



Northeast Utilities System

TELECOPIER COVER LETTER (FAX)

ADM4761-1 REV. 3 05

DATE 10/27/98	TIME	TOTAL NUMBER OF PAGES BEING SENT: (including this page)
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TO:

COMPANY CONNECTICUT SPRING COUNCIL	
DEPARTMENT/DIVISION	
ATTENTION JOEL RINEBOLD	TELEPHONE NUMBER ( )
TELECOPIER TELEPHONE NUMBER	(INCLUDE AREA CODE) (860) 827-2950

FROM:

NAME WAYNE HAMEL	ROOM NO.	TELEPHONE NUMBER * (860) 665-2610
DEPARTMENT/DIVISION		
TELECOPIER TELEPHONE NUMBER	(INCLUDE AREA CODE) (860) 665-2820	

\* IF YOU DID NOT RECEIVE ALL OF THE PAGES, PLEASE CALL THIS NUMBER.

COMMENTS/DIRECTIONS

RE: LETTER ON OUNIPONT TOWER FOUNDATION  
REINFORCEMENT AT CLP NEWTOWN FACILITY AS  
DISCUSSED WITH DAWN VENORA

Important Notice

The information contained in this facsimile transmittal is information intended only for the use of the individual or entity named above, and may be privileged, confidential and/or proprietary. If the reader of this message is not the intended recipient, you are hereby notified that any review, distribution or copying of the attached communication is unauthorized and strictly prohibited. If you have received this communication in error, please notify us by telephone at once and destroy the facsimile message received. Thank you



**Northeast  
Utilities System**

107 Selden Street, Berlin, CT 06037

Northeast Utilities Service Company  
P.O. Box 270  
Hartford, CT 06141-0270  
(860) 665-5000

**RECEIVED**

October 27, 1998

OCT 28 1998

**CONNECTICUT  
SITING COUNCIL**

Mr. Joel M. Rinebold  
Executive Director  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

Re: DOCKET NO. 144 - The Connecticut Light and Power Company Certificate of Environmental Compatibility and Public Need for a telecommunications facility located on 20 Barnabas Road in the Town of Newtown, Connecticut. Notice of Intent to Modify Facility. (EM-OCT-007-980728)

Dear Mr. Rinebold:

This letter is to inform you of Omnipoint Communications ("Omnipoint") plans, in cooperation with The Connecticut Light and Power Company ("CL&P") to add additional concrete piers atop the existing footings for the tower located at the subject location. Recent analysis of the existing tower by Northeast Utilities' Civil Engineering Department indicates that the design loading on the tower foundations will be exceeded with the addition of the Omnipoint antennas.

In order to provide adequate loading, additional concrete slabs will be constructed atop the existing tower piers. These slabs will provide the necessary weight on the existing piers to ensure that the foundation loading will be sufficient for the new antenna load. The new slabs will be constructed atop the existing three piers and will be contained within the fenced area of the facility. There will be no impact to the tower height, and no expansion to the fenced area.

Attached to this letter is a drawing showing the location of the tower at the Newtown facility, and a sketch (SKRAD101498, sheets 1 through 3) showing the new slabs and how they will be installed atop each of the three existing piers. Some minor grading will be required to provide a level surface onto which the slab will be constructed. The contractor plans to begin construction of these new slabs this week.

Please contact either myself (860) 665-2610 or Dan Venora (860) 665-3395 should you have any questions on the work which is to be performed, or if you believe that there are additional regulatory issues to be addressed. Thank you for your attention to this matter.

