



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

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

October 25, 1999

J. Brendan Sharkey, Esq.
Omnipoint Communications, Inc.
100 Filley Street
Bloomfield, CT 06002

RE: TS-OCI-023-991008 - Omnipoint Communications request for an order to approve tower sharing at an existing telecommunications facility located at the Canton Volunteer Fire Company on 14 Canton Springs Road in Canton, Connecticut.

Dear Attorney Sharkey:

At a public meeting held October 21, 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 October 8, 1999.

Thank you for your attention and cooperation.

Very truly yours,

Mortimer A. Gelston
Chairman

MAG/SLI/sll

cc: Honorable Kathleen C. Corkum, First Selectman, Town of Canton
Sandy M. Carter, Manager - Regulatory, Bell Atlantic Mobile
Peter W. van Wilgen, Director - Real Estate Operations, SNET Wireless, Inc.
Ronald C. Clark, Manager - Real Estate, Nextel Communications



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

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

October 12, 1999

Honorable Kathleen C. Corkum
First Selectman
Town of Canton
4 Market Street, P.O. Box 168
Collinsville, CT 06022

RE: TS-OCI-023-991008 - Omnipoint Communications request for an order to approve tower sharing at an existing telecommunications facility located at the Canton Volunteer Fire Company on 14 Canton Springs Road in Canton, Connecticut.

Dear Ms. Corkum:

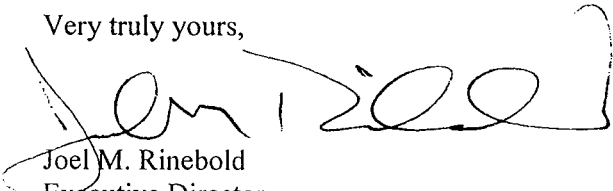
The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for Friday, October 8, 1999, at 10:00 a.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,


Joel M. Rinebold
Executive Director

JMR/jlh

Enclosure: Notice of Intent



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

8 October, 1999

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

RECEIVED

OCT - 8 1999

**CONNECTICUT
SITING COUNCIL**

**Re: Request by Omnipoint Communications, Inc. for an
Order to Approve the Shared Use of a Tower Facility
14 Canton Springs Road, Canton, 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 use by the Applicant of a tower currently under construction at 14 Canton Springs Road in Canton, Connecticut. The tower is owned by the Canton Volunteer Fire Company ("the Fire Company"). Omnipoint proposes to install antennas on the tower at 100 feet Above Ground Level ("AGL"), and the equipment associated with this facility would be located near the base of the tower within the existing compound (see "Exhibit A"). The Applicant 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 Communications, Inc. is licensed by the Federal Communications Commission (FCC) to provide PCS wireless telephone service in the State of Connecticut, which includes the area to be served by Omnipoint's proposed installation.

The Canton Volunteer Fire Company tower at 14 Canton Springs Road in Canton will be a 140-foot monopole located behind the existing fire house. In addition to the town's whip antennas at the top which will extend to 160 feet AGL, Springwch Cellular Limited Partnership ("SNET"), Cellco Partnership d/b/a/ Bell Atlantic Mobile ("BAM"), and Nextel Communications ("Nextel") have recently applied to the Siting Council to install their antennas with centerlines at the 130-foot, 120-foot and 110-foot levels, respectively. Omnipoint and the Fire Company have agreed to the proposed shared use of this tower pursuant to mutually acceptable terms and conditions, and the Fire Company has also 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 evidenced by the attached Letter of Authorization (see Exhibit B).

Omnipoint proposes to install two (2) antennas, Model Nos. EMS RR-65-18-02DP and EMS RR-90-17-02DP, one per sector, on a platform with centerlines at 100 feet AGL. The radio transmission equipment associated with these antennas, a Nortel S2000H cabinet, would be mounted to a unistrut frame at the base of the monopole. Exhibit C contains specifications for the proposed antennas and equipment cabinet.

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 has been designed to accommodate multiple carriers, and therefore is structurally sound and capable of supporting the proposed Omnipoint 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 Canton Springs Road in Canton. (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 the Canton Volunteer Fire Company 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 town, SNET, BAM, Nextel and Omnipoint antennas, would be 1.756148 mW/cm² (22.16% 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 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, the Canton Volunteer Fire Company and Omnipoint have entered into a mutual agreement 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 will stand on an existing compound behind the Fire Station on Canton Springs Road and is accessed from the existing driveway at the site. 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.

Conclusion

For the reasons discussed above, the proposed shared use of the existing tower facility at Canton Springs Road in Canton, 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. The Applicant therefore requests that the Siting Council issue an order approving the proposed shared use.

