STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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

August 18, 1999

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

Re: EM-OCI-025-990719 - Omnipoint Communications notice of intent to modify an existing telecommunications facility located at 751 Higgins Road in Cheshire, Connecticut.

Dear Mr. Sharkey:

At a public meeting held on August 16, 1999, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility in Cheshire, Connecticut, 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 notice dated July 19, 1999. 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 frequency 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 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 of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 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/RKE/tsg

c: John L. Salomone, Town Manager, Town of Cheshire

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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

July 30, 1999

John L. Salomone
Town Manager
Town of Cheshire
Town Hall
84 South Main Street
Cheshire, CT 06410

RE: EM-OCI-025-990719 - Omnipoint Communications notice of intent to modify an existing telecommunications facility located at 751 Higgins Road in Cheshire, Connecticut.

Dear Mr. Salomone:

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 tentatively scheduled for Monday, August 16, 1999, at 1:30 p.m. in Hearing Room Two, 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/tsg

Enclosure: Notice of Intent

FILE COPY

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EM-OCI-025-990719

OMNIPOINT
COMMUNICATIONS INC.

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

July 19, 1999

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

Dear Chairman Gelston,

Enclosed is a Notice of Intent to Modify an Exempt Telecommunications Tower and Associated Equipment for facilities owned and operated by AT&T Corp. ("AT&T") at 751 Higgins Road in Cheshire, Connecticut.

The proposed modification can be generally described as the addition of "cellular type" PCS antenna array for Omnipoint Communications, consisting of four panel antennas and base station equipment. Omnipoint Communications holds the "A Block" 1900 MHz "Wideband" PCS license for the entire State of Connecticut. The Omnipoint PCS wireless service is a voice-data system which will provide paging, data and voice communications services.

The top of the proposed antennas will be below the top of the existing tower. No changes will be made to the tower structure. The base station equipment will be attached to the tower structure near its base.

The attached pages detail the required information for this location. As shown in the attachments, the proposed addition meets all the necessary criteria established in the Regulations of Connecticut State Agencies Section 16-50j-72 (b) (2), and is an exempt facility pursuant to Section 16-50j-73.

Please record me as the contact for Omnipoint Communications in this matter and in all correspondence from the Council, except technical questions which may be directed to Dave Weinpahl of Arcnet Architects, Inc. at phone # (732) 739-3200.

Thank you in advance for your cooperation.

Sincerely,

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

enclosures
cc: Sandra R. Mouris, Mayor

OMNIPOINT
COMMUNICATIONS INC.

NOTICE OF EXEMPT MODIFICATION

751 Higgins Road, Cheshire, 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, Omnipoint Communications, Inc. ("Omnipoint") hereby notifies the Connecticut Siting Council that it intends to modify an existing communications facility by permitting the installation of a Personal Communications Services (PCS) antenna assembly and its associated equipment to an existing communications tower. This antenna assembly and equipment will be owned, operated and maintained by Omnipoint. The site is located at 751 Higgins Road in Cheshire, Connecticut.

Background

The proposed modifications are at the site of a self supporting 250-foot lattice tower, with horn antennas extending to 268 feet AGL and associated equipment located on a compound which includes a 40-foot underground facility. A site plan and elevation drawings are attached in Exhibit A.

The existing tower and surrounding property is owned and operated by AT&T. Omnipoint and AT&T have entered into a lease agreement which authorizes Omnipoint's installation of four panel-type antennas as well as its associated equipment on the tower. The parties have conducted a structural analysis which indicates that the tower is capable of supporting this installation.

The tower currently holds the following antenna assemblies: 1) two horn-type antennas at the top extending to 268 feet AGL; 2) an assembly of six antennas at the top not extending above the height of the tower owned and operated by SNET Mobility ("SNET"); 3) an additional assembly of six antennas located at the top of the tower owned and operated by Bell Atlantic Mobile ("BAM"); and 3) three mobile antennas at lower heights owned by others.

Discussion

The purpose of this modification is to serve the public with Wideband PCS services while accommodating the Council's policy of encouraging co-location on existing telecommunications towers.

