
481 BUCKLAND ROAD, SUITE 201
SOUTH WINDSOR, CT 06074
TEL 860-648-5619 FAX 860-648-5665

STATE OF CONNECTICUT ... REGISTERED ARCHITECT NO. 9168

Rev. No.	Date:
1	07/05/00

Client:
VoiceStream WIRELESS
100 FILLEY STREET
BLOOMFIELD, CT 06002
OMNIPOINT
Omnipoint Communications Inc.
A subsidiary of VoiceStream Wireless Corporation

Client Approvals:

Approved By:	Signature:	Date:
OWNER/SAC:		
RF ENGINEER:		
CONSTRUCTION:		

Drawing Title:
COMPOUND PLANS

Project Name:
NEXTEL CO-LOCATE
746 DANBURY ROAD
RIDGEFIELD, CT

Client Site I.D.:
CT-11297C

Drawing No.
A1.01

PM:	Drawn By:	Date:
KAM	TK	06/15/2000

CB Project No:
320358

VoiceStream WIRELESS

Exhibit B

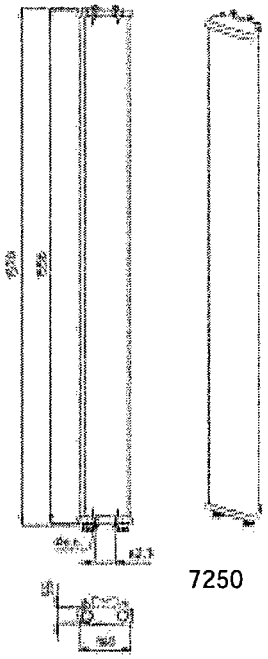
Equipment Specifications

746 Danbury Road

Ridgefield, CT

Electrical Specifications	7250.03 (+45,-45)
Polarization	linear dual polarized, slanted ± 45°
Co-polar gain dBd (dBi)	16.5 (18.5)
Isolation between inputs	>30 dB
Cross polar discrimination	>20 dB
Horizontal -3dB beamwidth	65°
Vertical -3dB beamwidth	5.5
Front-to-back ratio, total power	>20 dB
Front to back ratio, co-polar	>23 dB
Electrical Downtilt	2°
Nominal Impedance	50 ohm
VSWR	<1.3:1
Maximum input power	250W
Intermodulation products(2Tx@10 W)	<-110 dBm
First null below the horizon	>-23 dB
First upper side lobe suppression	>19 dB

Mechanical Specifications	7250.03
Connector	N, 7/16
Position	Lower
Height	60.6" (1.54m)
Width	6.5" (.165m)
Depth	2" (.05m)
Weight	15.4 lb (7kg)
wind speed	156 mph (70m/s)
Wind load, frontal @90mph(41.6m/s)	58 lbf. (259N)

