#### CONNECTICUT SITING COUNCIL

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

June 2, 1998

Michael A. Stemmler Department of Public Safety Division of State Police 1111 Country Club Road, P.O. Box 2794 Middletown, CT 06457

Re:

DOCKET NO. 118A - The Department of Public Safety, Division of State Police, amended Certificate of Environmental Compatibility and Public Need for telecommunications facilities located in the Towns of North Canaan, Norfolk, and Litchfield, Connecticut. Notice of Intent to Modify Litchfield Facility.

Dear Mr. Stemmler:

At a public meeting held on May 28, 1998, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility in Litchfield, 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 April 2, 1998 and errata dated April 29, 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,

ortuin N. Gelater Juz Mortimer A. Gelston

Chairman

MAG/RKE/jlh

Honorable Craig A. Miner, First Selectman, Town of Litchfield c:



# DEPARTMENT OF PUBLIC SAFETY DIVISION OF STATE POLICE



April 29, 1998



MAY - 8 1998

CONNECTICUT SITING COUNCIL

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

Subject: Updated information for our exempt modification for

Mohawk MT-Site#08, and Troop L-Site#07

(Docket No. 118)

Dear Chairman Gelston:

Attached please find an original and 20 copies of additional information for our Notice of Intent to Erect Exempt Telecommunications Associated Equipment pursuant to Connecticut General Statutes 16-50g et. Seq. and Section 16-50j-73 of the Regulations of the Connecticut Siting Council.

Sincerely,

Michael A. Stemmler

Public Safety Engineer of Telecommunications

cc:

File

Plot plan additional information.

The exact location for Omnipoint's base station equipment has not been determined at this time. The equipment will be mounted in weatherproof cabinets on an approximate 200 square foot concrete pad. The pad will be physically located as close to the base of the tower as possible. Due to differences in site layout the position will vary from site to site. Room for expansion is included on the pad to minimize construction disruption should future additions be granted by the Council. No expansion of the fenced compound is necessary. All construction and equipment will be within the existing fenced compound at all the attached Connecticut State Police communications sites.

## RADIO/ANTENNA SYSTEMS DATA

SITE NAME: MOHAWK MT. PREPARED BY: D.P.S.

TOWER HEIGHT: 180 FEET ON DATE: 02-27-1998

	ADDD AMELIA	mp AMONT TO	 	ANTENNA		i	
No	OPERATING FREQUENCY (MHz)	TRANSMIT POWER (WATTS)	HEIGHT	ТҮРЕ	VERTICAL SIZE (FT)	GAIN (dB)	ERP (W)
	40.0400	300	: : 180	FOLDED MONOPOLE	7	0.0	300
$\frac{1}{2}$	42.0400 867.5000	$5 \times 25$	180	WHIP	13	9.0	1000
3	867.5000	$5 \times 25$	180	WHIP	13	9.0	1000
4	867.5000	$5 \times 25$	180	WHIP	13	9.0	1000
5	822.5000	0	167	WHIP	13	9.0	0
6	2530.0000	10	180	WHIP ON PIPE MOUNT	9	14.0	251
7	6700.0000	1	177	SOLID DISH W/RADOME	6	39.6	5591
8	6700.0000	1	170	SOLID DISH W/RADOME	8	42.1	9939
9	463.0000	$2 \times 70$	160	EIGHT DIPOLE ARRAY	20	6.0	557
10	153.7400	30	164	TWO DIPOLE ARRAY	12	3.0	60
11	171.8750	0	152	TWO DIPOLE ARRAY	12	3.0	0
12	45.5200	100	151	SINGLE DIPOLE	11	2.5	178
13	153.8150	100	143	WHIP	23	5.3	335
14	154.6650	330	144	WHIP	19	5.8	1255
15	6700.0000	1	137	SOLID DISH W/RADOME	6	39.6	5591
16	170.0000	250	128	FOUR DIPOLE ARRAY	22	6.0 2.5	995 270
17	44.6800	152	122	SINGLE DIPOLE SOLID DISH W/RADOME	11 10	33.2	1275
18	1920.0000 165.6875	1 100	¦ 121 ¦ 116	FOUR DIPOLE ARRAY	22	6.0	398
19 20	2144.4000	100	110	SOLID DISH W/RADOME	8	32.2	1018
21	2141.2000	1	112	SOLID DISH W/RADOME	8	32.2	1015
22	44.7200	152	109	SINGLE DIPOLE	11	2.5	270
23	44.7600	152	96	SINGLE DIPOLE	11	2.5	270
24	44.9200	152	85	SINGLE DIPOLE	11	2.5	270
25	151.3550	100	86	FOUR DIPOLE ARRAY	$\overline{22}$	9.0	794
26	33.7000	100	64	TWO DIPOLE ARRAY	39	2.5	178
27	169.4250	25	71	YAGI	3	7.0	125
28	6700.0000	1	66	SOLID DISH W/RADOME	6	39.6	5591
29	2644.0000	0	; 60	GRID DISH	6	31.5	0
30	150.0000	250	¦ 60	FOUR DIPOLE ARRAY	22	6.0	995
31	822.5000	0	; 167	WHIP	13	9.0	0
32	822.5000	0	167	WHIP	13	9.0	0
33	152.3400	50	¦ 85	SINGLE DIPOLE	3	3.0	100
34	6700.0000	1	140	SOLID DISH W/RADOME	6	39.6	5591
35	406.0000	1	128	YAGI	1	10.0	10
36	2530.0000	2 x 5	35	GRID DISH	6 4	$\frac{31.2}{16.5}$	7972 2680
37 38	1937.5000 1937.5000	$3 \times 20$	¦ 140 ¦ 140	PANEL ANTENNA PANEL ANTENNA	4	16.5	2680
38 39	1937.5000	$3 \times 20$ $3 \times 20$	140	PANEL ANTENNA PANEL ANTENNA	4	16.5	2680
JJ	1991.9000	3 A 40	1 T.45 ()	I BURE WILLEMING	7	1010	

- NOTES: 1. TRANSMIT POWER ENTRIES SHOWN AS '5 x 25' SHOULD BE INTERPRETED AS '5 TRANSMITTERS, EACH HAVING A POWER OF 25 WATTS'.

  ENTRIES OF '0' MEAN 'RECEIVE ONLY'- i.e. NO TRANSMITTER.

  ALL OTHER ENTRIES REFER TO ONE TRANSMITTER WITH THE POWER SHOWN.
  - 2. ERP (EFFECTIVE RADIATED POWER) IS THE PRODUCT OF ALL TRANSMITTER POWERS AND THE NUMERICAL VALUE OF THE GAIN (ANTILOG OF dB) RELATIVE TO A DIPOLE ANTENNA.