Omnipoint proposes to install four panel type antennas, two per sector, in two clusters at 60 and 150 degrees. The top of the proposed antennas will be 230 feet AGL. The proposed antennas are each a DAPA Model #58210, and its specifications are included in Exhibit B. The frequencies used are in the 1930-1945MHz PCS band. The associated equipment cabinet is a Nortel 2000H which measures approximately 28 inches high and 22 inches wide. The cabinet will be mounted to the tower approximately 20 feet AGL. The equipment specifications for this installation are shown in Exhibit B.

Attached as Exhibit C is a power density analysis which calculates existing and proposed non-ionizing radiation levels. The current Connecticut (and ANSI/IEEE) power density level standards for non-ionizing radiation are also shown in Exhibit C. The levels shown indicate the total power density in milliwatts per square centimeter. These levels have been calculated at both the tower base and at the site boundary and include the existing SNET and BAM antennas in its calculations. These calculations conform to the procedures described by FCC OST Bulletin No. 65, and the levels identified in this case are well below all applicable standards.

Conclusion

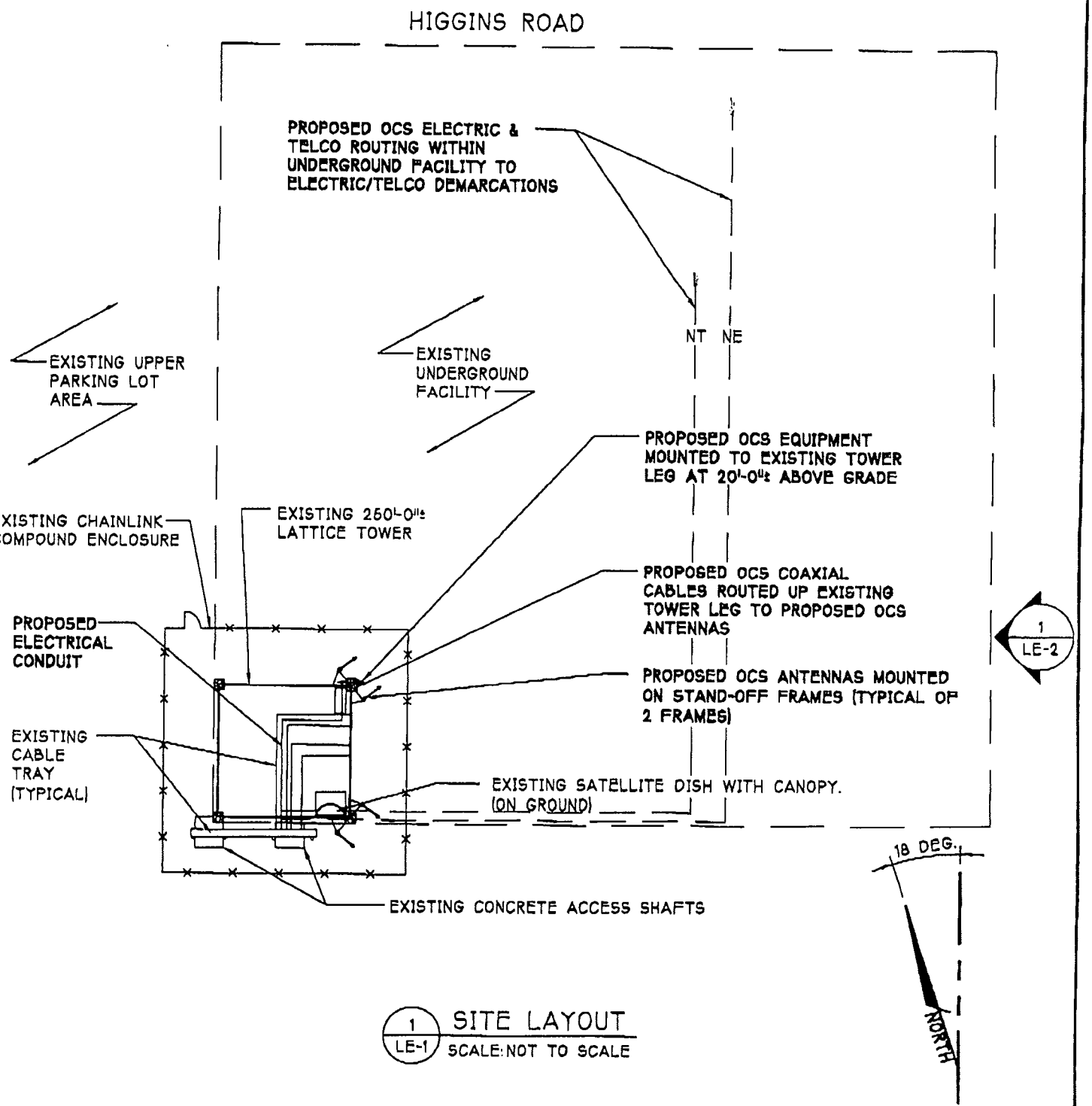
The proposed additions do not constitute a "modification" of an existing facility as defined in the Connecticut General Statutes Section 16-50i(d). There will be no change to the tower height above the previously approved allowable height or extension of the boundaries of the site. The tower is structurally sufficient to support the proposed antenna. There will be no increase in noise levels at the site's boundary by six (6) decibels or more and the total radio frequency electromagnetic radiation is not at or above the standard set forth in Section 22(a)-162 of the Connecticut General Statutes. This addition will not have a substantially adverse environment effect.