Thank you for your consideration of this matter.

Very truly yours,

A handwritten signature in blue ink, appearing to read "J. Brendan Sharkey", is written over a horizontal line.

J. Brendan Sharkey
for Omnipoint Communications, Inc.

Attachments

cc: Kathleen Corkum, Canton First Selectman
Ralph Trumbull, Canton Volunteer Fire Department

Exhibit A

Design Drawings
14 Canton Springs Road
Canton, CT

TOP OF TOWN WHIP ANTENNA
160' ABOVE GRADE LEVEL

RAD CENTERLINE OF SNET ANTENNAS
130' ABOVE GRADE LEVEL

RAD CENTERLINE OF BAY ANTENNAS
120' ABOVE GRADE LEVEL

RAD CENTERLINE OF FUTURE NEXTEL ANTENNAS
110' ABOVE GRADE LEVEL

RAD CENTERLINE OF NEW OCS ANTENNAS
100' ABOVE GRADE LEVEL

RAD CENTERLINE OF FUTURE ANTENNAS
90' ABOVE GRADE LEVEL

NEW OCS ANTENNA (2) WITH NEW MEU (2) AMPLIFIER MOUNTED TO PLATFORM (SEE DRAWING A-8 FOR DETAILS)

EXISTING 140' HIGH MONOPOLE

NEW OCS 1/2" COAXIAL CABLE (TOTAL OF 7) ROUTED WITHIN EXISTING 140' MONOPOLE TO NEW OCS ANTENNAS (SEE DRAWING A-8)

NEW OCS CABLE ICE-BRIDGE (SEE DRAWINGS A-5 AND A-6)

NEW ELECT/TELCO PANELS MOUNTED DIRECT TO NEW UNISTRUT FRAME

NEW OCS NORTEL S2000H EQUIPMENT CABINET MOUNTED DIRECT TO NEW UNISTRUT FRAME (SEE DRAWING A-4)

EXISTING CABLE BRIDGE FOOTING (3) FOR FUTURE CABLE BRIDGE

EXISTING MONOPOLE FOUNDATION (BELOW GRADE)