#### POWER DENSITY ANALYSIS

#### \_\_\_\_\_\_\_

ATTACHMENT C AT THE TOWER BASE, FOR EACH RADIO/ANTENNA SYSTEM

PREPARED BY: D.P.S. SITE NAME: MOHAWK MT. TOWER HEIGHT: 180 FEET ON DATE: 02-27-1998

			·			
	OPERATING		DISTANCE TO BASE	MAXIMUM PERMISSIBLE	AT THE BASE (	OF THE TOWER
	FREQUENCY	EIRP	OF TOWER	EXPOSURE	POWER DENSITY	PERCENT OF
No	(MHz)	(WATTS)	(FEET)	(MW/SQ-CM)	(MW/SQ-CM)	MAX. EXPOSURE
					!	
1	42.0400	492	184	0.200	0.0005006	0.2503
2	867.5000	1641	187	0.578	0.0016153	0.2795
3	867.5000	1641	187	0.578	0.0016153	0.2795
4	867.5000	1641	187	0.578	0.0016153	0.2795
5	822.5000	0	174	0.548	0.0000000	0.0000
6	2530.0000	412	185	1.000	0.0004146	0.0415
7	6700.0000	9172	177	1.000	0.0000032	0.0003
8	6700.0000	16305	170	1.000	0.0003019	0.0302
9	463.0000	914	170	0.308	0.0010835	0.3518
10	153.7400	98	170	0.200	0.0001164	0.0582
11	171.8750	0	158	0.200	0.0000000	0.0000
12	45.5200	292	157	0.200	0.0004079	0.2040
13	153.8150	550	155	0.200	0.0007884	0.3942
14	154.6650	2058	154	0.200	0.0029917	1.4958
15	6700.0000	9172	137	1.000	0.0003746	0.0375
16	170.0000	1633	139	0.200	0.0028942	1.4471
17	44.6800	443	128	0.200	0.0009332	0.4666
18	1920.0000	2092	121	1.000	0.0000096	0.0010
19	165.6875	653	127	0.200	0.0013868	0.6934
20	2144.4000	1670	112	1.000	0.0000107	0.0011
21	2141.2000	1665	112	1.000	0.0000107	0.0011
22	44.7200	443	115	0.200	0.0011571	0.5785
23	44.7600	443	102	0.200	0.0014725	0.7362
24	44.9200	443	91	0.200	0.0018522	0.9261
25	151.3550	1303	97	0.200	0.0047432	2.3716
26	33.7000	292	84	0.200	0.0014330	0.7165
27	169.4250	206	71	0.200	0.0013965	0.6982
28	6700.0000	9172	66	1.000	0.0007777	0.0778
29	2644.0000	0	60	1.000	0.0000000	0.0000
30	150.0000	1633	71	0.200	0.0110928	5.5464
31	822.5000	0	174	0.548	0.0000000	0.0000
32	822.5000	0	174	0.548	0.0000000	0.0000
33	152.3400	164	87	0.200	0.0007491	0.3746
34	6700.0000	9172	140	1.000	0.0003666	0.0367
35	406.0000	16	128	0.270	0.0000343	0.0127
36	2530.0000	13078	35	1.000	0.0055374	0.5537
37	1937.5000	4397	140	1.000	0.0076827	0.7683
38	1937.5000	4397	140	1.000	0.0076827	0.7683
39	1937.5000	4397	140	1.000	0.0076827	0.7683

TOTAL PERCENT OF MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS FOR ALL 39 RADIO SYSTEMS = 21.2462

### NOTES: 1. THE POWER DENSITIES REPRESENTING THE 'MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS' ARE CALCULATED IN ACCORDANCE WITH IEEE C95.1-1991 (REVISION OF ANSI C95.1-1982).

- 2. POWER DENSITIES ARE CALCULATED IN ACCORDANCE WITH THE METHODS DEFINED IN FCC DOCUMENT 'OET BULLETIN NO.65', AUGUST 1997
- 3. EIRP (EFFECTIVE ISOTROPICALLY RADIATED POWER) REFERENCES THE RADIATED POWER TO A POINT SOURCE, WHICH YIELDS POWERS 1.6406 TIMES HIGHER THAN ERP.

#### POWER DENSITY ANALYSIS \_\_\_\_\_\_

POWER DENSITY (% OF MAX. EXPOSURE VS DISTANCE FROM THE TOWER BASE

SITE NAME: MOHAWK MT. PREPARED BY: D.P.S.
TOWER HEIGHT: 180 FEET ON DATE: 02-27-1998

DISTANCE (FEET)	POWER DENSITY (% OF MAX. EXPOSURE
0	21.2462
50	17.6017
100	12.3955
150	10.0908
200	8.5946
250	7.5195
300	6.5570
350	5.5908
400	4.7545
450	4.1720
500	3.8248
550	3.5083
600	3.2179
650	2.9701
700	2.7437
750	2.5321
800	2.3364
850	2.1569
900	1.9945
950	1.8471
1000	1.7126
1050	1.5901
1100	1.4787
1150	1.3774
1200	1.2882
1250	1.2099

#### RADIO/ANTENNA SYSTEMS DATA

SITE NAME: PREPARED BY: D.P.S.

TROOP L PREPARED BY: 180 FEET ON DATE: TOWER HEIGHT: 02-27-1998

	ODDAMING	mp anomer	     	ANTENNA		! !	
No	OPERATING FREQUENCY (MHz)	TRANSMIT POWER (WATTS)	HEIGHT	түре	VERTICAL SIZE (FT)	GAIN (dB)	ERP (W)
			;	<del></del>			
1	42.0400	300	180	FOLDED MONOPOLE	7	0.0	300
2	45.8600	100	¦ 180	FOLDED MONOPOLE	7	0.0	100
3	6700.0000	1	177	SOLID DISH W/RADOME	6	39.6	5591
4	45.5200	100	140	SINGLE DIPOLE	11	2.5	178
5	153.7400	30	141	TWO DIPOLE ARRAY	12	3.0	60
6	147.2400	25	¦ 130	WHIP ON PIPE MOUNT	6	0.0	25
7	33.7000	100	130	SINGLE DIPOLE	20	2.5	178
8	33.4000	100	130	SINGLE DIPOLE	20	2.5	178
9	151.0000	100	† 120	TWO DIPOLE ARRAY	12	3.0	200
10	158.7750	45	120	YAGI	2	7.0	226
11	869.0000	$6 \times 4$	160	PANEL ANTENNA	4	11.0	300
12	869.0000	$6 \times 4$	¦ 160	PANEL ANTENNA	4	11.0	300
13	869.0000	$6 \times 4$	; 160	PANEL ANTENNA	4	11.0	300
14	869.0000	$6 \times 4$	¦ 160	PANEL ANTENNA	4	11.0	300
15	869.0000	$6 \times 4$	160	PANEL ANTENNA	4	11.0	300
16	869.0000	$6 \times 4$	160	PANEL ANTENNA	4	11.0	300
17	869.0000	$6 \times 4$	; 160	PANEL ANTENNA	4	11.0	300
18	869.0000	$6 \times 4$	† 160	PANEL ANTENNA	4	11.0	300
19	869.0000	$6 \times 4$	160	PANEL ANTENNA	4	11.0	300
20	1937.5000	$3 \times 20$	160	PANEL ANTENNA	4	16.5	2680
21	1937.5000	$3 \times 20$	160	PANEL ANTENNA	4	16.5	2680
22	1937.5000	$3 \times 20$	† 160	PANEL ANTENNA	4	16.5	2680

- NOTES: 1. TRANSMIT POWER ENTRIES SHOWN AS '5 x 25' SHOULD BE INTERPRETED AS '5 TRANSMITTERS, EACH HAVING A POWER OF 25 WATTS'. ENTRIES OF '0' MEAN 'RECEIVE ONLY'- i.e. NO TRANSMITTER. ALL OTHER ENTRIES REFER TO ONE TRANSMITTER WITH THE POWER SHOWN.
  - 2. ERP (EFFECTIVE RADIATED POWER) IS THE PRODUCT OF ALL TRANSMITTER POWERS AND THE NUMERICAL VALUE OF THE GAIN (ANTILOG OF dB) RELATIVE TO A DIPOLE ANTENNA.

## POWER DENSITY ANALYSIS

## AT THE TOWER BASE, FOR EACH RADIO/ANTENNA SYSTEM

SITE NAME: TROOP L PREPARED BY: D.P.S.

TOWER HEIGHT: 180 FEET ON DATE: 02-27-1998

No	OPERATING FREQUENCY (MHz)	EIRP (WATTS)	DISTANCE TO BASE OF TOWER (FEET)	MAXIMUM PERMISSIBLE EXPOSURE (MW/SQ-CM)	AT THE BASE POWER DENSITY (MW/SQ-CM)	OF THE TOWER  PERCENT OF  MAX. EXPOSURE
1	42.0400	492	184	0.200	0.0005006	0.2503
2	45.8600	164	184	0.200	0.0001669	0.0834
3	6700.0000	9172	177	1.000	0.0000032	0.0003
4	45.5200	292	146	0.200	0.0004719	0.2360
5	153.7400	98	147	0.200	0.0001556	0.0778
6	147.2400	41	133	0.200	0.0000794	0.0397
7	33.7000	292	140	0.200	0.0005098	0.2549
8	33.4000	292	140	0.200	0.0005098	0.2549
9	151.0000	327	126	0.200	0.0007061	0.3531
10	158.7750	370	120	0.200	0.008800	0.4400
11	869.0000	492	160	0.579	0.0006584	0.1137
12	869.0000	492	160	0.579	0.0006584	0.1137
13	869.0000	492	160	0.579	0.0006584	0.1137
14	869.0000	492	160	0.579	0.0006584	0.1137
15	869.0000	492	160	0.579	0.0006584	0.1137
16	869.0000	492	160	0.579	; 0.0006584	0.1137
17	869.0000	492	160	0.579	0.0006584	0.1137
18	869.0000	492	160	0.579	; 0.0006584	0.1137
19	869.0000	492	160	0.579	0.0006584	0.1137
20	1937.5000	4397	160	1.000	0.0058820	0.5882
21	1937.5000	4397	160	1.000	0.0058820	0.5882
22	1937.5000	4397	160	1.000	; 0.0058820	0.5882

TOTAL PERCENT OF MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS FOR ALL 22 RADIO SYSTEMS = 4.7784

- NOTES: 1. THE POWER DENSITIES REPRESENTING THE 'MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS' ARE CALCULATED IN ACCORDANCE WITH IEEE C95.1-1991 (REVISION OF ANSI C95.1-1982).
  - 2. POWER DENSITIES ARE CALCULATED IN ACCORDANCE WITH THE METHODS DEFINED IN FCC DOCUMENT 'OET BULLETIN NO.65', AUGUST 1997
  - 3. EIRP (EFFECTIVE ISOTROPICALLY RADIATED POWER) REFERENCES THE RADIATED POWER TO A POINT SOURCE, WHICH YIELDS POWERS 1.6406 TIMES HIGHER THAN ERP.