Sincerely yours,

Wayne P. Hamel  
Manager - Telecommunications Engineering

Attachment

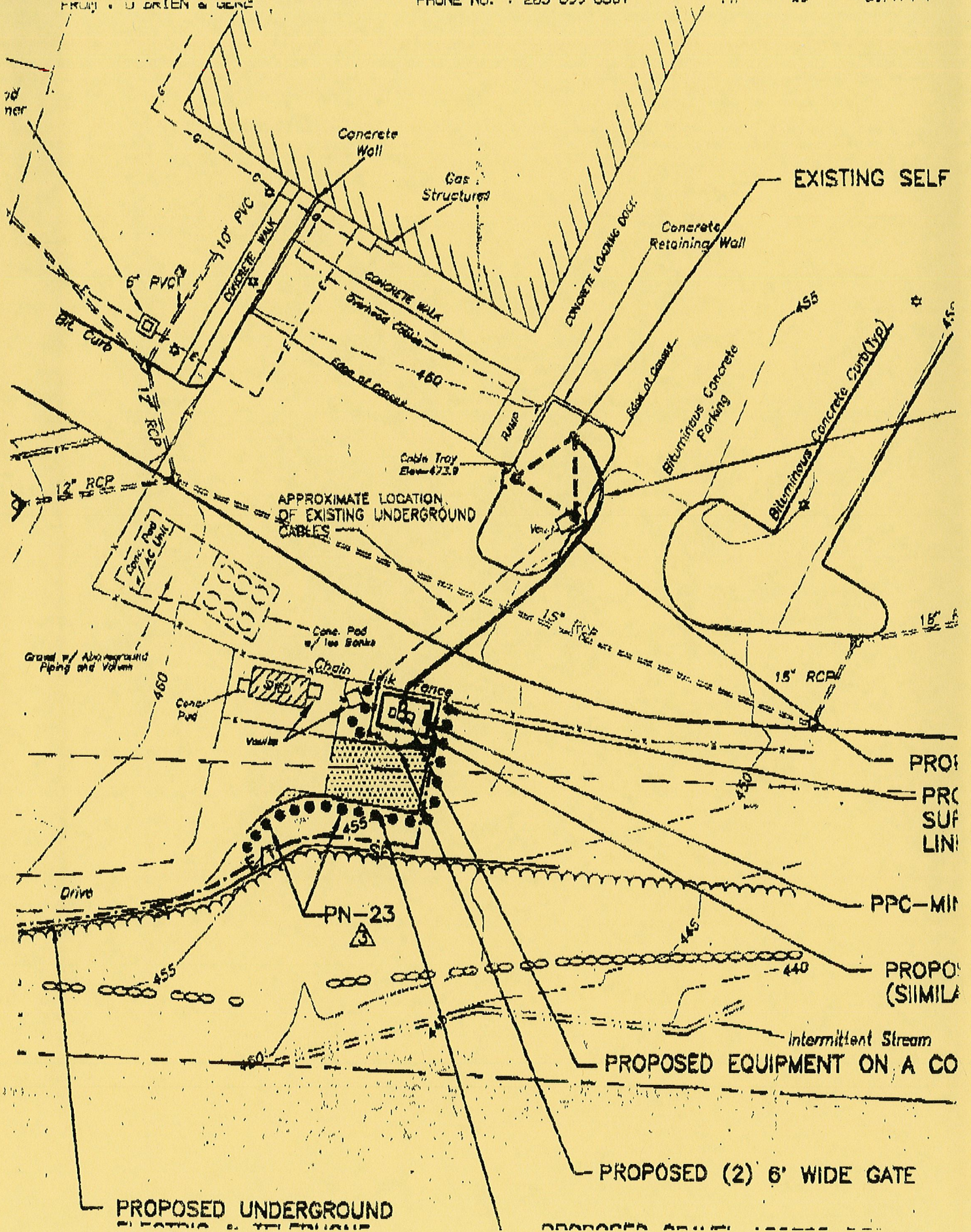
cc: R. E. Carberry  
D. P. Venora

Jun. 24, 1997 7:50AM  
FROM: J. ORLEN & ASSOC

SPRINT PCS

PHONE NO. : 203 699 6337

No. 6515. 19P. 4:529PM P4



PROPOSED UNDERGROUND  
ELECTRIC & TELEPHONE

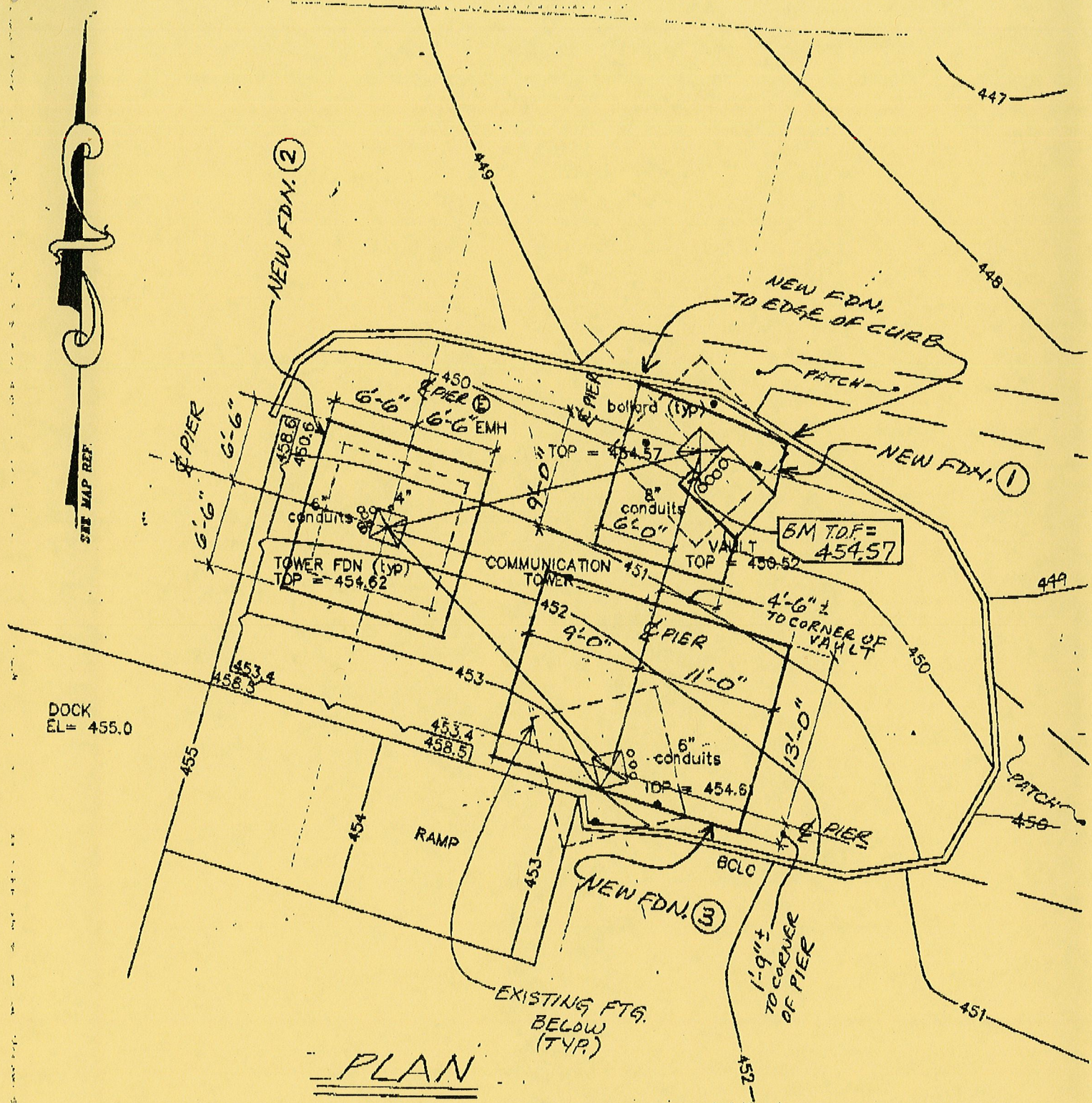
PROPOSED (2) 6' WIDE GATE

PROPOSED  
SUB  
LINE

PPC-MIN

PROPOSED  
(SIMILAR)