EXISTING TRANSFORMERS

EXISTING BAY TELCO/ELECTRIC FRAME - MOUNTED METER STACK & PANELS

EXISTING GRADE

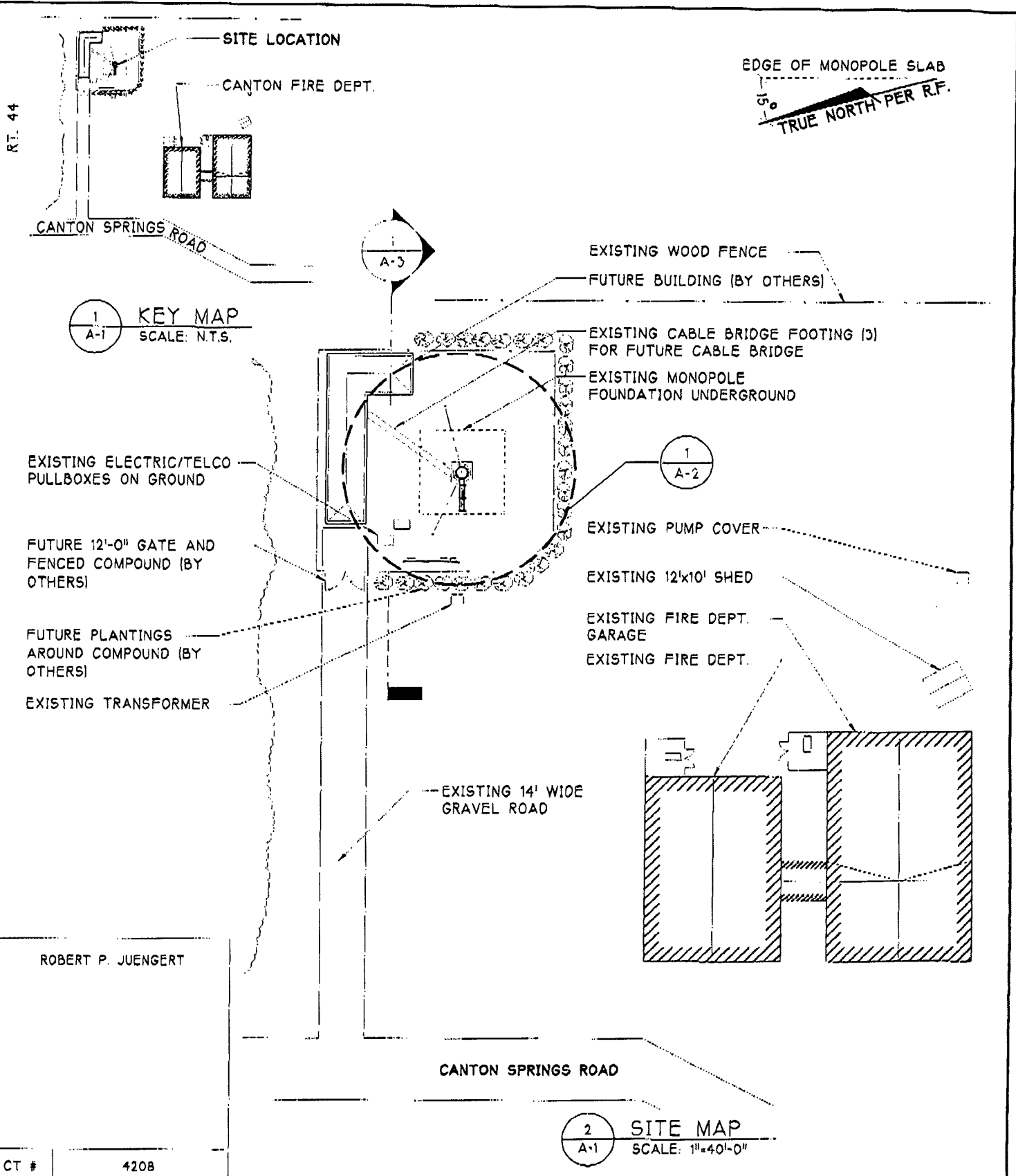
140'-0" FROM GRADE TO TOP OF MONOPOLE

ROBERT P. JUENGERT

1 ELEVATION
A-3 SCALE: 1"=20'-0"

CT # 4208

<p>ARCNET ARCHITECTS, INC. 670 North Beers Street, Building 2, Holmdel, NJ 07733 Tel: 732.739.3200 Fax: 732.739.0440</p>	Drawing Title: ELEVATION		Project: CANTON FIRE DEPARTMENT		Revision No. Date Drawing No. A-3
	Client: OCS		Address: 14 CANTON SPRINGS ROAD CANTON, CT. Search Area: SAM - CANTON Site ID No: CT-11-275C		
P.C. Checked: JDi Drawn: BCo Date: 10/1/99	ARCNET Project No: A99.506-861A		Approved By: CLIENT: _____ DATE: _____		



CT # 4208

ARCNET ARCHITECTS, INC.
670 North Beers Street, Building 2, Holmdel, NJ 07733
Tel: 732.739.3200 Fax: 732.739.0440

PC: JDi
P.C. Check: [Signature]