### POWER DENSITY ANALYSIS \_\_\_\_\_\_\_

POWER DENSITY (% OF MAX. EXPOSURE VS DISTANCE FROM THE TOWER BASE

SITE NAME: TROOP L PREPARED BY: D.P.S.
TOWER HEIGHT: 180 FEET ON DATE: 02-27-1998

DISTANCE (FEET)	POWER DENSITY (% OF MAX. EXPOSURE
0	4.7784
50	4.4868
100	4.5182
150	3.9667
200	3.5943
250	3.2808
300	2.8552
350	2.4341
400	2.0640
450	1.7538
500	1.4985
550	1.2893
600	1.1176
650	0.9759
700 750	0.8581 0.7595
800	0.7393
850	0.6057
900	0.5453
950	0.4932
1000	0.4481
1050	0.4088
1100	0.3743
1150	0.3440
1200	0.3172
1250	0.2933



#### CONNECTICUT SITING COUNCIL

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

April 15, 1998

Honorable Craig A Miner First Selectman Town of Litchfield Town Office Building 74 West Street, P.O. Box 488 Litchfield, CT 06759

RE:

**DOCKET NO. 118A** - The Department of Public Safety, Division of State Police, amended Certificate of Environmental Compatibility and Public Need for telecommunications facilities located in the Towns of North Canaan, Norfolk, and Litchfield, Connecticut. Notice of Intent to Modify Litchfield Facility.

Dear Mr. Miner:

On April 6, 1998, the Connecticut Siting Council (Council) received a request from the Department of Public Safety, Division of State Police, to modify an existing telecommunications facility located on 452 Bantam Road in Litchfield, Connecticut, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for Thursday, April 30, 1998, at 2:00 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 modification of an existing facility.

Thank you for your cooperation and consideration.

Very truly yours,

Joel M. Rinebold Executive Director

JMR/sg

Enclosure: Notice of Intent



## DEPARTMENT OF PUBLIC SAFETY DIVISION OF STATE POLICE



April 2, 1998

RECEIPED)

CONNECTICUT SITING COUNCIL

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

Subject: Exempt Modification -- Mohawk MT-Site#08, and Troop L-Site#07

(Docket No. 118)

Dear Chairman Gelston:

Attached please find an original and 20 copies of a Notice of Intent to Erect Exempt Telecommunications Associated Equipment pursuant to Connecticut General Statutes 16-50g et. Seq. and Section 16-50j-73 of the Regulations of the Connecticut Siting Council.

The Council's acknowledgment of the attached notice would be appreciated.

Sincerely,

Michael A. Stemmler

Public Safety Engineer of Telecommunications

of all

cc:

P. Seaha

File

## STATE OF CONNECTICUT SITING COUNCIL

Notice of Intent to Erect Exempt Telecommunications Associated Equipment in Litchfield County.

Pursuant to Connecticut General Statute 16-50g et. seq. and Section 16-50j-73 of the Regulations of the Connecticut Siting Council the Division of State Police hereby give Notice of Its Intent to Erect Exempt Telecommunications Associated Equipment at its Mohawk MT site located on Allyn Road in Cornwall and Troop L site (Docket No.118) located at 452 Bantam Road, Litchfield, Connecticut.

Each site is currently occupied by an active 180 foot three legged self supporting telecommunications tower. Equipment on the existing Mohawk MT tower or previously proposed to the Council consists of thirty-six antennas. The Division of State Police proposes to allow Omnipoint, Inc. to install three 4' panel antennas on the tower. Equipment on the existing Troop L tower or previously proposed to the Council consists of nineteen antennas. The Division of State Police proposes to allow Omnipoint, Inc. to install three 4' panel antennas on the tower. All current and proposed antennas are depicted in the tower elevation drawings attached as Attachment A. This project is part of a Division of State Police effort to share tower space with other users.

The Division of State Police believes that this project is exempt from the need to obtain a Certificate of Environmental Compatibility and Public Need pursuant to Siting Council Reg. Sec. 16-50j-72(b) for the following reasons:

#### 1. Existing Tower Sites

The proposed locations are currently occupied by existing, active 180 foot three legged self supporting lattice type towers and equipment shelters.

#### 2. Site Boundaries

As depicted in Attachment B, the property boundaries of the sites will not be extended. No tree cutting or extensive grading will be conducted at the sites.

#### 3. Tower Height

The existing 180 foot lattice tower at each site will be retained and the height will not change.

#### Noise Levels

The proposed antenna additions will not increase noise levels at the existing facilities by six decibels or more.

#### 5. Radiation Power Density

The radio frequency sending or receiving capability of the additional antennas will not increase the total radio frequency electromagnetic radiation power density measured at the tower site boundaries to or above the standard considered by the State Department of Environmental Protection (DEP). The current ANSI standard applicable to the Division of State Police facilities and the total radio frequency electromagnetic radiation power density calculated for the tower site boundaries are set forth in Attachment C.

#### Conclusion

For all of the above stated reasons, the Division of State Police requests the Siting Council to rule that this notice is in compliance with the exception criteria for changes to an existing facility pursuant to Reg. Sec. 16-50j-72(b).

Dated at Middletown this 674 day of Aleic, 1998

Michael A Stemmler

Public Safety Engineer of Telecommunications

P.O. Box 2794

Middletown, CT 06457-9294

Certification

The undersigned hereby certifies that a copy of the forgoing Notice of Intent to Erect Telecommunications Associated Equipment was mailed this 674 day of ADRIC 1998, to the below named chief elected officials in Cornwall and Litchfield, Connecticut pursuant to Reg. Sec. 16-50j-73.

Gordon M. Ridgway First Selectman Town Office Pine Street P.O. Box 97 Cornwall, CT 06753 Craig A, Miner First Selectman Town Office Building 74 West Street P.O. Box 488 Litchfield, CT 06759