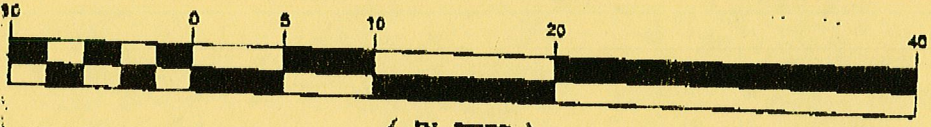
Intermittent Stream  
PROPOSED EQUIPMENT ON A CONCRETE PAD



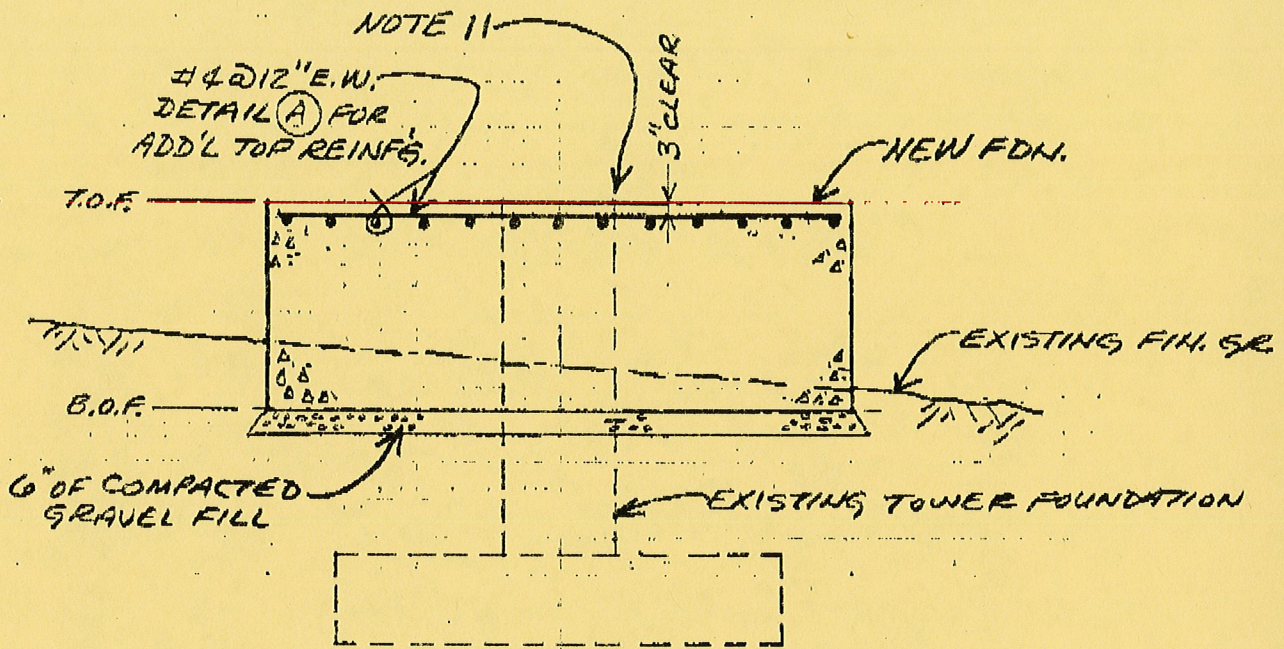
PLAN

THE CONNECTICUT LIGHT & POWER COMPANY  
 MICROWAVE TOWER FOUNDATION MODIFICATIONS  
 AT NEWTOWN SERVICE CENTER FOR OMNIPONT ANTENNAS  
 R. Drasdis 10/14/98 Sketch SKRAD101498, Sht. 1 of 3

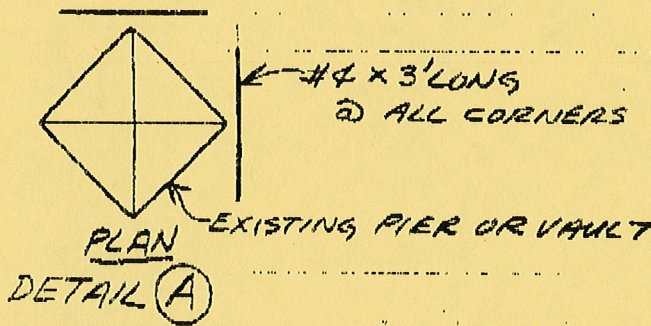
GRAPHIC SCALE



( IN FEET )  
 1 inch = 10 ft.



TYPICAL SECTION THROUGH NEW FDN.



NEW FOUNDATION INFORMATION:

	FDN. ①	FDN. ②	FDN. ③
T.O.F.	454.5	454.5	454.5
B.O.F.	448.5	450.0	450.5
MIN. VOLUME OF NEW CONCR.	21 C.Y.	27 C.Y.	40.5 C.Y.

THE CONNECTICUT LIGHT & POWER COMPANY  
 MICROWAVE TOWER FOUNDATION MODIFICATIONS  
 AT NEWTOWN SERVICE CENTER FOR OMNIPPOINT ANTENNAS  
 R. Drasdis 10/14/98 Sketch SKRAD101498, Sht. 2 of 3



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

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

August 11, 1998

Mr. Brian Weinstein  
Director of Site Acquisition  
Omnipoint Communications  
25 Van Zant Street, Suite 18E  
East Norwalk, CT 06855

Re: DOCKET NO. 144 - The Connecticut Light and Power Company Certificate of Environmental Compatibility and Public Need for a telecommunications facility located on 20 Barnabas Road in the Town of Newtown, Connecticut. Notice of Intent to Modify Facility. (EM-0CI-007-980728)

Dear Mr. Weinstein:

At a public meeting held on August 6, 1998, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility in Newtown, Connecticut, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies. This acknowledgment does not address the issuance of a building permit which may be required by the Town of Newtown.