Drawing Title: **KEY AND SITE LAYOUT**

Client: **OCS**

ARCNET Project No: **A99.506-861A**

Disc: **BCo**

Date: **10/1/99**

Project: **CANTON FIRE DEPARTMENT**

Address: **14 CANTON SPRINGS ROAD CANTON, CT.**

Section Area: **SAM - CANTON**

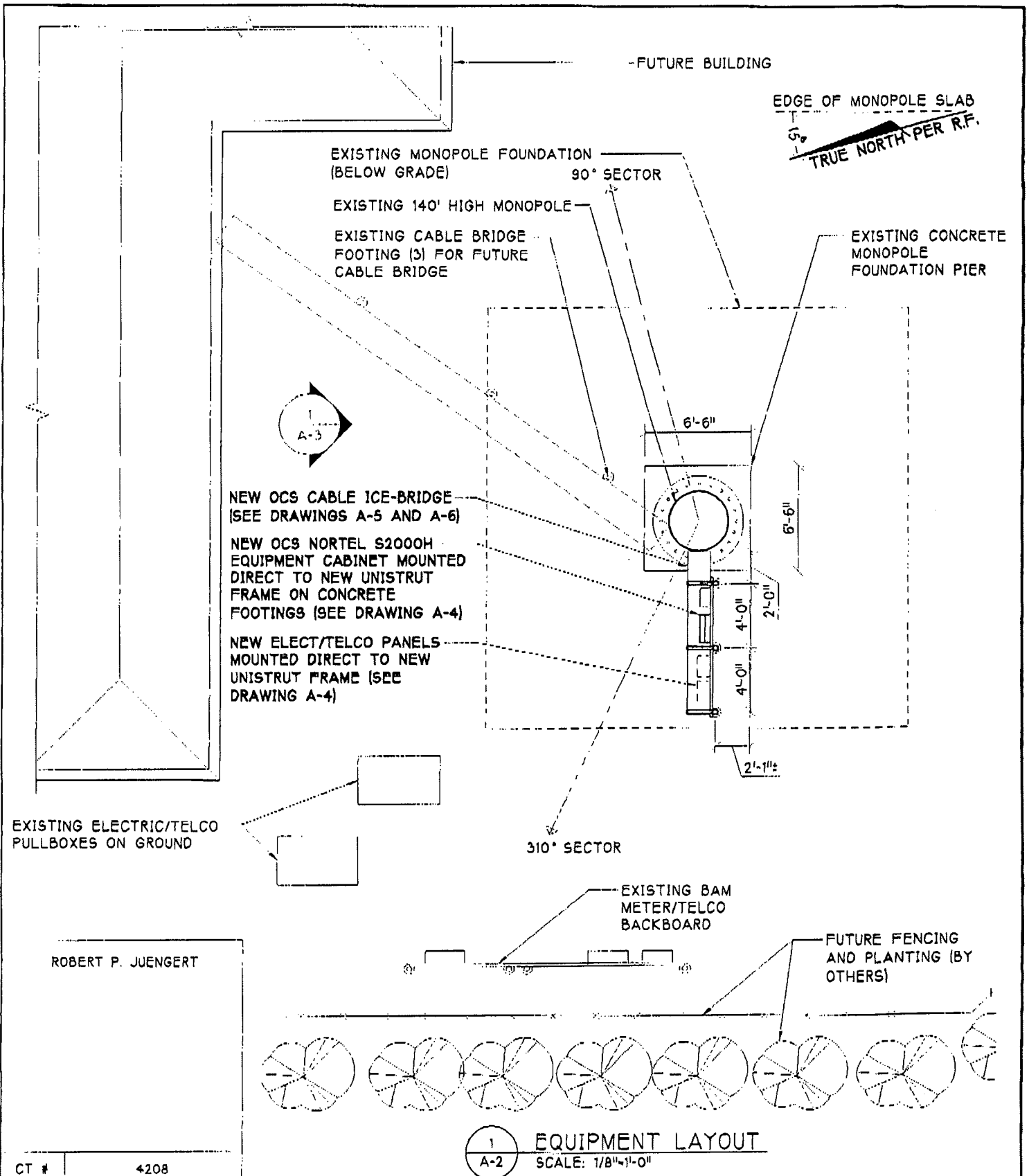
Site ID No: **CT-11-275C**

Approved By: _____ DATE: _____

CLIENT: _____

Revision No. _____ Date _____

Drawing No. **A-1**



CT # 4208

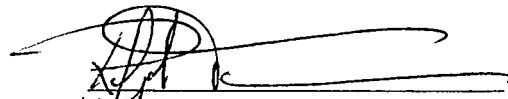
 670 North Bears Street, Building 2, Holmdel, NJ 07733 Tel: 732.739.3200 Fax: 732.739.0440	Drawing Title EQUIPMENT LAYOUT		Project: CANTON FIRE DEPARTMENT		Reviser No. Uct Drawing No.
	Client: OCS		Address: 14 CANTON SPRINGS ROAD CANTON, CT.		
P.C. Chkd. by: <i>[Signature]</i> JDJ	Ctd. by: ARCNET Project file A99.506-861A	Drawn by: BCo	Date: 10/1/99	Survey Area: B&M - CANTON Site ID No.: CT-11-275C	A-2
Approved By: _____ DATE: _____			CLIENT: _____		

Exhibit B

Letter of Authorization
14 Canton Springs Road
Canton, CT

Letter of Authorization

This is to certify that Omnipoint Communications, Inc. is hereby authorized to apply for any and all approvals, authorizations and permits from federal, State and local agencies associated with its proposed installation of telecommunications antennas and equipment on the tower located at the Canton Volunteer Fire Company at 14 Canton Springs Road in Canton, Connecticut.