For these reasons, Omnipoint requests that the Council acknowledge that this Notice of Modification meets the Council's exemption criteria.

OMNIPOINT
COMMUNICATIONS INC.

EXHIBIT A

1) SITE PLAN
2) ELEVATION



1 / LE-1 SITE LAYOUT
SCALE: NOT TO SCALE

NOTE: EXHIBITS SUBMITTED ARE A CONCEPTUAL REPRESENTATION OF THE LEASE AGREEMENT ONLY. ACTUAL CONSTRUCTION DOCUMENTATION MAY VARY TO COMPLY WITH ALL APPLICABLE CODES.

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

Drawing Title: SITE LAYOUT
Client: OCS

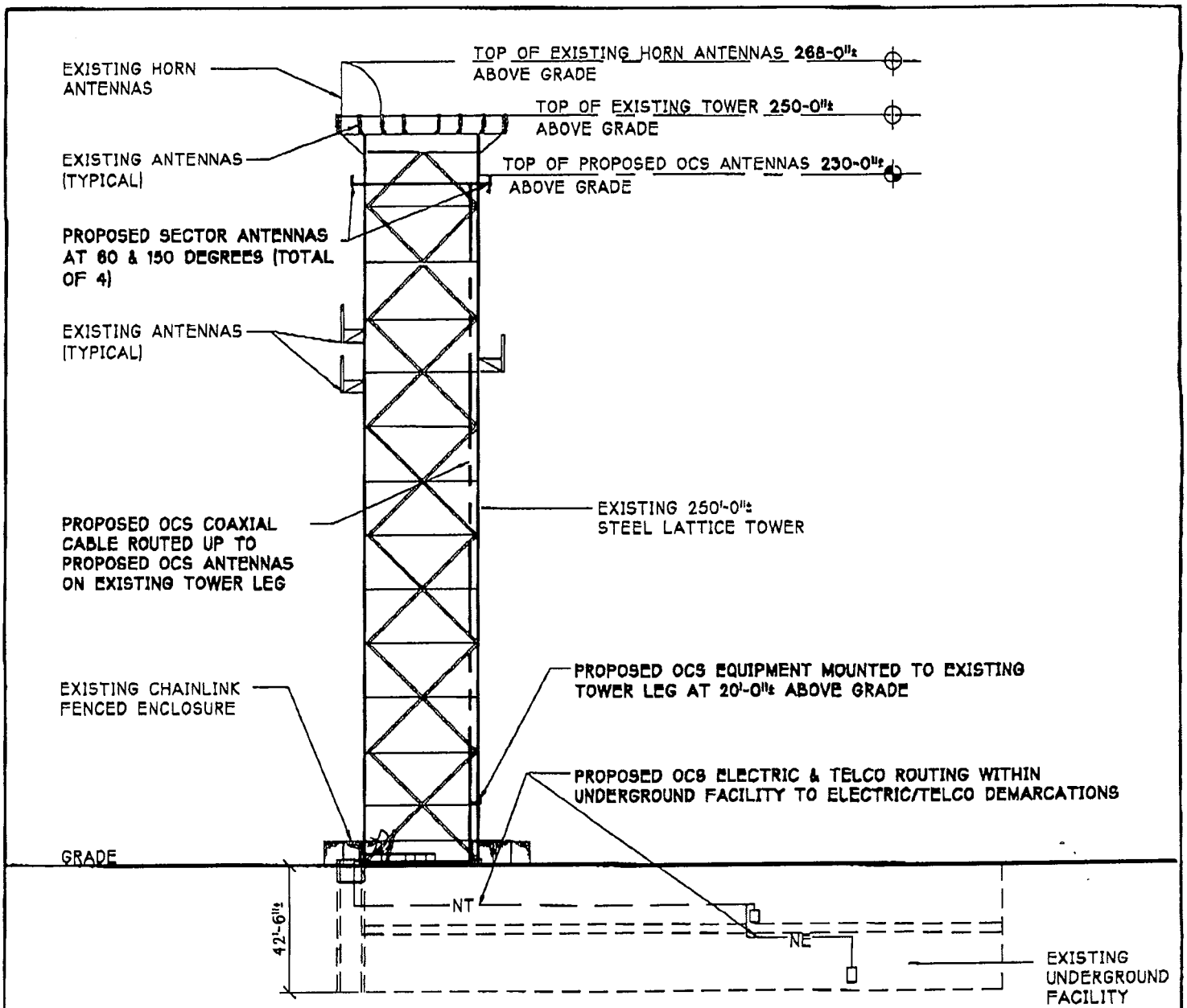
Project: AT&T CHESHIRE TOWER
Address: 751 HIGGINS RD. CHESHIRE, CT
Approved By:
PROJ. MGR: _____ DATE: _____
R.F. ENGR: _____ DATE: _____
SAC: _____ DATE: _____
OWNER: _____ DATE: _____