The proposed modifications are to be implemented as specified here and in your notice dated July 23, 1998. 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/jlh

c: Honorable Herbert C. Rosenthal, First Selectman, Town of Newtown

EDMOND TOWN HALL  
45 MAIN STREET  
NEWTOWN, CONNECTICUT 06470  
TEL. (203) 270-4201  
FAX (203) 270-4205



HERBERT C. ROSENTHAL  
FIRST SELECTMAN

**TOWN OF NEWTOWN**  
OFFICE OF THE FIRST SELECTMAN

VIA FAX & FIRST CLASS MAIL

August 4, 1998

**RECEIVED**

AUG - 5 1998

CONNECTICUT  
SITING COUNCIL

Mr. Joel M. Rinebold  
Executive Director  
State of Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

Re: DOCKET NO. 144 - The Connecticut Light and Power Company Certificate of Environmental Compatibility and Public Need for a telecommunications facility located on 20 Barnabas Road in the Town of Newtown, Connecticut. Notice of Intent to Modify Facility (EM-OCI-007-980728)

Dear Mr. Rinebold:

I have received your notice regarding Omnipoint Communications request to modify an existing telecommunications facility located on 20 Barnabas Road in Newtown. The only comment I have is that the applicant be instructed to apply for applicable permits with the Town of Newtown Building Department.

Thank you for your assistance in this matter.

Sincerely,

A handwritten signature in black ink, which appears to read "Herbert C. Rosenthal". The signature is written in a cursive, flowing style.

Herbert C. Rosenthal  
First Selectman

jan

cc: Brian Weinstein, Omnipoint Communications, Inc.



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

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

July 30, 1998

Honorable Herbert C. Rosenthal  
First Selectman  
Town of Newtown  
Edmond Town Hall  
45 Main Street  
Newtown, CT 06470

Re: DOCKET NO. 144 - The Connecticut Light and Power Company Certificate of Environmental Compatibility and Public Need for a telecommunications facility located on 20 Barnabas Road in the Town of Newtown, Connecticut. Notice of Intent to Modify Facility. (EM-OCI-007-980728)

Dear Mr. Rosenthal:

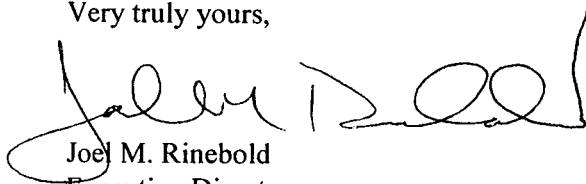
On July 28, 1998, the Connecticut Siting Council (Council) received a request from Omnipoint Communications to modify an existing telecommunications facility located on 20 Barnabas Road in Newtown, Connecticut, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for August 6, 1998, 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 modification of an existing facility.

Thank you for your cooperation and consideration.

Very truly yours,



Joe M. Rinebold  
Executive Director

JMR/jlh

Enclosure: Notice of Intent



**STATE OF CONNECTICUT  
Connecticut Siting Council  
Ten Franklin Square  
New Britain, Connecticut  
Phone: (860) 827-2935  
Fax: (860) 827-2950**

***FACSIMILE TRANSMISSION SHEET***

*DATE: July 31, 1998*

*TO: Honorable Herbert C. Rosenthal  
First Selectman  
Town of Newtown*

*Work No.:  
Fax No.: 203-270-4205*

*FROM: Joel M. Rinebold, Executive Director*

*Work No. (860) 827-2935  
Fax No.: (860) 827-2950*

*RE: DOCKET NO. 144 - The Connecticut Light and Power Company Certificate of Environmental Compatibility and Public Need for a telecommunications facility located on 20 Barnabas Road in the Town of Newtown, Connecticut. Notice of Intent to Modify Facility. (EM-0CI-007-980728)*

*Total number of pages (including this sheet):2*

*Message: Please see attached letter. Hard copy with the enclosure is being mailed today.*

*If problems occur, please call Jenice @ (860) 827-2935*

July 27, 1998

OMNIPOINT COMMUNICATIONS  
25 Van Zant Street, Suite 18E  
East Norwalk, CT 06855

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

**RECEIVED**

JUL 28 1998

CONNECTICUT  
SITING COUNCIL

Dear Chairman Gelston,

Enclosed is a notice of intent to Modify and Exempt the telecommunications tower and associated equipment for facilities owned and operated by Connecticut Light & Power ("CL&P"), Newtown Site #144, 20 Barnabus Road, Newtown, Connecticut. The CL&P mailing address is 107 Selden Street, Berlin, CT 06037. The phone number is 1-800-286-5000.

The proposed modification can be generally described as the addition of "cellular type" PCS antenna array for Omnipoint Communications, Inc. ("Omnipoint") consisting of three (3) 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 located inside a 6' high chain link fence within the existing carriers' compound.

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 Mike Clarkson of RCC Consultants, Inc. at phone # (732) 404-2467.

Thank you in advance for your cooperation.

Sincerely,



Brian Weinstein  
Director of Site Acquisition  
Site Collection, Inc.  
for Omnipoint Communications, Inc.

cc: The Honorable Herbert Rosenthal



## EXEMPT MODIFICATION

### 20 Barnabus, Newtown, 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, Connecticut Light & Power ("CL&P") 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 as specified below to an existing communications tower. This antenna assembly will be owned, operated and maintained by Omnipoint Communications, Inc. ("Omnipoint"). Associated communications hardware will be located within CL&P's existing leased compound area. The site is located 20 Barnabus Road, Newtown, Connecticut, (C.S.C. site #144).