Ralph Trumbull
Canton Volunteer Fire Company

10/7/99

Date

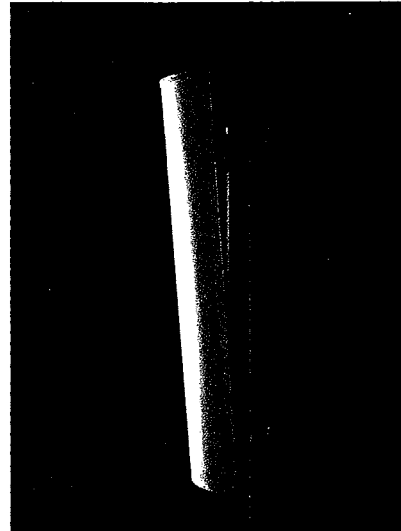
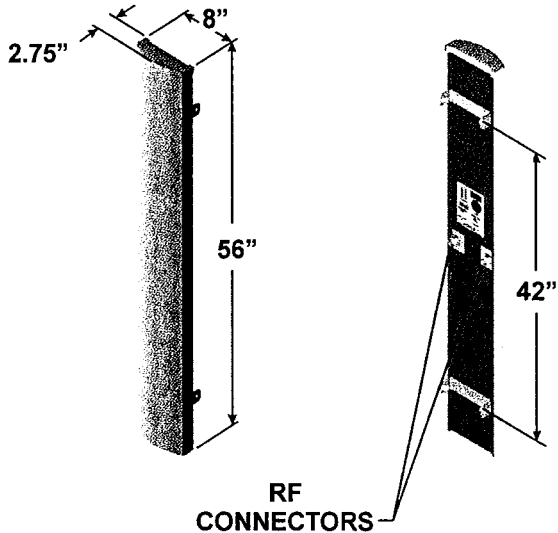
Exhibit C

Equipment Specifications

14 Canton Springs Road

Canton, CT

1850 MHz - 1990 MHz (P)



- 65° beamwidth
- 17.5 dBi gain
- ±45° DualPol™
- 56 inch

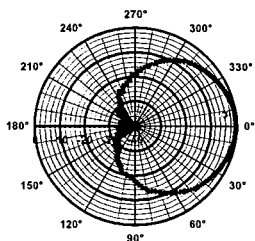
SPECIFICATIONS

Electrical	Mechanical
Azimuth Beamwidth Elevation Beamwidth Gain Polarization Port-to-Port Isolation Front-to-Back Ratio Electrical Downtilt Options VSWR Connectors Power Handling Passive Intermodulation Lightning Protection	Dimensions (L x W x D) Rated Wind Velocity Equivalent Flat Plate Area Front Wind Load @ 100 mph (161 kph) Side Wind Load @ 100 mph (161 kph) Weight
65° 6° 17.5 dBi (15.4 dBd) Slant, ±45° > 30 dB ≥ 25 dB (≥ 30 dB Typ.) 0°, 2°, 4°, 6° 1.35:1 Max 2; Type N or 7-16 DIN (female) 250 Watts CW <-147 dBc (2 tone @ +43 dBm (20W) ea.) Chassis Ground	56in x 8in x 2.75in (142 cm x 20.3 cm x 7.0 cm) 150 mph (241 km/hr) 3.1ft ² (.29 m ²) 90 lbs (400 N) 31 lbs (139 N) 18 lbs (8.2 kg)
	Note: Patent Pending and US Patent number 5, 757, 246. Values and patterns are representative and variations may occur. Specifications may change without notice due to continuous product enhancements. Digitized pattern data is available from the factory or via the web site www.emswireless.com and reflect all updates.

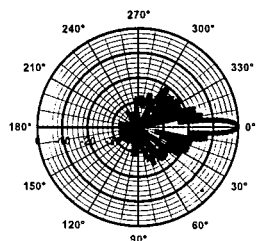
MOUNTING OPTIONS

Model Number	Description	Comments
MTG-P00-10	Standard Mount (Supplied with antenna)	Mounts to Wall or 1.5 inch to 5.0 inch O.D. Pole (3.8 cm to 12.7 cm)
MTG-S02-10	Swivel Mount	Mounting kit providing azimuth adjustment.
MTG-DXX-20*	Mechanical Downtilt Kits	0° - 10° or 0° - 15° Mechanical Downtilt
MTG-CXX-10*	Cluster Mount Kits	3 antennas 120° apart or 2 antennas 180° apart
MTG-C02-10	U-Bolt Cluster Mount Kit	3 antennas 120° apart, 4.5" O.D. pole.
MTG-TXX-10*	Steel Band Mount	Pole diameters 7.5" - 45"

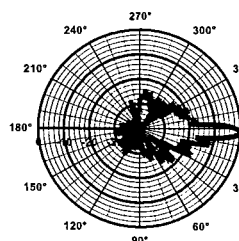
* Model number shown represents a series of products. See mounting options section for specific model number.