Revision No.	Date
REV3 KBa	7/15/98
REV2 KBa	7/6/99
REV#1 KK	5/18/98

Search Area: CHESHIRE/ROUTE 8
Site ID No.: CT-11-220A

P.C.:	P.C. Chkd.:	Chkd. by:	ARCNET Project No.	Drawn	Date:
JDi			A99.506.824A	KK	3/16/99

Drawing No.: LE-1



1 / LE-2 ELEVATION

SCALE: NOT TO SCALE

NOTE: EXHIBITS SUBMITTED ARE A CONCEPTUAL REPRESENTATION OF THE LEASE AGREEMENT ONLY. ACTUAL CONSTRUCTION DOCUMENTATION MAY VARY TO COMPLY WITH ALL APPLICABLE CODES.

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

Drawing Title: ELEVATION

Client: OCS

Project: AT&T CHESHIRE TOWER
Address: 751 HIGGINS RD, CHESHIRE, CT

Approved By:
PROJ. MGR: _____ DATE: _____
R.F. ENGR: _____ DATE: _____
SAC: _____ DATE: _____
OWNER: _____ DATE: _____

Revision No.	Date
REV3 KBa	7/15/99
REV2 KBa	7/6/99
REV#1 KK	6/18/99

Search Area: CHESHIRE/ROUTE 8
Site ID No.: CT-11-220A

P.C.	P.C. Check	Check by	ARCNET Project No.	Drawn	Date
JDi			A99.506.824A	KK	3/16/99