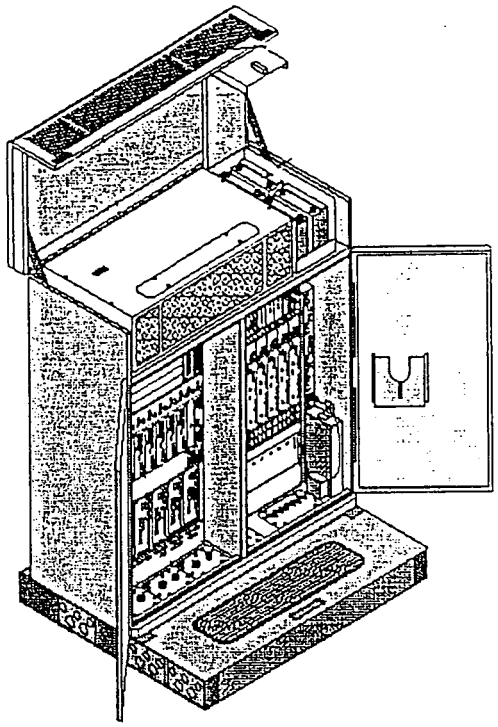


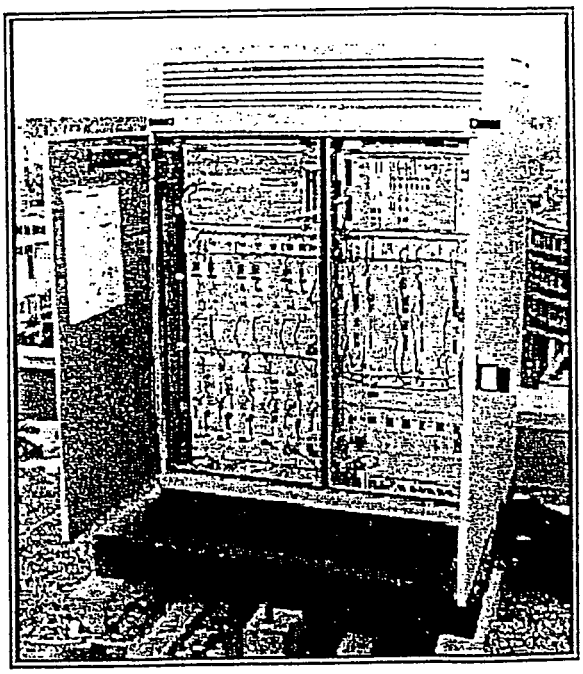
7250

PCS Dual Polarized 65°

NORTEL NETWORKS™

S8000 BTS
Site Specifications





Electrical Specifications

Split Single-Phase

3 wires plus ground

L1: Black 6 gauge

L2: Red 6 gauge

Neutral: White 6 gauge

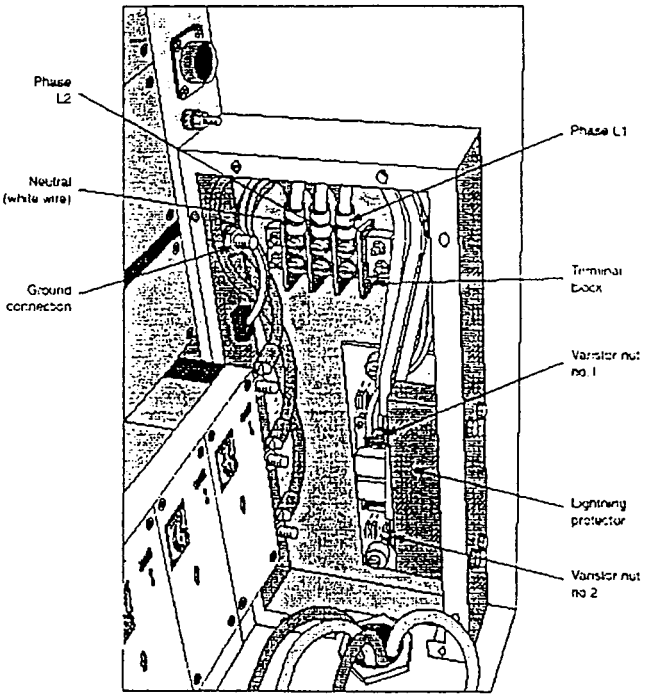
Ground: Yellow/Green 6 gauge

Maximum distance between AC box and BTS: 105 feet

187 ~ 254 VAC between L1 and L2

99 ~ 127 VAC between Neutral and L1 or L2

45 ~ 65 Hertz



AC connection to BTS located at the front, lower, right-hand side of BTS

Circuit Breaker in AC Box

Up to 4 transmitters

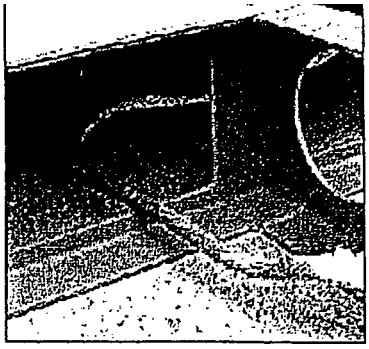
30 A, bipolar, C curve

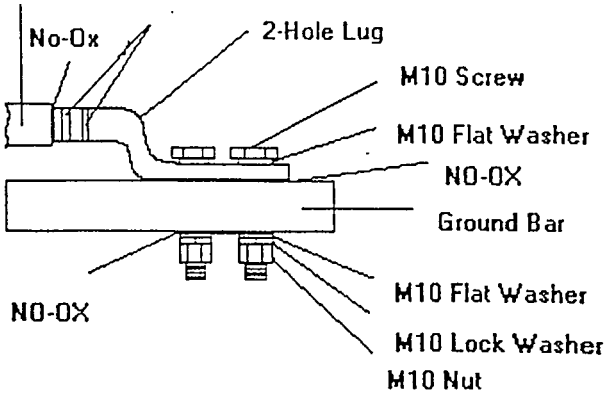
5 or more transmitters

40A, bipolar, C curve

BTS to Ground connection

Minimum 2 AWG, run in most direct route as possible towards true earth, minimizing bends. No bend shall be less than 90 degrees.





Apply a light coating of No Oxidation (NO-OX) to the ground bar area.

Dimensions, Weights & Clearances

BTS

Weight: 915 pounds
Dimensions: 53.2"W x 26"D x 63"H

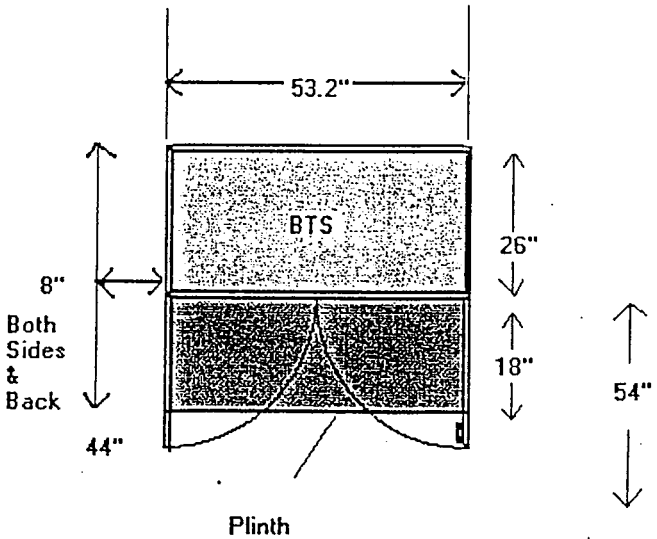
Clearances while transporting in building:
- Door Access:
  - Height: 6.6 feet
  - Width 3 feet
- Corridor Access:
  - Height: 6.6 feet
  - Width: 3.6 feet (straight), 6.6 feet (right angle)

Clearances when installed:
- Above: 28 inches for opening of hood
- Rear: 8 inches for installation of outer skin