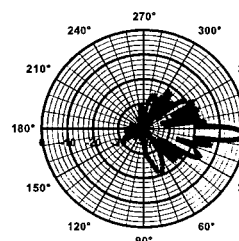
Azimuth



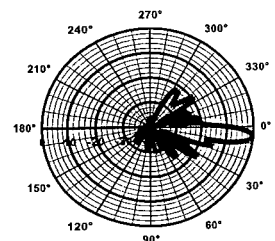
Elevation
0° Downtilt



Elevation
2° Downtilt

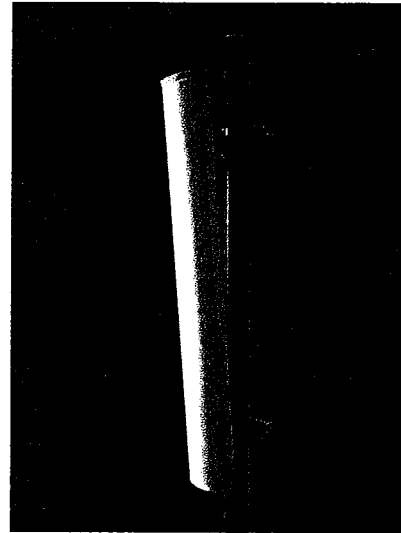
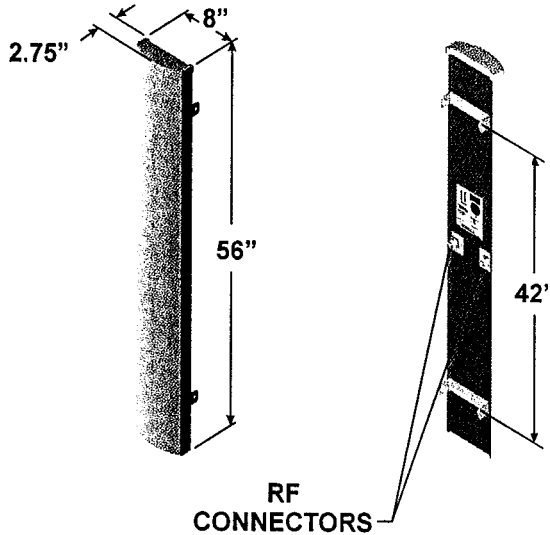


Elevation
4° Downtilt



Elevation
6° Downtilt

1850 MHz - 1990 MHz (P)



90° beamwidth

16.5 dBi gain

**±45°
DualPol™**

56 inch

SPECIFICATIONS

Electrical

Azimuth Beamwidth	90°
Elevation Beamwidth	6°
Gain	16.5 dBi (14.4 dBd)
Polarization	Slant, ±45°
Port-to-Port Isolation	≥ 30 dB
Front-to-Back Ratio	≥ 25 dB (≥ 30 dB Typ.)
Electrical Downtilt Options	0°, 2°, 4°, 6°
VSWR	1.35:1 Max
Connectors	2; Type N or 7-16 DIN (female)
Power Handling	250 Watts CW
Passive Intermodulation	<-147 dBc (2 tone @ +43 dBm {20W} ea.)
Lightning Protection	Chassis Ground

Mechanical

Dimensions (L x W x D)	56in x 8in x 2.75in (142 cm x 20.3 cm x 7.0 cm)
Rated Wind Velocity	150 mph (241 km/hr)
Equivalent Flat Plate Area	3.1ft ² (.29 m ²)
Front Wind Load @ 100 mph (161 kph)	90 lbs (400 N)
Side Wind Load @ 100 mph (161 kph)	31 lbs (139 N)
Weight	18 lbs (8.2 kg)

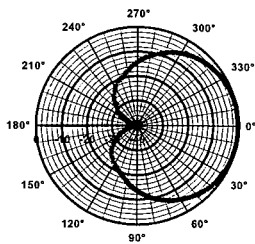
Note: Patent Pending and US Patent number 5, 757, 246.

Values and patterns are representative and variations may occur. Specifications may change without notice due to continuous product enhancements. Digitized pattern data is available from the factory or via the web site www.emswireless.com and reflect all updates.

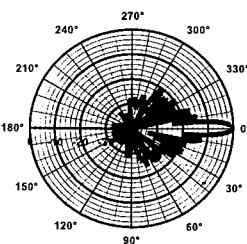
MOUNTING OPTIONS

Model Number	Description	Comments
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MTG-DXX-20*	Mechanical Downtilt Kits	0° - 10° or 0° - 15° Mechanical Downtilt
MTG-CXX-10*	Cluster Mount Kits	3 antennas 120° apart or 2 antennas 180° apart
MTG-C02-10	U-Bolt Cluster Mount Kit	3 antennas 120° apart, 4.5" O.D. pole.
MTG-TXX-10*	Steel Band Mount	Pole diameters 7.5" - 45"

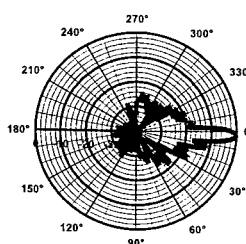
* Model number shown represents a series of products. See mounting options section for specific model number.