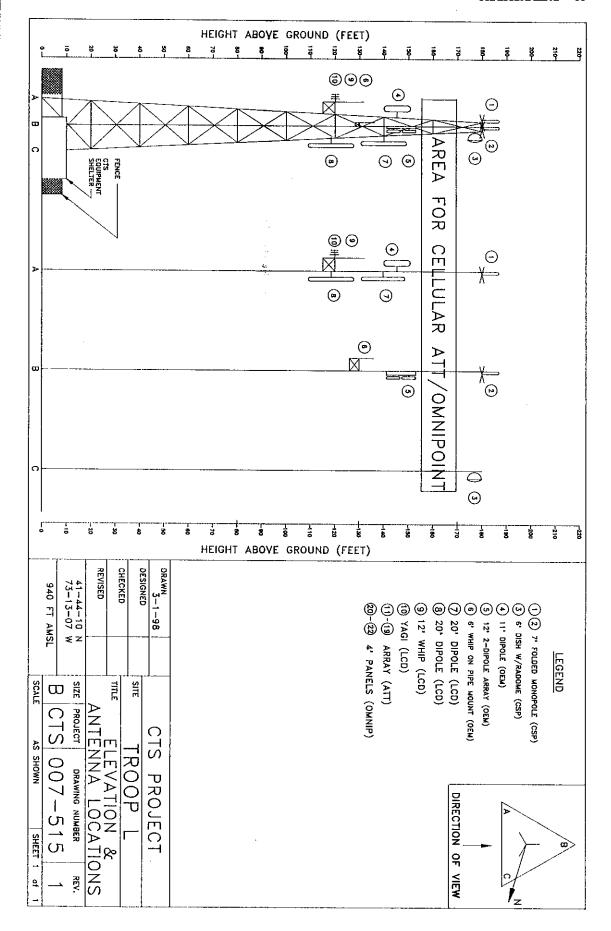
Michael A. Stemmler

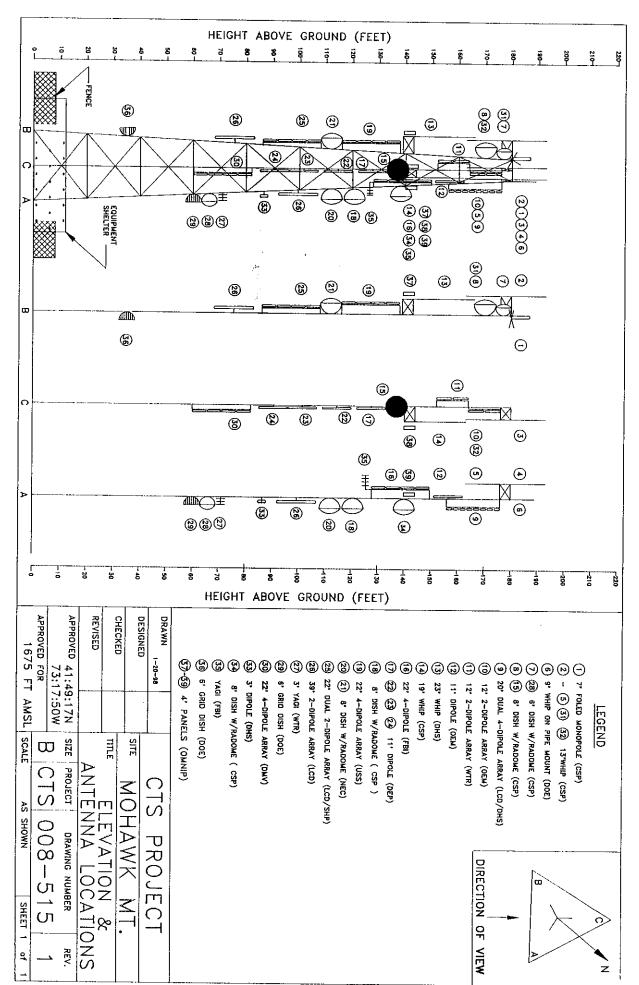
Public Safety Engineer of Telecommunications

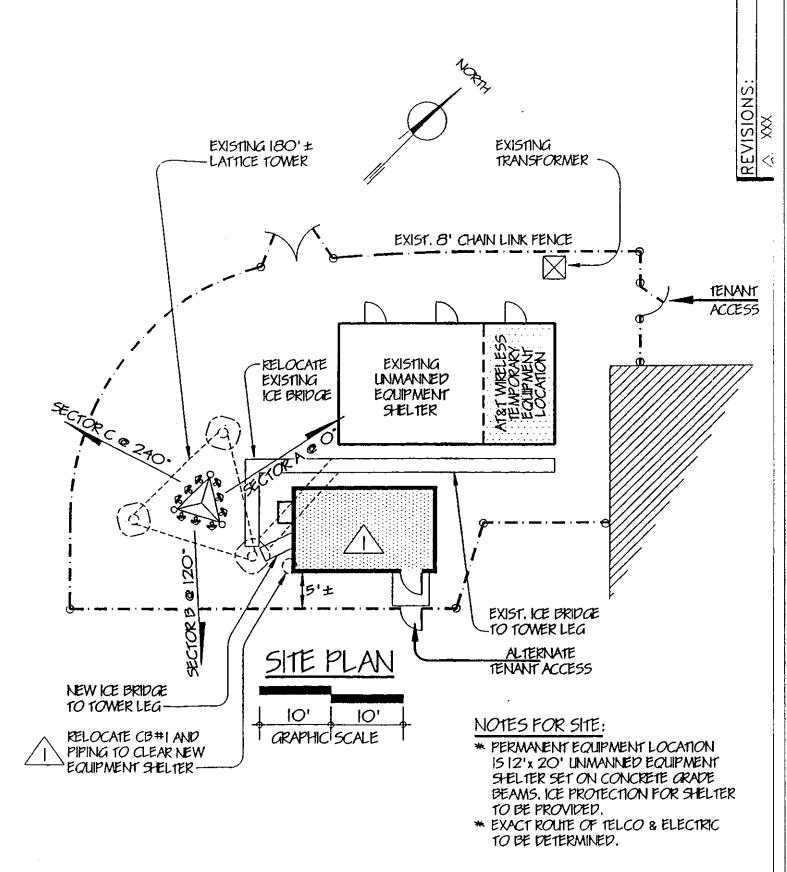
P.O. Box 2794

Middletown, CT 06457-9294

Siting Council - Litchfield County

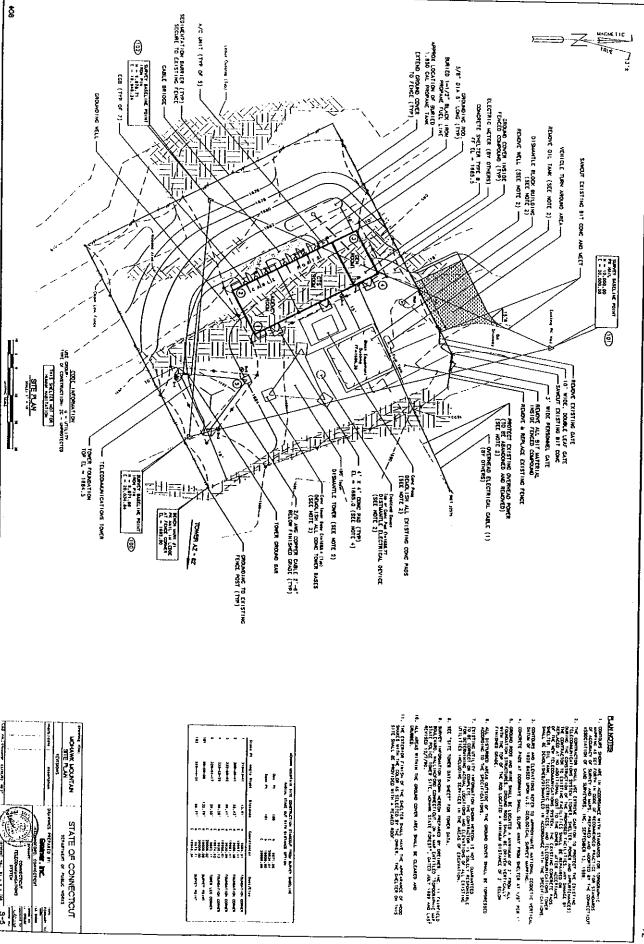






==

SITE OT TROOP L



#### RADIO/ANTENNA SYSTEMS DATA

SITE NAME:

TROOP L

PREPARED BY: D.P.S.

TOWER HEIGHT: 180 FEET ON DATE: 02-27-1998

	apprimerya	mp andrem	 	ANTENNA		!	
No	OPERATING FREQUENCY (MHz)	TRANSMIT POWER (WATTS)	; ; HEIGHT ; (FEET)	түре	VERTICAL SIZE (FT)	GAIN (dB)	ERP (W)
		<b></b>				<b></b>	
1	42.0400	300	180	FOLDED MONOPOLE	7	0.0	300
2	45.8600	100	180	FOLDED MONOPOLE	7	0.0	100
3	6700.0000	1	177	SOLID DISH W/RADOME	6 11	39.6	5591 178
4	45.5200	100	140	SINGLE DIPOLE		2.5	60
5	153.7400	30	141	TWO DIPOLE ARRAY	12	3.0	25
6	147.2400	25	130	WHIP ON PIPE MOUNT	6	0.0	
7	33.7000	100	130	SINGLE DIPOLE	20	2.5	178
8	33.4000	100	130	SINGLE DIPOLE	20	2.5	178
9	151.0000	100	120	TWO DIPOLE ARRAY	12	3.0	200
10	158.7750	45	120	YAGI	2	7.0	226
11	869.0000	$6 \times 4$	160	PANEL ANTENNA	4	11.0	300
12	869.0000	$6 \times 4$	160	PANEL ANTENNA	4	11.0	300
13	869.0000	$6 \times 4$	¦ 160	PANEL ANTENNA	4	11.0	300
14	869.0000	$6 \times 4$	160	PANEL ANTENNA	4	11.0	300
15	869.0000	$6 \times 4$	¦ 160	PANEL ANTENNA	4	11.0	300
16	869.0000	$6 \times 4$	160	PANEL ANTENNA	4	11.0	300
17	869.0000	$6 \times 4$	† 160	PANEL ANTENNA	4	11.0	300
18	869.0000	$6 \times 4$	160	PANEL ANTENNA	4	11.0	300
19	869.0000	$6 \times 4$	160	PANEL ANTENNA	4	11.0	300
20	1937.5000	$3 \times 20$	160	PANEL ANTENNA	4	16.5	2680
21	1937.5000	$3 \times 20$	¦ 160	PANEL ANTENNA	4	16.5	2680
22	1937.5000	$3 \times 20$	160	PANEL ANTENNA	4	16.5	2680