- Sides: 8 inches for adjustment of door hinges
- Front: 54 inches to open door and technician access

Plinth

Weight:
87 pounds

Dimensions:
53.2"W x 44"D x 10.2"H



Plinth

Floor Characteristics

Minimum Floor Resistance:
123 pounds/foot^2

Flatness:
¼ inch over 78 inches

VoiceStream WIRELESS

Exhibit C

Structural Analysis
746 Danbury Road
Ridgefield, CT

PAUL J. FORD AND COMPANY
STRUCTURAL ENGINEERS
250 East Broad Street • Suite 500 • Columbus, Ohio 43215

June 7, 2000

Carter-Burgess
481 Buckland Road
Suite 201
South Windsor, CT 06074

ATTN: Kemp Morhardt

RE: Proposed VoiceStream Antenna Colocation
On Existing Nextel 100-Ft Flag Pole Located in Ridgefield, CT
(PJF project number: 31200-021, reference 31900-003) (Carter- Burgess #320358)

Dear Mr. Morhardt:

Paul J. Ford and Company has been informed that VoiceStream will be installing (2) EMS RR-65-18-02 antenna on the existing Stealth Network Technologies manufactured monopole owned by Nextel. The 100-ft flag pole was designed to house telecommunications antennas inside an antenna radome in the upper 30-Ft of the flag pole.

We understand the VoiceStream antenna will be centered at the 86-ft elevation. These antenna will be placed on the interior of the antenna radome, and will not place additional stresses to the monopole shaft. Therefore, the existing flag pole can safely support the addition of the (2) EMS RR-65-18-02 antenna at the 86-ft elevation.