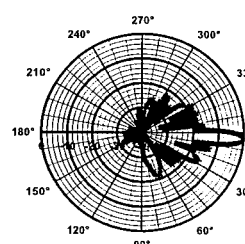
Azimuth



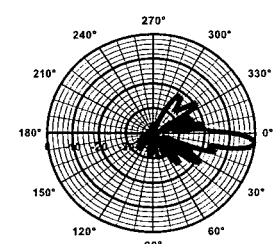
Elevation
0° Downtilt



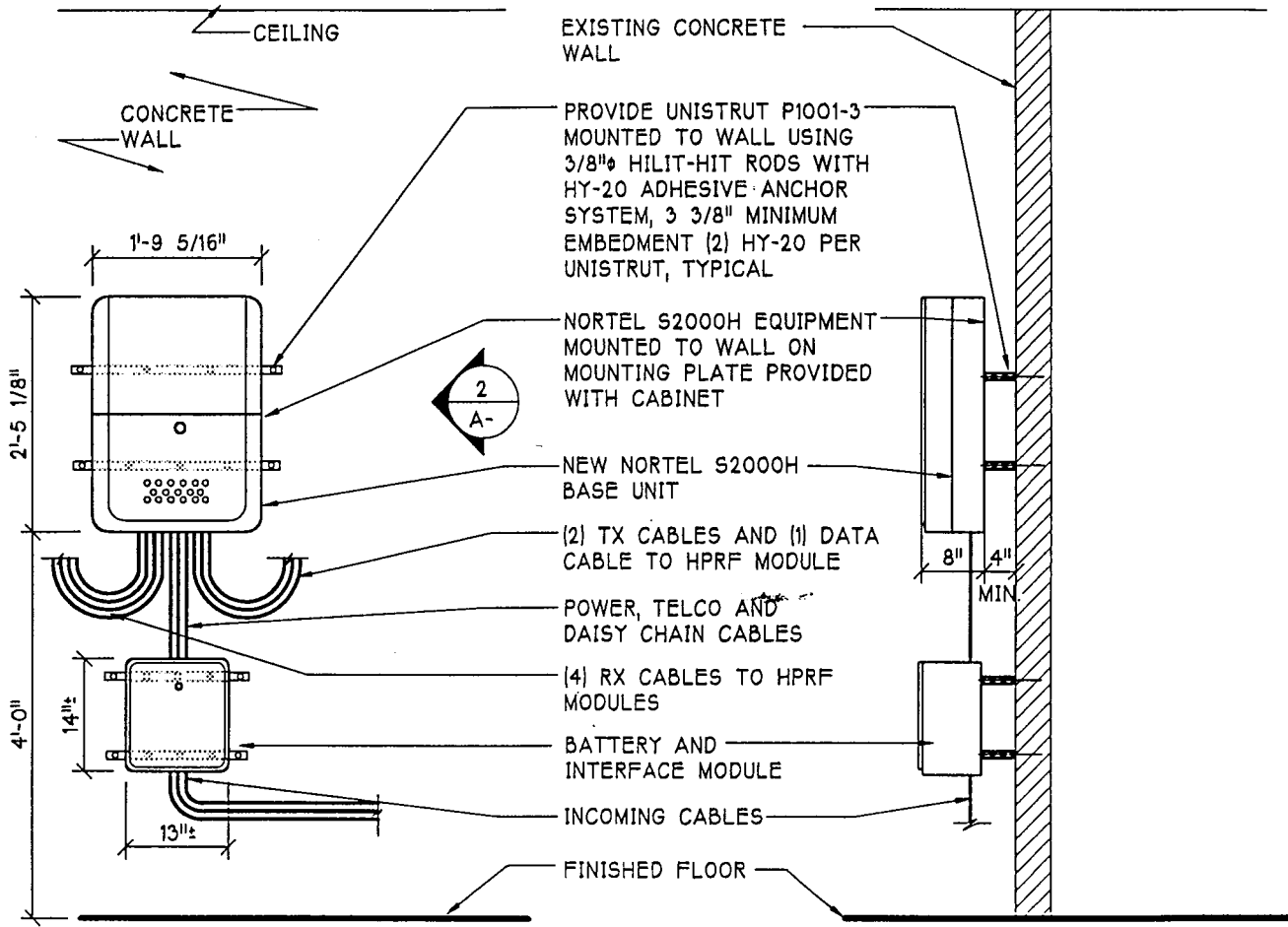
Elevation
2° Downtilt



Elevation
4° Downtilt



Elevation
6° Downtilt



1 FRONT ELEVATION
A-# SCALE: 1/2" 1'-0"

2 SIDE ELEVATION
A-# SCALE: 1/2" 1'-0"

ROBERT P. JUENGERT

CABINET WEIGHT SPECIFICATIONS
BASE UNIT = 74.8 LBS.