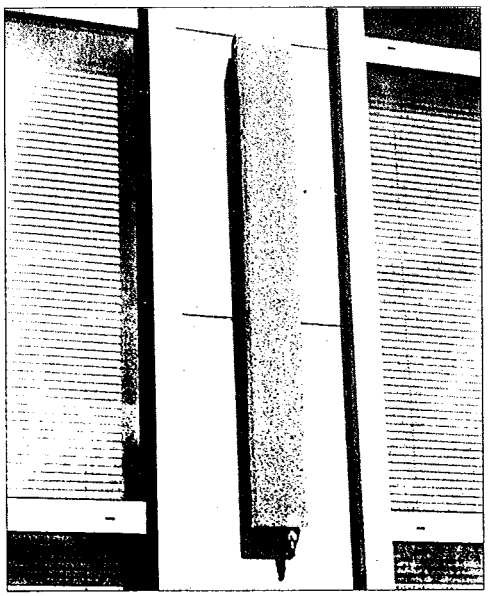
Drawing No. LE-2

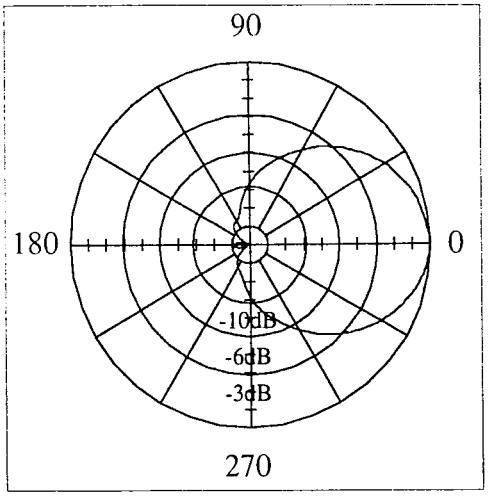
OMNIPOINT
COMMUNICATIONS INC.

EXHIBIT B

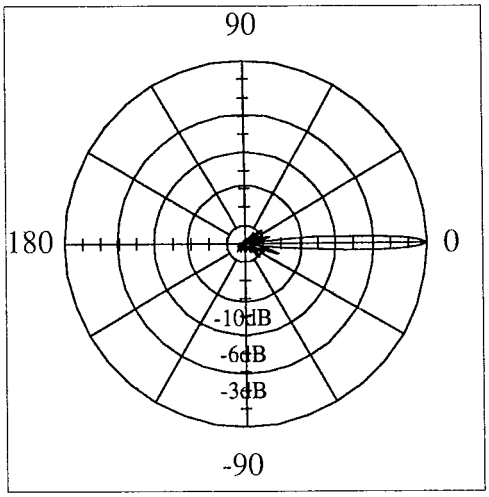
EQUIPMENT SPECIFICATIONS

Model 58000 / 58010 92°, 15 dBd Panel





H-plane



E-plane

GENERAL CHARACTERISTICS

Frequency Range	1710 - 1990 MHz
Impedance	50 Ω
VSWR	< 1.4:1
Polarization	Vertical
Rated Power	500 W

ELECTRICAL CHARACTERISTICS

Beamwidth:	H-plane	92° ± 3° (at -3 dB)
	E-plane	7° ± 1° (at -3 dB)
Maximum / Minimum Gain		15 dBd / 14 dBd
Electrical Downtilt		0° (available -1° to -15°)
Side Lobes		< -15 dB
Front-to-Back Ratio		< -25 dB

MECHANICAL CHARACTERISTICS

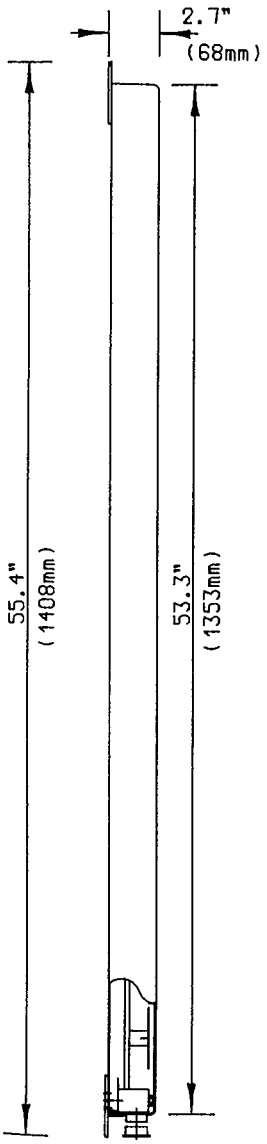
Height x Width x Depth	53.3" x 6.3" x 2.7" (1353 x 159 x 68 mm)
Weight	11 lbs (5 kg)
Wind Survival Rating	125 mph (200 km/h)
Wind Load (at 100 mph)	363 N (frontal F_1) 160 N (lateral F_2)
Flat Plate Equivalent Area	2.31 ft^2 (0.22 m^2)
Connector Types (Female)	Type N, or 7/16 DIN
Materials: Antenna / Radome	Aluminum / ABS