### Background

The proposed modifications are at the site of a self supporting 180' lattice type communications tower and two communications equipment shelters. The tower is owned and operated by CL&P. One equipment shelter is owned and operated by Nextel and the other is owned and operated by Sprint. The tower is currently being used as indicated on the power density chart ("Exhibit C").

### Discussion

Omnipoint proposes to install three individual panel type antennas configured as a three sector array. Specifications for the antenna mount area attached as Exhibit D. The highest point at the tip of the antennas will measure 152' - 4" above grade. The lowest point of the antennas will be at 147' - 8" above grade. The power density this antenna contributes at this site is tabulated on Exhibit C. The purpose of this modification is to serve the public with Wideband PCS services. The make and model number of the proposed antennas are EMS RR90-17-000DP. The frequencies used are in the 1930-1945MHz PCS band.

Attached, Exhibit C depicts a power density chart which represents calculated existing and proposed non ionizing radiation levels. 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.

The current Connecticut (and ANSI/IEEE) power density level standards, for non-ionizing radiation, are shown in Exhibit C. The levels identified in this case are below the standards. These calculations conform to the procedures described by FCC OST Bulletin No. 65.

### Conclusion

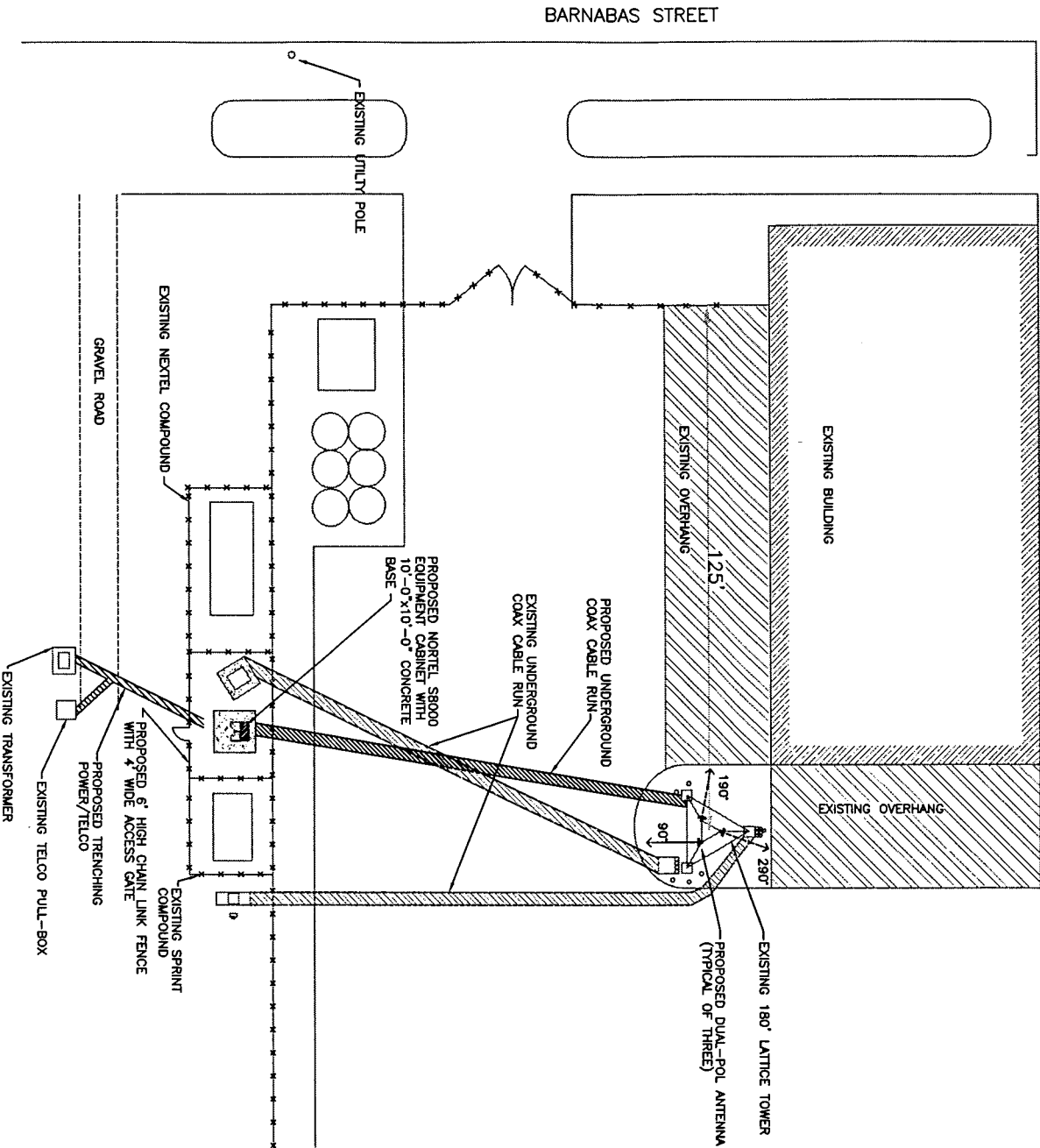
The proposed additions do not constitute a “modification” of an existing facility as defined in the Connecticut General Statutes Section 16-50i(d). There will be no change to the tower height above the previously approved allowable height or extension of the boundaries of the site. The tower is structurally sufficient to support the proposed antennas. 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 Councils exemption criteria.

## **EXHIBIT A**

- 1) SITE PLAN**
- 2) ELEVATION**

- NOTES:
1. ANTENNA ORIENTATIONS AND LOCATIONS TENTATIVE PER VERIFIED TRUE NORTH.
  2. ALL EQUIPMENT LOCATIONS SUBJECT TO APPROVAL BY STRUCTURAL ENGINEER, POWER AND TELEPHONE CONDUIT LOCATIONS SUBJECT TO APPROVAL BY ELECTRICAL ENGINEER / UTILITY COMPANY.