- NOTES: 1. TRANSMIT POWER ENTRIES SHOWN AS '5 x 25' SHOULD BE INTERPRETED AS '5 TRANSMITTERS, EACH HAVING A POWER OF 25 WATTS'. ENTRIES OF '0' MEAN 'RECEIVE ONLY'- i.e. NO TRANSMITTER. ALL OTHER ENTRIES REFER TO ONE TRANSMITTER WITH THE POWER SHOWN.
  - 2. ERP (EFFECTIVE RADIATED POWER) IS THE PRODUCT OF ALL TRANSMITTER POWERS AND THE NUMERICAL VALUE OF THE GAIN (ANTILOG OF dB) RELATIVE TO A DIPOLE ANTENNA.

## POWER DENSITY ANALYSIS

## AT THE TOWER BASE, FOR EACH RADIO/ANTENNA SYSTEM

SITE NAME: TROOP L PREPARED BY: D.P.S.

TOWER HEIGHT: 180 FEET ON DATE: 02-27-1998

No	OPERATING FREQUENCY (MHz)	EIRP (WATTS)	DISTANCE TO BASE OF TOWER (FEET)	MAXIMUM PERMISSIBLE EXPOSURE (MW/SQ-CM)	AT THE BASE POWER DENSITY (MW/SQ-CM)	OF THE TOWER  PERCENT OF  MAX. EXPOSURE
1	42.0400	492	184	0.200	0.0005006	0.2503
$\dot{\overline{2}}$	45.8600	164	184	0.200	0.0001669	0.0834
2 3	6700.0000		177	4.466	0.0000032	0.0001
4	45.5200	292	146	0.200	0.0004719	0.2360
5	153.7400	98	147	0.200	0.0001556	0.0778
6	147.2400	41	133	0.200	0.0000794	0.0397
7	33.7000	292	140	0.200	0.0005098	0.2549
8	33.4000	292	140	0.200	0.0005098	0.2549
9	151.0000	327	126	0.200	0.0007061	0.3531
10	158.7750	370	120	0.200	0.0008800	0.4400
11	869.0000	492	160	0.579	; 0.0006584	0.1137
12	869.0000	492	160	0.579	0.0006584	0.1137
13	869.0000	492	160	0.579	0.0006584	0.1137
14	869.0000	492	160	0.579	0.0006584	0.1137
15	869.0000	492	160	0.579	0.0006584	0.1137
16	869.0000	492	160	0.579	0.0006584	0.1137
17	869.0000	492	160	0.579	; 0.0006584	0.1137
18	869.0000	492	160	0.579	; 0.0006584	0.1137
19	869.0000	492	160	0.579	0.0006584	0.1137
20	1937.5000	4397	160	1.291	0.0058820	0.4556
21	1937.5000	4397	160	1.291	¦ 0.0058820	0.4556
22	1937.5000	4397	160	1.291	; 0.0058820	0.4556

TOTAL PERCENT OF MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS FOR ALL 22 RADIO SYSTEMS = 4.3804

- NOTES: 1. THE POWER DENSITIES REPRESENTING THE 'MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS' ARE CALCULATED IN ACCORDANCE WITH IEEE C95.1-1991 (REVISION OF ANSI C95.1-1982).
  - 2. POWER DENSITIES ARE CALCULATED IN ACCORDANCE WITH THE METHODS DEFINED IN FCC DOCUMENT 'OST BULLETIN NO. 65', OCTOBER 1985.
    3. EIRP (EFFECTIVE ISOTROPICALLY RADIATED POWER) REFERENCES THE
  - 3. EIRP (EFFECTIVE ISOTROPICALLY RADIATED POWER) REFERENCES THE RADIATED POWER TO A POINT SOURCE, WHICH YIELDS POWERS 1.6406 TIMES HIGHER THAN ERP.

### POWER DENSITY ANALYSIS

POWER DENSITY (% OF MAX. EXPOSURE VS DISTANCE FROM THE TOWER BASE

SITE NAME: TROOP L PREPARED BY: D.P.S. TOWER HEIGHT: 180 FEET ON DATE: 02-27-1998

DISTANCE	POWER DENSITY
(FEET)	(% OF MAX. EXPOSURE
0	4.3804
50	4.1240
100	4.2316
150	3.7543
200	3.4383
250	3.1645
300	2.7665
350	2.3648
400	2.0086
450	1.7086
500	1.4611
550	1.2579
600	1.0909
650	0.9528
700	0.8381
750	0.7419
800	0.6608
850	0.5919
900	0.5329
950	0.4821
1000	0.4380
1050	0.3996
1100	0.3660
1150	0.3363
1200	0.3101
1250	0.2868

#### RADIO/ANTENNA SYSTEMS DATA \_\_\_\_\_\_

SITE NAME:

MOHAWK MT.

PREPARED BY: D.P.S.

TOWER HEIGHT: 180 FEET ON DATE: 02-27-1998

	OPERATING	TRANSMIT	ANTENNA				
No 	FREQUENCY (MHz)	POWER (WATTS)	HEIGHT (FEET)	TYPE	VERTICAL SIZE (FT)	GAIN (dB)	ERP (W)
1	42.0400	300	180	FOLDED MONOPOLE	7	0.0	300
2	867.5000	$5 \times 25$	180	WHIP	13	9.0	1000
3	867.5000		180	WHIP	13	9.0	1000
4	867.5000	$5 \times 25$	¦ 180	WHIP	13	9.0	1000
5	822.5000	0	167	WHIP	13	9.0	0
6	2530.0000	10	180	WHIP ON PIPE MOUNT	9	14.0	251
7	6700.0000	1	177	SOLID DISH W/RADOME	6	39.6	5591
8	6700.0000	1	170	SOLID DISH W/RADOME	8	42.1	9939
9	463.0000	$2 \times 70$	160	EIGHT DIPOLE ARRAY	20	6.0	557
10	153.7400	30	164	TWO DIPOLE ARRAY	12	3.0	60
11	171.8750	0	152	TWO DIPOLE ARRAY	12	3.0	0 178
12	45.5200	100	151	SINGLE DIPOLE	11 23	5.3	335
13	153.8150	100	143	WHIP	19	5.8	1255
14 15	154.6650 6700.0000	330 1	† 144 ¦ 137	WHIP SOLID DISH W/RADOME	6	39.6	5591
16	170.0000	250	137	FOUR DIPOLE ARRAY	22	6.0	995
17	44.6800	152	123	SINGLE DIPOLE	11	2.5	270
18	1920.0000	1	121	SOLID DISH W/RADOME	10	33.2	1275
19	165.6875	100	116	FOUR DIPOLE ARRAY	22	6.0	398
20	2144.4000	1	112	SOLID DISH W/RADOME	8	32.2	1018
21	2141.2000	1	112	SOLID DISH W/RADOME	8	32.2	1015
$\overline{22}$	44.7200	152	109	SINGLE DIPOLE	11	2.5	270
$\frac{-}{23}$	44.7600	152	96	SINGLE DIPOLE	11	2.5	270
24	44.9200	152	85	SINGLE DIPOLE	11	2.5	270
25	151.3550	100	¦ 86	FOUR DIPOLE ARRAY	22	9.0	794
26	33.7000	100	¦ 64	TWO DIPOLE ARRAY	39	2.5	178
27	169.4250	25	¦ 71	YAGI	3	7.0	125
28	6700.0000	1	¦ 66	SOLID DISH W/RADOME	6	39.6	5591
29	2644.0000	0	60	GRID DISH	6	31.5	0
30	150.0000	250	60	FOUR DIPOLE ARRAY	22	6.0	995
31	822.5000	0	167	WHIP	13	9.0	0
32	822.5000	0	167	WHIP	13	9.0	0
33	152.3400	50	¦ 85	SINGLE DIPOLE	3	3.0	100 5591
34	6700.0000	1	140	SOLID DISH W/RADOME	6	39.6	10
35 36	406.0000 2530.0000	1 2 x 5	128 35	YAGI GRID DISH	1 6	10.0 31.2	7972
37	1937.5000	$2 \times 5$ $3 \times 20$	140	PANEL ANTENNA	4	16.5	2680
38	1937.5000	$3 \times 20$ $3 \times 20$	140	PANEL ANTENNA	4	16.5	2680
39	1937.5000	$3 \times 20$	140	PANEL ANTENNA	4	16.5	2680
.,.,	130113000	0 A 20	, ,,,,	* **** - *** * ***********************	•		,