NOTE:
NORTEL SHALL BE RESPONSIBLE TO VERIFY INFORMATION FOR ALL MOUNTS AS REQUIRED.

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670 North Beers Street, Building 2, Holmdel, NJ 07733 Tel: 732.739.3200 Fax: 732.739.0440		Client: OCS		Approved By:		<table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>																	
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Chkd. by:		ARCNET Project No.:		SAC: _____ DATE: _____		OWNER: _____ DATE: _____																	
Drawn:		Date:		OWNER: _____ DATE: _____		OWNER: _____ DATE: _____																	

Exhibit D

Power Density Calculations

14 Canton Springs Road

Canton, CT

Technical Memo

To: Brendan Sharkey
From: Chetan Dhaduk (Radio Engineering Consultant)
cc: Mike Fulton
Subject: Power Density Report for CT11275C
Date: 10/8/99

1. Introduction:

This report is the result of an Electromagnetic Field Intensities (EMF - Power Densities) study for the proposed OMNIPOINT Communications Inc. PCS antenna installation on BAM Facility @ 14 Canton Springs Road, Canton, 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 OCI transmitters are in the 1930-1950 MHz frequency band.
- 2) The antenna cluster consists of two sectors, with 1 antenna per sector. The model number for each antenna is EMS RR-65-18-02DP and EMS RR-90-17-02DP
- 3) The antenna height is 100 feet centerline.
- 4) The maximum transmit power from each sector is 812.14 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 OMNIPOINT Communications Inc., PCS antenna installation at the tower is 0.017818 mw/cm^2 . This value represents only 1.7818% of the Maximum Permissible Emission (MPE) set forth in the FCC/ANSI/IEEE C95.1-1991 standard of 1000 microwatts per square centimeter ($\mu\text{w/cm}^2$). The combined power density for Omnipoint, BAM, SNET, Fire Dept. & Nextel will remain well below the FCC Standard. Details are shown in the attachment. Furthermore, the proposed antenna location for Omnipoint Communications at BAM Facility @ 14 Canton Springs Road, Canton, 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 installation on BAM Facility @ 14 Canton Springs Road, Canton, CT

Region 11 - Connecticut	
Power Density Calculation - Worst Case	
Base Station TX output	15.85 W
Number of channels	1
Antenna Model	EMS: RR-65-18/ RV-65-18
Antenna Gain	17.5 dBi
Cable Size	1/2"
Cable Length	6 ft
Connector loss	0.2 dB
Cable Loss per foot	0.034
Total Cable Loss	0.204 dB
Total Attenuation	0.404 dB
Total EIRP per channel	59.10 dB
Total EIRP per sector	59.10 dB
Ground Reflection	1.6
Frequency	1930 MHz
Antenna Height	100 ft
nsg	17.096
Power Density (S) =	0.017818 mW / cm ²
% MPE =	1.7818%

Combined Power Density With
 BAM, SNET, Fire Dept. & Nextel
 Combined %MPE With Sprint & Nextel

1.756148mW/cm²

22.1618%

Equation Used:

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

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grf = ground reflection

Power Density for installation on BAM Facility @ 14 Canton Springs Road, Canton, CT

Inputted Parameters

Antenna Type: EMS_RR651800DP
 Antenna Centerline Height (Feet): 210
 Mechanical Downtilt (Degrees): 0
 Base Station TX Power (dBm): 42
 Coax and Connector Loss (dB): 0.404
 Number of Channels per Sector (TXs): 1

Power per Sector (EIRP Watts)	Distance from Base to Location (ft)	Height at Location, Relative to Base (ft)	Number of Times Below Federal Safety Limit of 1.0 mW/cm ²
812.1	1	5	681,100
812.1	10	5	393,200
812.1	100	5	113,600
812.1	500	5	327,600
812.1	1000	5	267,600
812.1	5000	5	213,000

Notes: Equations given in "FCC OET Bulletin 65, Edition 97-01", in conjunction with manufactures specific antenna data were used in the field strength calculations. The resultant values represent worst case levels for field strength intensity.