# SITE PLAN

## SITE INFORMATION

SITE NO. CT11-111A  
 ADDRESS: CL&P SERVICE CENTER  
 BARNABAS RD., NEWTOWN, CT  
 APN:  
 ZONE:  
 LATITUDE: 41° 25' 40"  
 LONGITUDE: 73° 20' 39"  
 PROPERTY OWNER: CONNECTICUT LIGHT + POWER

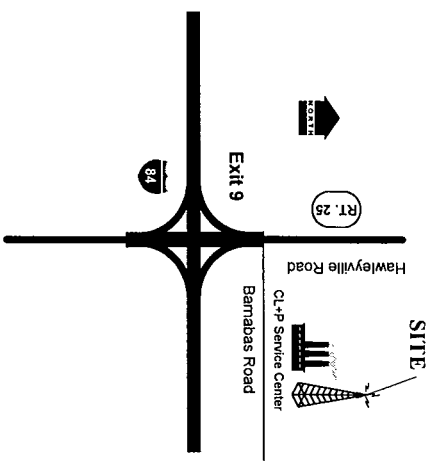
## APPROVALS

OWNER  
 RF ENGINEER  
 SITE ACQUISITION  
 ZONING  
 CONSTRUCTION  
 A&E

## PROPRIETARY NOTE:

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO OMNIPONT COMMUNICATIONS INC. IS STRICTLY PROHIBITED.

## VICINITY MAP



Sheet

# B-1

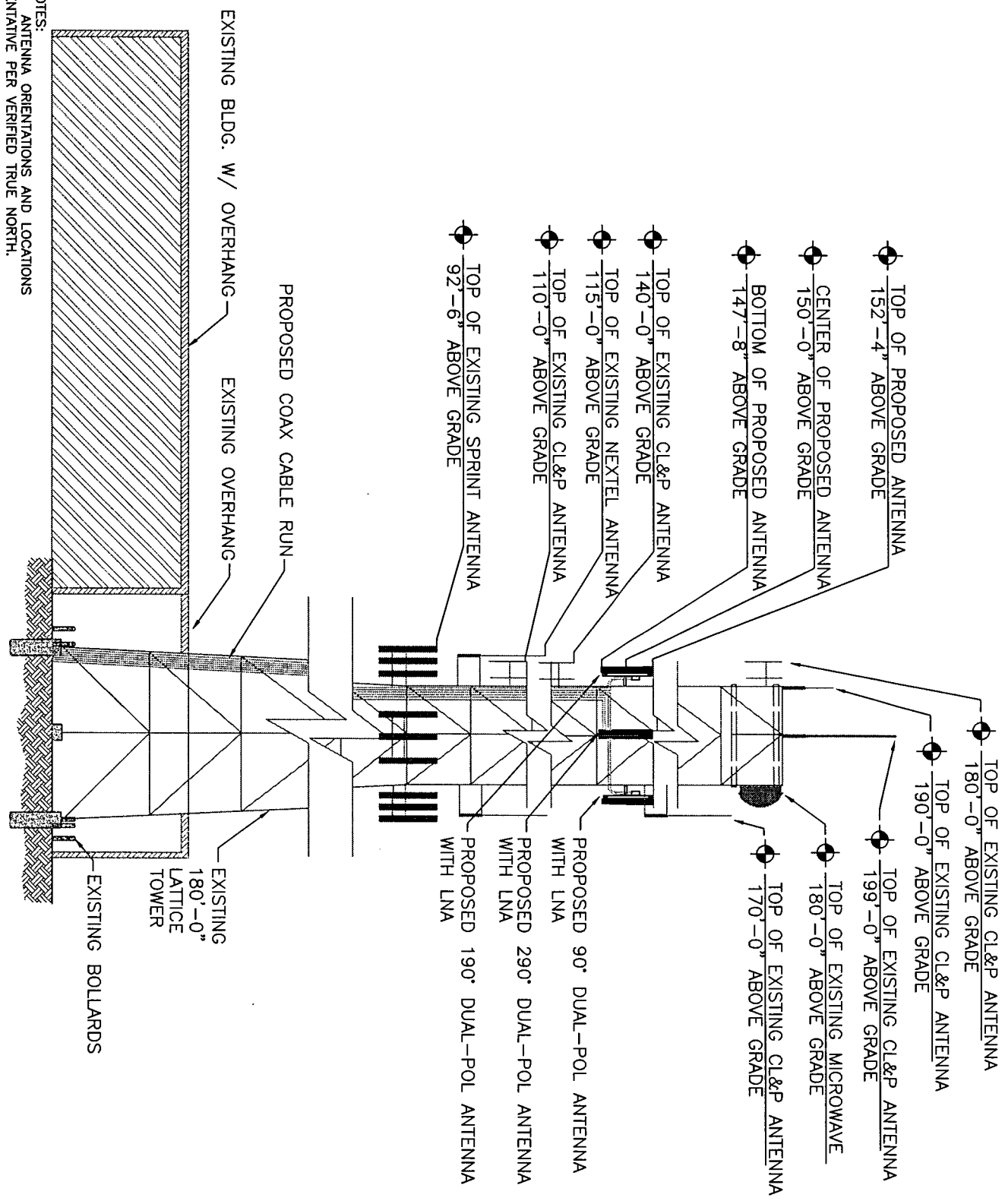
CT11-111A  
**NEWTOWN**  
**CL&P SERVICE CENTER**  
 BARNABAS RD, NEWTOWN, CT

25 VAN ZANT STREET, EAST NORWALK CT 06855  
 (203)855-5400 FAX: (203)855-5474

Dwg. by: **LOU WALKER**  
 ISSUED FOR REVIEW:  
 06-22-98

Revisions	
1	07/09
2	07/14

- NOTES:
1. ANTENNA ORIENTATIONS AND LOCATIONS TENTATIVE PER VERIFIED TRUE NORTH.
  2. ALL EQUIPMENT LOCATIONS SUBJECT TO APPROVAL BY STRUCTURAL ENGINEER, POWER AND TELEPHONE CONDUIT LOCATIONS SUBJECT TO APPROVAL BY ELECTRICAL ENGINEER/ UTILITY COMPANY.