- NOTES: 1. TRANSMIT POWER ENTRIES SHOWN AS '5 x 25' SHOULD BE INTERPRETED AS '5 TRANSMITTERS, EACH HAVING A POWER OF 25 WATTS'. ENTRIES OF '0' MEAN 'RECEIVE ONLY'- i.e. NO TRANSMITTER. ALL OTHER ENTRIES REFER TO ONE TRANSMITTER WITH THE POWER SHOWN.
  - 2. ERP (EFFECTIVE RADIATED POWER) IS THE PRODUCT OF ALL TRANSMITTER POWERS AND THE NUMERICAL VALUE OF THE GAIN (ANTILOG OF dB) RELATIVE TO A DIPOLE ANTENNA.

### POWER DENSITY ANALYSIS AT THE TOWER BASE, FOR EACH RADIO/ANTENNA SYSTEM

SITE NAME: MOHAWK MT. TOWER HEIGHT: 180 FEET

PREPARED BY: D.P.S.

ON DATE: 02-27-1998

No	OPERATING FREQUENCY (MHz)	EIRP (WATTS)	DISTANCE TO BASE OF TOWER (FEET)	MAXIMUM PERMISSIBLE EXPOSURE (MW/SQ-CM)	AT THE BASE ( POWER DENSITY (MW/SQ-CM)	PERCENT OF MAX. EXPOSURE
1	42.0400	492	184	0.200	0.0005006	0.2503
$\tilde{2}$	867.5000	1641	187	0.578	0.0016153	0.2795
3	867.5000	1641	187	0.578	0.0016153	0.2795
4	867.5000	1641	187	0.578	0.0016153	0.2795
5	822.5000	0	174	0.548	0.0000000	0.0000
6	2530.0000	412	185	1.686	0.0004146	0.0246
7	6700.0000	9172	177	4.466	0.000032	0.0001
8	6700.0000	16305	170	4.466	0.0003019	0.0068
9	463.0000	914	170	0.308	0.0010835	0.3518
10	153.7400	98	170	0.200	0.0001164	0.0582
1 1	171.8750	0	158	0.200	0.0000000	0.0000
12	45.5200	29 <b>2</b>	157	0.200	0.0004079	0.2040
13	153.8150	550	155	0.200	0.0007884	0.3942
14	154.6650	2058	154	0.200	0.0029917	1.4958
15	6700.0000	9172	137	4.466	0.0003746	0.0084
16	170.0000	1633	139	0.200	0.0028942	1.4471
17	44.6800	443	128	0.200	0.0009332	0.4666
18	1920.0000	2092	121	1.280	0.0000096	0.0008
19	165.6875	653	127	0.200	0.0013868	0.6934
20	2144.4000	1670	112	1.429	0.0000107	0.0007
21	2141.2000	1665	112	1.427	0.0000107	0.0007
22	44.7200	443	115	0.200	0.0011571	0.5785
23	44.7600	443	102	0.200	0.0014725	0.7362
24	44.9200	443	91	0.200	0.0018522	0.9261
25	151.3550	1303	97	0.200	0.0047432	2.3716
26	33.7000	292	84	0.200	0.0014330	0.7165
27	169.4250	206	71	0.200	0.0013965	0.6982
28	6700.0000	9172	66	4.466	0.0007777	0.0174
29	2644.0000	0	60	1.762	0.000000	0.0000
30	150.0000	1633	7 1	0.200	0.0110928	5.5464
31	822.5000	0	174	0.548	0.000000	0.0000
32	822.5000	0	174	0.548	0.000000	0.0000
33	152.3400	164	87	0.200	0.0007491	0.3746
34	6700.0000	9172	140	4.466	0.0003666	0.0082
35	406.0000	16	128	0.270 ;	0.0000343	0.0127
36	2530.0000	13078	35	1.686	0.0055374	0.3284
37	1937.5000	4397	140	1.291 ;	0.0076827	0.5951
38	1937.5000	4397	140	1.291 ;	0.0076827	0.5951
39	1937.5000	4397	140	1.291 ;	0.0076827	0.5951

TOTAL PERCENT OF MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS FOR ALL 39 RADIO SYSTEMS = 20.3421

### POWER DENSITY ANALYSIS

POWER DENSITY (% OF MAX. EXPOSURE VS DISTANCE FROM THE TOWER BASE

\_\_\_\_\_\_

SITE NAME: MOHAWK MT. PREPARED BY: D.P.S. TOWER HEIGHT: 180 FEET ON DATE: 02-27-1998

. . .

DISTANCE (FEET)	POWER DENSITY '% OF MAX. EXPOSURE
^	20. 2421
0	20.3421
50	16.9945
100	11.9685
150	9.8070
200	8.3937
250	7.3587
300	6.4221
350	5.4739
400	4.6512
450	4.0795
500	3.7413
550	3.4323
600	3.1484
650	2.9063
700	2.6849
750	2.4777
800	2.2859
850	2.1097
900	1.9497
950	1.8044
1000	1.6720
1050	1.5516
1100	1.4422
1150	1.3428
1200	1.2554
1250	1.1788



### CONNECTICUT SITING COUNCIL

10 Franklin Square New Britain, Connecticut 06051 Phone: (860) 827-2935

November 19, 1997

Fax: (860) 827-2950



Michael A. Stemmler Department of Public Safety Divison of State Police 1111 Country Club Road, P.O. Box 2794 Middletown, CT 06457

Re: DOCKET NO. 118A - The Department of Public Safety, Division of State Police, amended Certificate of Environmental Compatibility and Public Need for telecommunications facilities located in North Canaan, Norfolk, and Litchfield, Connecticut. Notice of Intent to Modify Litchfield Facility.

Dear Mr. Stemmler:

At a public meeting held on November 19, 1997, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility in Litchfield, 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 November 5, 1997. 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,

Martiner A. Helilan for Mortimer A. Gelston

Chairman

MAG/RKE/sg

Honorable Craig A. Miner, First Selectman, Town of Litchfield



## **TOWN OF LITCHFIELD**

#### P.O. BOX 488 LITCHFIELD, CONNECTICUT 06759

November 18, 1997

RECEIVED)
NOV 2 1 1997

CONNECTICUT SITING COUNCIL

VIA FAX AND REGULAR MAIL

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

Re: Department of Public Safety, Division of State Police, notice of intent to modify an existing telecommunications facility located on Route 202 in Litchfield, CT

Dear Mr. Rinebold:

At the Litchfield Planning and Zoning Commission meeting held November 17<sup>th</sup>, 1997, the Commission reviewed the notice of intent to erect exempt telecommunications and associated equipment by the Division of State Police at its Troop L Barracks site located on Route 202 in Litchfield, CT. It is our understanding that the Division of State Police proposes to allow AT&T to install three panel antennas on the existing tower and construct a 12'x20'equipment shelter. This project is part of a Division of State Police effort to share tower space with other users.

At the above Planning and Zoning Commission meeting, the Commission voted favorably to notify the Connecticut Siting Council that the Litchfield Planning and Zoning Commission looks favorably on locating antennas on existing towers and appreciates the receipt of notification and the ability to comment on proposals at the Connecticut Siting Council Energy/Telecommunication meetings. Please read this letter into the meeting to be held Wednesday, November 19<sup>th</sup>, 1997 at 2:15 p.m. in hearing room 2, 10 Franklin Square, New Britain CT, Docket number 118A.