Model 58000 / 58010 92°, 15 dBd Panel

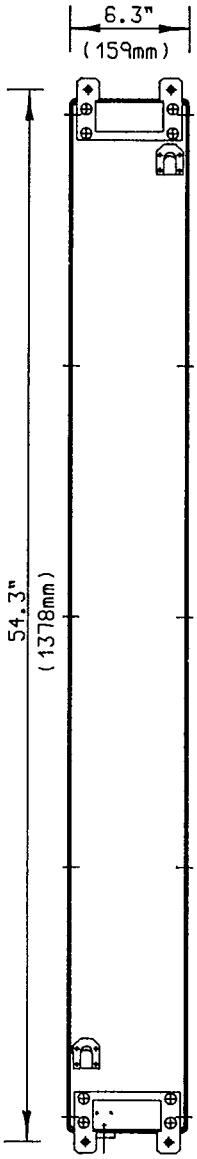
MOUNTING HARDWARE (INFORMATION AND DRAWINGS)	
Pipe Mount Brackets	Fix 903 (1.25" - 3.5" OD pipe)
Mechanical Tilt Bracket (optional)	Model TB-6

NOTE: Mechanical specifications on these pages would apply to all other electrical tilt and/or connector location options.

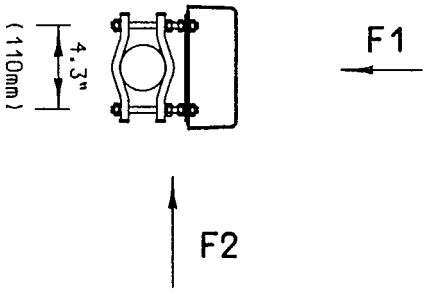
SIDE VIEW

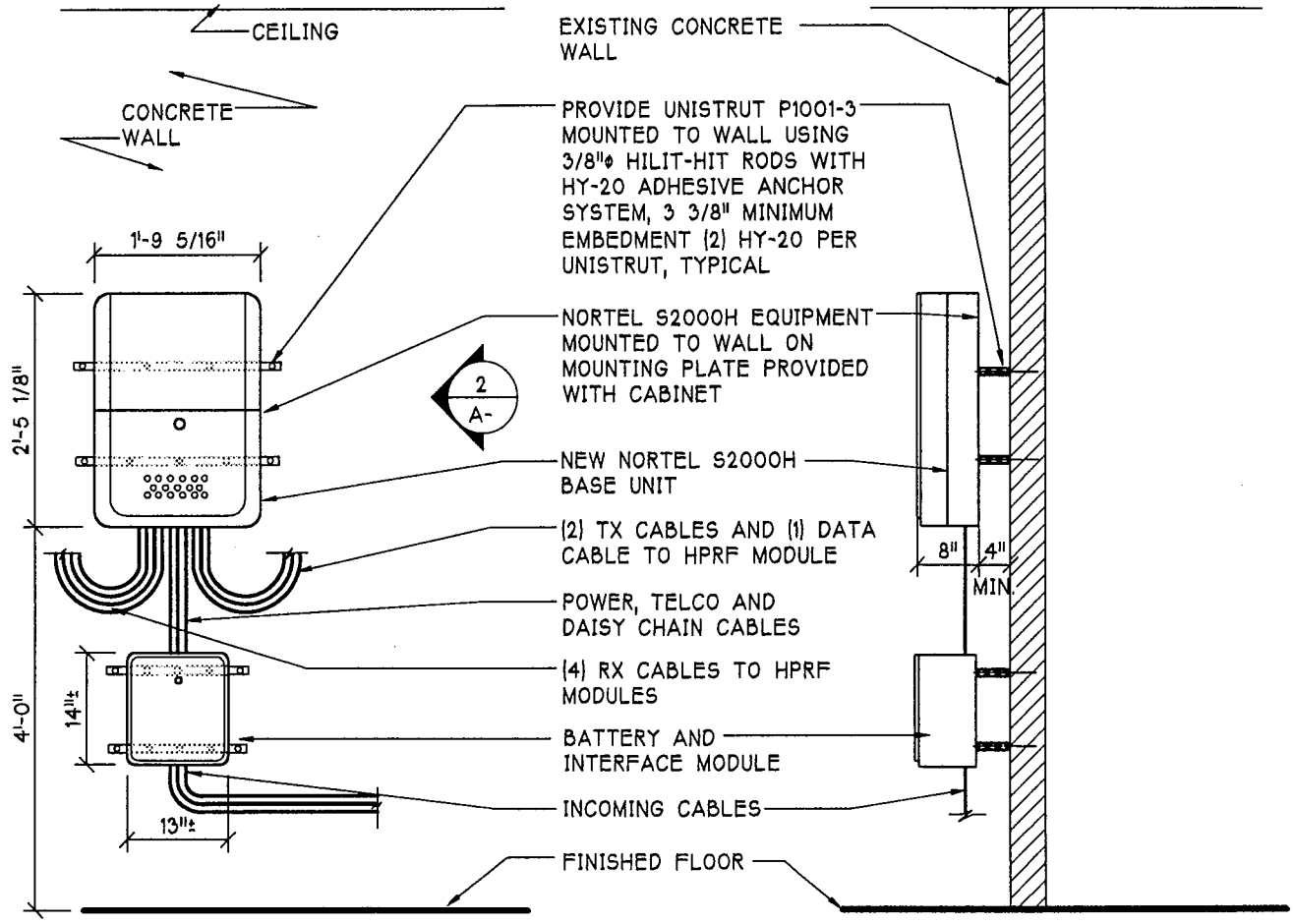


REAR VIEW



TOP VIEW





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

2 / A-# SIDE ELEVATION
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.

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

Drawing Title:

Client: OCS

Project:
Address:

Approved By:
PROJ. MGR: _____ DATE: _____
R.F. ENGR: _____ DATE: _____
SAC: _____ DATE: _____
OWNER: _____ DATE: _____

Revision No. | Date:

Drawing No.

Search Area:
Site ID No.:

P.C.	P.C. Chkd.	Chkd. by:	ARCNET Project No.	Drawn:	Date:

OMNIPOINT
COMMUNICATIONS INC.

EXHIBIT C

POWER DENSITY CALCULATIONS

OMNIPOINT COMMUNICATIONS
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 CT11220A
Date: 07/01/99

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 AT & T Tower @ 571 Higgins Road Cheshire, 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 2 antenna per sector. The model number for each antenna is DAPA 58210
3) The antenna height is 210 feet centerline.