ELEVATION  
NTS

PROPRIETARY NOTE:

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO OMNIPOINT COMMUNICATIONS INC. IS STRICTLY PROHIBITED.

APPROVALS

OWNER	ZONING
RF ENGINEER	CONSTRUCTION
SITE ACQUISITION	A&E

Revisions	
1	07/09
1	07/14

Dwg. by: LOM W/4/4  
 MIDWEST WIRELESS  
 Issued for Review:  
 06-22-98

**OMNIPOINT**  
 COMMUNICATIONS INC.  
 25 VAN ZANT STREET, EAST NORWALK CT 06855  
 (203)855-5400 FAX: (203)855-5474

CT11-111A  
 NEWTOWN  
 CL&P SERVICE CENTER  
 BARNABAS RD, NEWTOWN, CT

Sheet  
**B-2**

**EXHIBIT B**

**STREET MAP**



27

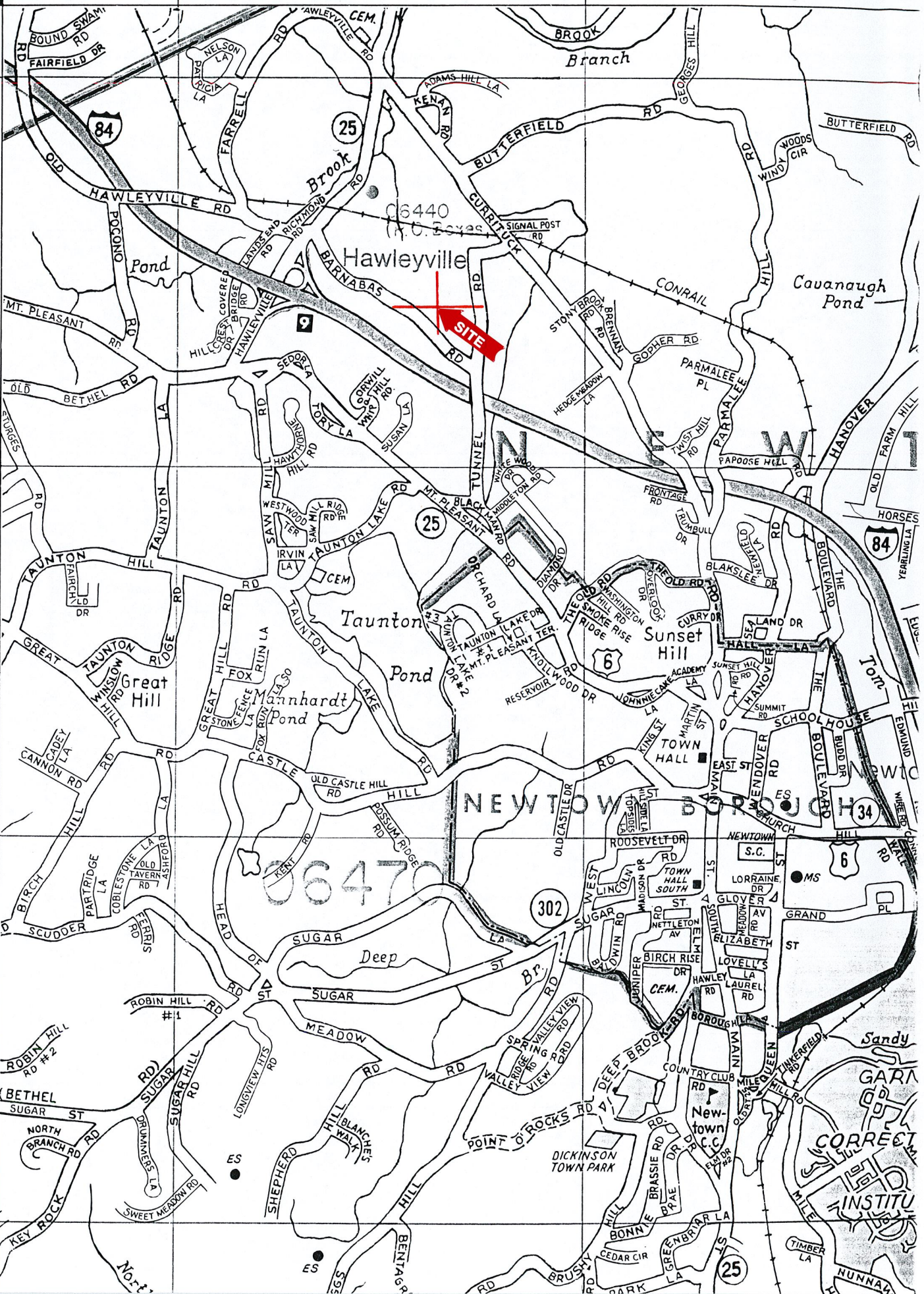
U

V

14

15

16



FOR ADJOINING AREA SEE MAP NO 26

# **EXHIBIT C**

## **POWER DENSITY CALCULATION**

## Non Ionizing Radiation Computation

Site Location: 150 foot ant height  
 CL+P Service Center  
 Barnabas Rd., Newtown, CT

Description: The proposed facility is an EMS Wireless a three-sector PCS array and ancillary equipment. The antennas used by Omnipoint are the EMS RR90-17-00DP DualPol™ units.