Sincerely,

Carol Bramley

Acting Chairman

Litchfield Planning and Zoning Commission

#### ALAN B. AND SUSAN B. MAGARY

39 FERN AVENUE P.O. BOX 1329 LITCHFIELD, CT 06759 TEL: (860) 567-5219 FAX: (860) 567-5213

November 15, 1997

State of Connecticut Connecticut Siting Council 10 Franklin Square New Britain, CT 06051

RE: Department of Public Safety, Division of State Police, notice of intent to modify an existing telecommunications facility located on Route 202 in Litchfield, Connecticut.

Dear Sirs:

On behalf of neighboring residents of Fern Avenue (who have been active during the past year in trying to prevent a new 190' cellular tower from being erected on nearby residential property), we wish to register our support of this Notice of Intent. This proposal will add communications capability to a pre-existing structure in a non-residential area. It is a good example of how new communications facilities can be added to a community without doing harm to the residential areas of the community.

Thank you for your consideration.

Yours truly, Harb Her Guly

RECEIVED

NOV 1.8 1997

CONNECTICUT SITING COUNCIL



### CONNECTICUT SITING COUNCIL

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

November 10, 1997

Honorable Craig A. Miner
First Selectman
Town of Litchfield
Town Office Building, 74 West Street
P.O. Box 488
Litchfield, CT 06759

RE: Department of Public Safety, Division of State Police, notice of intent to modify an existing telecommunications facility located on Route 202 in Litchfield, Connecticut.

Dear Mr. Miner:

On November 5, 1997, the Connecticut Siting Council (Council) received a request from the Department of Public Safety, Division of State Police, to modify an existing telecommunications facility located on Route 202 in Litchfield, Connecticut, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting tentatively scheduled for Wednesday, November 19, 1997, at 2:15 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 modification of an existing facility.

Thank you for your cooperation and consideration.

Very truly yours,

Joel M. Rinebold Executive Director

JMR/sg

Enclosure: Notice of Intent



# DEPARTMENT OF PUBLIC SAFETY DIVISION OF STATE POLICE



November 5, 1997



NOV 05 1997

Mortimer A. Gelston, Chairman Connecticut Siting Council 10 Franklin Square New Britain, Connecticut 06051 CONNECTICUT SITING COUNCIL

Subject: Exempt Modification - CTS Site 07-TROOP L

Dear Chairman Gelston:

Attached please find an original and 20 copies of a Notice of Intent to Erect Exempt Telecommunications Associated Equipment pursuant to Connecticut General Statutes 16-50g et. Seq. and Section 16-50j-73 of the Regulations of the Connecticut Siting Council.

The Council's acknowledgment of the attached notice would be appreciated.

Sincerely,

Michael A. Stemmler

Public Safety Engineer of Telecommunications

cc: P. Seaha

File

1111 Country Club Road P.O. Box 2794 Middletown, CT 06457-9294 An Equal Opportunity Employer

## STATE OF CONNECTICUT SITING COUNCIL

Notice of Intent to Erect Exempt Telecommunications Associated Equipment

Pursuant to Connecticut General Statute 16-50g et. Seq. and Section 16-50j-73 of the Regulations of the Connecticut Siting Council the Division of State Police hereby gives Notice of its Intent to Erect Exempt Telecommunications Associated Equipment at its Troop L Barracks Site located on Route 202 in Litchfield, Connecticut.

The site is currently occupied by an existing, active 180 foot three legged self supporting telecommunications tower. Equipment on the existing tower or previously proposed to the Council consists of eleven (11) antennas. The Division of State Police proposes to allow AT&T to install three (3) panel antennas on the tower and construct a 12'x 20' equipment shelter. All current and proposed antennas are depicted in the tower elevation drawing attached as ATTACHMENT A. This project is part of a Division of State Police effort to share tower space with other users.

The Division of State Police believes that this project is exempt from the need to obtain a Certificate of Environmental Compatibility and Public Need pursuant to Siting Council Reg. Sec. 16-50j-72 (b) for the following reasons:

#### 1. Existing Tower Site

The proposed location is currently occupied by an existing, active, one hundred eighty (180) foot three legged shelf supporting lattice type tower and equipment shelter.

#### 2. Site Boundaries

As depicted in ATTACHMENT B, the property boundaries at the site will not be extended. No tree cutting or extensive grading will be conducted at the site.

#### 3. Tower Height

The existing one hundred eighty foot lattice tower will be retained and the height will not change.

#### 4. Noise Levels

The proposed antenna addition will not increase noise levels at the existing facility by six decibels or more.

#### 5. Radiation Power Density

The radio frequency sending or receiving capability of the additional antennas will not increase the total radio frequency electromagnetic radiation power density measured at the tower site boundary to or above the standard considered by the State Department of Environmental Protection (DEP). The current ANSI standard applicable to the Division of State Police facility and the total radio frequency electromagnetic radiation power density calculated for the tower site boundary are set forth in ATTACHMENT C.

#### CONCLUSION

For all of the above stated reasons, the Division of State Police requests the Siting Council to rule that this notice is in compliance with the exception criteria for changes to an existing facility pursuant to Reg. Sec. 16-50j-72(b).

Dated at Middletown this 5th day of November, 1997.

Michael A. Stemmler

Public Safety Engineer of Telecommunications

P.O. Box 2794

Middletown, CT 06457-9294

#### CERTIFICATION

The undersigned hereby certifies that a copy of the forgoing Notice of Intent to Erect Telecommunications Associated Equipment was mailed this 5<sup>th</sup> day of November, 1997, to the below named chief elected official in Litchfield, Connecticut pursuant to Reg. Sec. 16-50j-73.

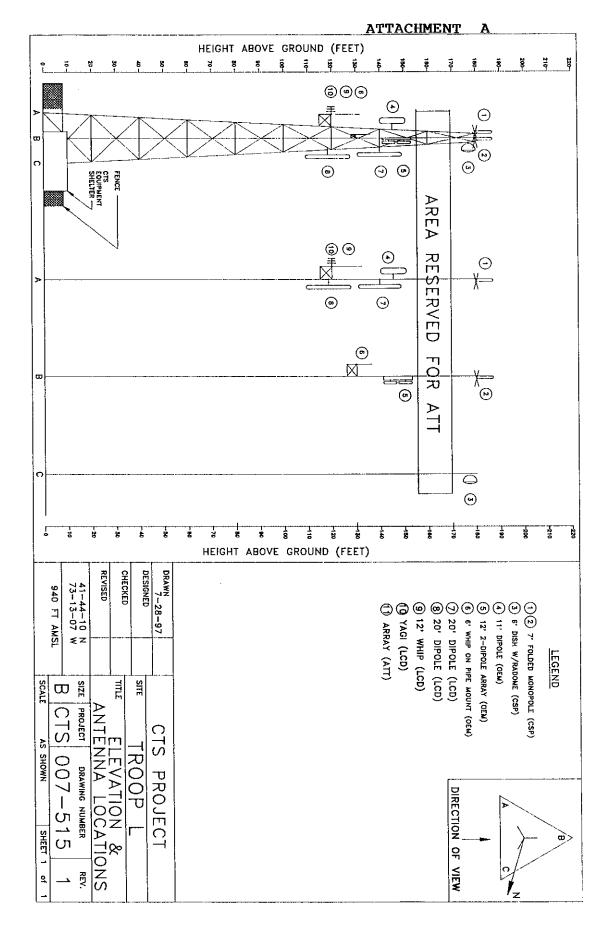
Craig A Miner
First Selectman
Town Office Building
74 West Street
P.O. Box 488
Litchfield, Connecticut 06759