If you would have any questions regarding this letter, or if we can be of further service to you, please feel free to call me @ (614) 221-6679.

Sincerely,

PAUL J. FORD AND COMPANY

STATE OF CONNECTICUT * KEVIN P. BAUMAN * No. 17891 LICENSED PROFESSIONAL ENGINEER

Kurt J. Swarts, P.E.
Project Engineer
e-mail: kswarts@pjfweb.com

Kevin P. Bauman, P.E.
Connecticut License #17891

G:\COMMON\WORD\KURT\MISC\31200020L001.doc

VoiceStream WIRELESS

Exhibit D

Power Density Calculations
746 Danbury Road
Ridgefield, CT

VoiceStream WIRELESS

100 Filley St., Bloomfield, CT 06002
Phone: (860) 692 - 7129
Fax: (860) 692 - 7159

Technical Memo

To: Brendan Sharkey
From: Chetan Dhaduk (Radio Engineering Consultant)
cc: Mike Fulton
Subject: Power Density Report for CT11297C
Date: 7/12/00

1. Introduction:
This report is the result of an Electromagnetic Field Intensities (EMF - Power Densities) study for the proposed VoiceStream Wireless PCS antenna installation on Nextel Tower at 746 Danbury Road in Ridgefield, CT. This study incorporates the most conservative considerations for determining the practical combined worst case power density levels that would be theoretically encountered from several locations surrounding the transmitting location.

2. Discussion:
The following assumptions were used in the calculations:

1) The emissions from the VSW transmitters are in the 1930-1950 MHz frequency band.
2) The antenna cluster consists of two sectors, with one antenna per sector. The model number for each antenna is Allgon 7250.02.
3) The EMS antenna heights are 86.0 centerline.
4) The maximum transmit power from each sector is 2743.41 Watts Effective Isotropic Radiated Power (EiRP).
5) All the antennas are simultaneously transmitting and receiving, 24 hours a day.
6) Power levels emitting from the antennas are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
7) The average ground level of the studied area does not significantly change with respect to the transmitting location.

Equations given in "FCC OET Bulletin 65, Edition 97-01" were then used with the above information to perform the calculations.

3. Conclusion:
Based on the above worse case assumptions, the power density calculations from the proposed VoiceStream Wireless, PCS antenna installation at the town hall Tower is 0.020627 mW/cm2. This value represents only 2.0627% of the Maximum Permissible Emission (MPE) standard of 1000 microwatts per square centimeter ($\mu w/cm^2$) set forth in the FCC/ANSI/IEEE C95.1-1991.
Details are shown in the attachment. Furthermore, the proposed antenna location for VoiceStream Wireless on Nextel Tower at 746 Danbury Road in Ridgefield, CT will not interfere with existing public safety telecommunications, AM band and FM band radio broadcast, TV, Police Communication, HAM Radio communications and other signals in the area.

Worst Case Power Density for Nextel Tower at 746 Danbury Road in Ridgefield, CT

Region 11 - Connecticut Power Density Calculation - Worst Case				
Base Station TX output	20 W		43.01	
Number of channels	4			
Antenna Model	Allgon: 7250.02			
Antanna Gain	18.5 dBi			
Cable Size	1 1/4"			
Cable Length	120 ft			
Jumper & Connector loss	1.3 dB			
Cable Loss per foot	0.0154			
Total Cable Loss	1.848 dB			
Total Attenuation	3.148 dB			
Total EIRP per channel	58.36 dB		685.85	W
Total EIRP per sector	64.38 dB		2743.41	W
Ground Reflection	1.6			
Frequency	1930 MHz			
Antenna Height	86 ft		2621.28	cm
nsg	15.352			
Power Density (S) =	**0.081379 mW / cm^2**			
% MPE =	**8.1379%**			

Combined Power Density With Nextel	*0.048422 mW/cm^2*
Combined %MPE With Nextel	*14.1359%*

Equation Used :

$$S = \frac{(1000)(grf)^2(Power) * 10^{(nsg/10)}}{4\pi (R)^2}$$

Office of Engineering and Technology (OET) Bulletin 65, Edition 97-01, August 1997