Analysis: The non-ionizing radiation analysis conducted here is in accordance with FCC OET Bulletin 65, 1997 edition, and demonstrates that the power density due to the proposed antenna array is well below either the more stringent of the FCC or CT standard for public exposure. At 0.44% of MPE, Omnipoint is NOT a significant contributor to the NIR level at this site.

Calculations: The three-sector array is treated as a single spherical radiator (as is customary at PCS frequencies) centered at the lowest radiating part of the antenna. A ground reflection coefficient of 1.6 is used. This is a worst case analysis that insures the actual exposure is well below the calculated value.

<b>Proposed Omnipoint Antenna</b>	
Top of tower above grade (feet AGL)	180
Tip of highest existing antenna (feet AGL)	199
Proposed Radiation point above grade (feet AGL)	147.67
Proposed Antenna tip above grade, includes air terminal(feet AGL)	152.33

NIR Source	MPE Standard mW/cm <sup>2</sup>	Power Density at tower base mW/cm <sup>2</sup>	MPE percentage at tower base	Power Density at fenced boundary mW/cm <sup>2</sup>	MPE percentage at fenced boundary mW/cm <sup>2</sup>
850 MHz system	0.5667	0.0272	4.8		
37.48, 37.74, 48.34 and 154.46375 MHz systems	0.2	0.0096	4.78		
6775 MHz system	4.5167	0.0000	0.0000		
Sprint**	1	0.1604	16.04		
Proposed Omnipoint	1	0.0044	0.44		
<b>Site Totals</b>		0.2016	26.06	N/A*	N/A*

Source of current NIR (Non-ionizing radiation) levels: Notice of Intent to make exempt changes to an existing tower facility; Northeast Utilities Service Company, Hawleyville Site, Received by the CSC on January 10, 1997.

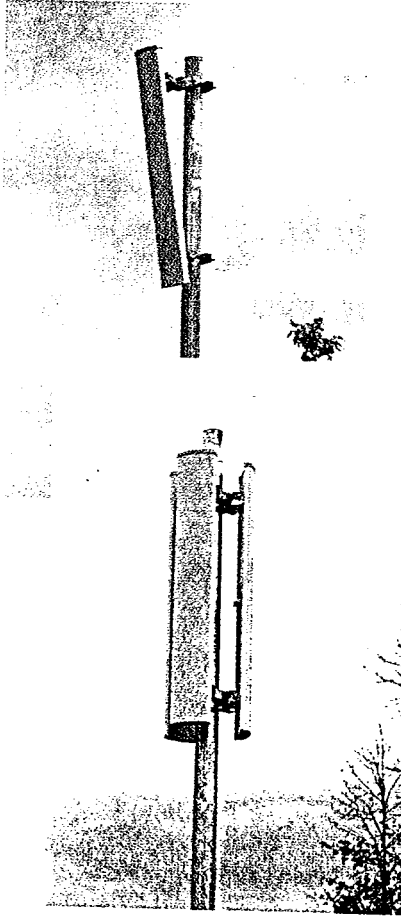
\*Power density at the site boundary not given for the existing users, so the total at the boundary was not computed. Sprint, in their calculations used the spherical (most conservative) EIR model, as did RCC. When using the spherical model, as long as the ground level at the boundary is no higher than the tower base, NIR levels from radiators on the tower at the boundary will always less than at the tower base. Additionally, while the tower is fenced off from access by the general public, it is not restricted from those that have access to the CL&P service center yard. The tower base numbers are those that should be used.

\*\* Sprint NIR limits adjusted to conform to the more stringent FCC standards.

Calculations prepared by: RCC Consultants, Inc, 100 Woodbridge Center Drive, Woodbridge, NJ 07095.  
 Contact: Michael J. Clarson, 1.732.404.2467

# **EXHIBIT D**

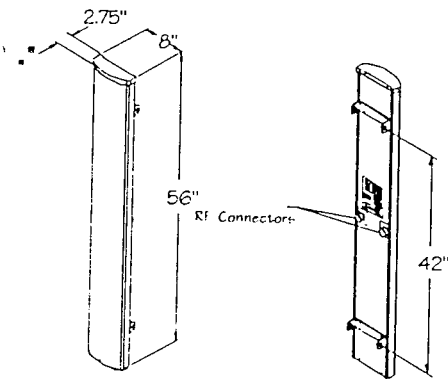
## **ANTENNA SPECIFICATIONS**



Mechanical Specification	
Parameter	Specification
Dimensions (L x W x D)	56 in x 8 in x 2.75 in (142 cm x 20.3 cm x 7.0 cm)
Rated Wind Velocity	150 mph (241 km/hr)
Equivalent Flat Plate Area	3.1 ft. <sup>2</sup> (.29 m <sup>2</sup> )
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)

Electrical Specification	
Parameter	Specification
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 Typical)
Electrical Downtilt Options	0°, 2°, 4°, 6°
Power Handling	250 Watts CW
VSWR	1.35:1 Max
Passive Intermodulation	<-147 dBc (2 tone @ +43 dBm {20W} ea.)
Connectors	2: 7-16 DIN (female)
Lightning Protection	Chassis Ground

Note: Antenna patterns and electrical specifications are co-polarized data.



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-S00-10	Swivel Mount Kit	Wall mounting kit providing +/-30° Azimuth Beam Adjustment
MTG-D10-20	Mechanical Downtilt Kit	0° - 10° Mechanical Downtilt
MTG-D15-20	Mechanical Downtilt Kit	0° - 15° Mechanical Downtilt
MTG-C00-10	Cluster Mount Kit	3 Antennas 120° apart or 2 Antennas 180° apart
MTG-C10-10	Cluster Mount Kit	For use with 10° Downtilt Kit
MTG-C15-10	Cluster Mount Kit	For use with 15° Downtilt Kit

Note: Patent Pending