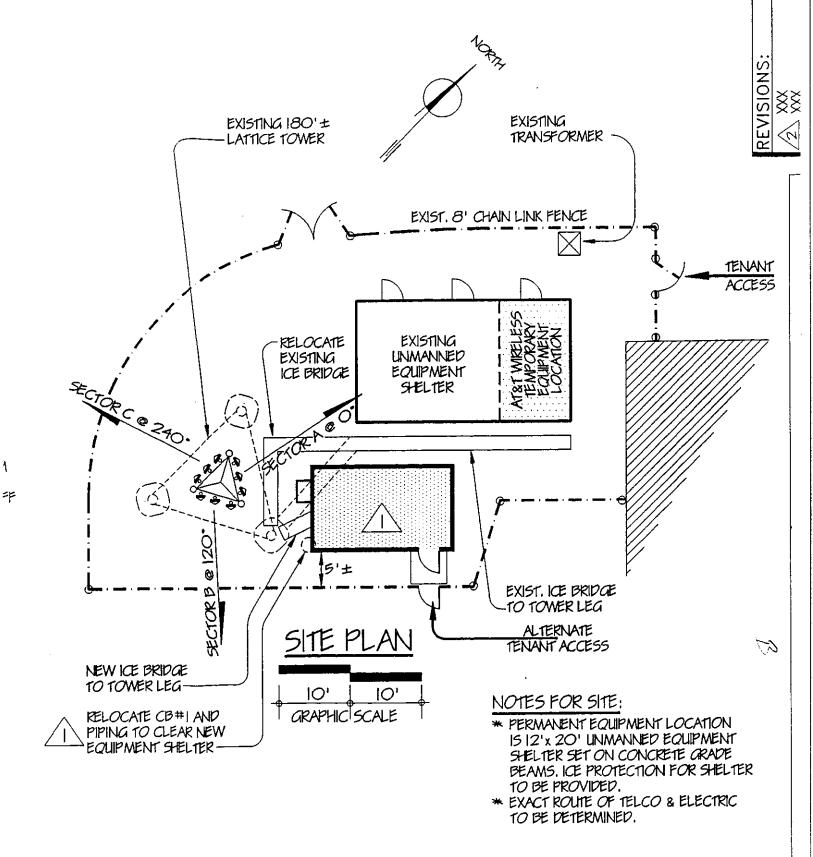
Michael A. Stemmler

Public Safety Engineer of Telecommunications

P.O. Box 2794

Middletown, CT 06457-9294





SITE O7 TROOP L

#### RADIO/ANTENNA SYSTEMS DATA

SITE NAME:

TROOP L

PREPARED BY: D.P.S.

TOWER HEIGHT:

180 FEET

ON DATE: 11-03-1997

	OPERATING FREQUENCY (MHz)	TRANSMIT POWER (WATTS)	ANTENNA				
No 			HEIGHT (FEET)	ТҮРЕ	VERTICAL SIZE (FT)	GAIN (dB)	ERP (W)
1	42.0400	300	180	FOLDED MONOPOLE	7	0.0	300
2	45.8600	100	180	FOLDED MONOPOLE	7	0.0	100
3 4	6700.0000 45.5200	1 100	; 177 ; 140	SOLID DISH W/RADOME SINGLE DIPOLE	6 11	39.6	5591 178
5	153.7400	30	140	TWO DIPOLE ARRAY	12	3.0	60
6	147.2400	25	130	WHIP ON PIPE MOUNT	6	0.0	25
7	33.7000	100	130	SINGLE DIPOLE	20	2.5	178
8	33.4000	100	130	SINGLE DIPOLE	20	2.5	178
9	151.0000	100	120	TWO DIPOLE ARRAY	12	3.0	200
10	158.7750	45	120	YAGI	2	7.0	226
11	869.0000	$6 \times 4$	160	PANEL ANTENNA	4	11.0	300
12	869.0000	$6 \times 4$	160	PANEL ANTENNA	4	11.0	300
13	869.0000	$6 \times 4$	160	PANEL ANTENNA	4	11.0	300
14	869.0000	6 x 4	160	PANEL ANTENNA	4	11.0	300
15	869.0000	$6 \times 4$	¦ 160	PANEL ANTENNA	4	11.0	300
16	869.0000	$6 \times 4$	160	PANEL ANTENNA	4	11.0	300
17	869.0000	$6 \times 4$	160	PANEL ANTENNA	4	11.0	300
18	869.0000	6 x 4	160	PANEL ANTENNA	4	11.0 ;	300
19	869.0000	$6 \times 4$	160	PANEL ANTENNA	4	11.0	300

- NOTES: 1. TRANSMIT POWER ENTRIES SHOWN AS '5 x 25' SHOULD BE INTERPRETED AS '5 TRANSMITTERS, EACH HAVING A POWER OF 25 WATTS'. ENTRIES OF '0' MEAN 'RECEIVE ONLY'- i.e. NO TRANSMITTER. ALL OTHER ENTRIES REFER TO ONE TRANSMITTER WITH THE POWER SHOWN.
  - 2. ERP (EFFECTIVE RADIATED POWER) IS THE PRODUCT OF ALL TRANSMITTER POWERS AND THE NUMERICAL VALUE OF THE GAIN (ANTILOG OF dB) RELATIVE TO A DIPOLE ANTENNA.

#### POWER DENSITY ANALYSIS

### AT THE TOWER BASE, FOR EACH RADIO/ANTENNA SYSTEM

SITE NAME: TROOP L

PREPARED BY: D.P.S.

TOWER HEIGHT: 180 FEET

ON DATE: 11-03-1997

No	OPERATING FREQUENCY (MHz)	EIRP (WATTS)	DISTANCE TO BASE OF TOWER (FEET)	MAXIMUM PERMISSIBLE EXPOSURE (MW/SQ-CM)	AT THE BASE POWER DENSITY (MW/SQ-CM)	OF THE TOWER  PERCENT OF MAX. EXPOSURE
						<b></b>
1	42.0400	492	184	0.200	0.0005006	0.2503
2	45.8600	164	184	0.200	0.0001669	0.0834
3	6700.0000	9172	177	4.466	0.0000032	0.0001
4	45.5200	292	146	0.200	0.0004719	0.2360
5	153.7400	98	147	0.200	0.0001556	0.0778
6	147.2400	41	133	0.200	0.0000794	0.0397
7	33.7000	292	140	0.200	0.0005098	0.2549
8	33.4000	292	140	0.200	0.0005098	0.2549
9	151.0000	327	126	0.200	0.0007061	0.3531
10	158.7750	370	120	0.200	0.0008800	0.4400
11	869.0000	492	160	0.579	0.0006584	0.1137
12	869.0000	492	160	0.579	0.0006584	0.1137
13	869.0000	492	160	0.579	0.0006584	0.1137
14	869.0000	492	160	0.579	0.0006584	0.1137
15	869.0000	492	160	0.579	0.0006584	0.1137
16	869.0000	492	160	0.579	0.0006584	0.1137
17	869.0000	492	160	0.579	0.0006584	0.1137
18	869.0000	492	160	0.579	0.0006584	0.1137
19	869.0000	492	160	0.579	0.0006584	0.1137

TOTAL PERCENT OF MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS FOR ALL 19 RADIO SYSTEMS

3.0135

- NOTES: 1. THE POWER DENSITIES REPRESENTING THE MAXIMUM PERMISSIBLE EXPOSURE FOR UNCONTROLLED ENVIRONMENTS' ARE CALCULATED IN ACCORDANCE WITH IEEE C95.1-1991 (REVISION OF ANSI C95.1-1982).
  - 2. POWER DENSITIES ARE CALCULATED IN ACCORDANCE WITH THE METHODS DEFINED IN FCC DOCUMENT 'OST BULLETIN NO. 65', OCTOBER 1985.
  - 3. EIRP (EFFECTIVE ISOTROPICALLY RADIATED POWER) REFERENCES THE RADIATED POWER TO A POINT SOURCE, WHICH YIELDS POWERS 1.6406 TIMES HIGHER THAN ERP.

## POWER DENSITY ANALYSIS

## POWER DENSITY (% OF MAX. EXPOSURE VS DISTANCE FROM THE TOWER BASE

SITE NAME: TROOP L PREPARED BY: D.P.S.
TOWER HEIGHT: 180 FEET ON DATE: 11-03-1997

DISTANCE (FEET)	POWER DENSITY (% OF MAX. EXPOSURE
0	3.0135
50	2.8787
100	3.2487
150	3.0269
200	2.9049
250	2.7673
300	2.4638
350	2.1285
400	1.8201
450	1.5552
500	1.3341
550	1.1512
600	1.0001
650	0.8748
700	0.7702
750	0.6824
800	0.6082
850	0.5451
900	0.4910
950	0.4444
1000	0.4039
1050	0.3686
1100	0.3376
1150	0.3104
1200	0.2862
1250	0.2647