4) The maximum transmit power from each sector is 723.8 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 are on the order of **1,000** to **10,000** times less than the FCC/ANSI/IEEE C95.1-1991 standard of 1000 microwatts per square centimeter ($\mu w/cm^2$). Details are shown in the attachment. Furthermore, the proposed antenna location for Omnipoint Communications at AT & T Tower @ 571 Higgins Road Cheshire, 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 AT T Tower @ 571 Higgins Road, Cheshire, CT

Region 11 - Connecticut
Power Density Calculation - Worst Case

Base Station TX output	15.85 W		42.00	
Number of channels	1			
Antenna Model	DAPA: 58210			
Antanna Gain	17 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	58.60 dB		723.82	W
Total EIRP per sector	58.60 dB		723.82	W
Ground Reflection	1.6			
Frequency	1930 MHz			
Antenna Height	210 ft		6400.8	cm
nsg	16.596			
Power Density (S) =	**0.003601 mW / cm^2**			
% MPE =	**0.3601%**			

Combined Power Density With BAM & SNET	*0.534 mW/cm^2*
Combined %MPE With BAM & SNET	*9.4318%*

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

Power Density Calculation for AT T TOWER @571 higgins Road, Cheshire, CT

Inputted Parameters

Antenna Type:	DAPA_58210
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/cm²
723.8	1	5	175,000
723.8	10	5	956,400
723.8	100	5	24,000
723.8	500	5	6,400
723.8	1000	5	6,300
723.8	5000	5	15,400

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.