



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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

August 22, 1997

Peter J. Tyrrell
Senior Counsel
Springwich Cellular Limited Partnership
500 Enterprise Drive
Rocky Hill, CT 06067-3900

Re: Springwich Cellular Limited Partnership notice of intent to modify an existing telecommunications facility located at 2108 Main Street in Glastonbury, Connecticut.

Dear Attorney Tyrrell:

At a public meeting held on August 20, 1997, the Connecticut Siting Council (Council) ruled that the proposed use of this tower would not cause a significant change or alteration in the physical and environmental characteristics of the site, and pursuant to Section 16-50j-72 (c) would constitute a regulatory exemption.

The proposed modifications are to be implemented as specified in your notice dated July 30, 1997. The modifications are in compliance with the exception criteria in Section 16-50j-72 (c) of the Regulations of Connecticut State Agencies as changes to an existing non-facility site that have received all municipal zoning approvals and building permits 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 Science 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,

A handwritten signature in cursive script that reads "Mortimer A. Gelston".

Mortimer A. Gelston
Chairman

MAG/RKE/ss

c: Honorable Richard J. Johnson, Town Manager, Town of Glastonbury

Springwich Cellular Limited Partnership
500 Enterprise Drive
Rocky Hill, Connecticut 06067
Phone (860) 513-7755

SPRINGWICH CELLULAR LIMITED PARTNERSHIP

July 30, 1997

Peter J. Tyrrell
General Counsel

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

RECEIVED

JUL 31 1997

CONNECTICUT
SITING COUNCIL

Dear Chairman Gelston:

Enclosed please find a Notice of Intent to Modify an Exempt Tower and Associated Equipment for facilities owned and operated by the Town of Glastonbury at the Glastonbury Police Department located at 2108 Main Street in Glastonbury, Connecticut.

The Springwich Cellular Limited Partnership (SCLP) proposes to replace an existing 169' foot tall self supporting lattice style tower with a self supporting lattice style tower of the same height and add to the existing police department's radio equipment building to provide additional space for SCLP's associated cellular radio equipment and the Town's radio equipment needs. This site is necessary to provide improved cellular telecommunications services to Glastonbury Center, I-91, Routes 2, 3, 17 and Hebron Avenue.

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

Please record me as counsel for SCLP in this matter and in all correspondence from the Council.

Very truly yours,

Peter J. Tyrrell

Copy to: Honorable Richard J. Johnson, Town Manager, Town of Glastonbury
James M. Thomas, Chief of Police, Glastonbury Police Department
Thomas W. Hayes, Commander, Glastonbury Police Department

GLASTONBURY

Pursuant to Section 16-50i(a) (5) and Section 16-50j-72(c), as amended, of the Regulations of Connecticut State Agencies, for use of a non-facility tower where there would be no substantial environmental effect, the Springwiche Cellular Limited Partnership (SCLP) hereby requests approval from the Connecticut Siting Council (Council) to modify an existing telecommunications facility by replacing an existing self supporting lattice style municipal communications facility with an identical height self supporting lattice tower for its cellular service antennas and to add to the existing building to provide additional space for the Town's use and SCLP's radio equipment.

BACKGROUND

The site is located at the Glastonbury Police Department, 2108 Main Street in Glastonbury, Connecticut. SCLP has received approval from the Town for the replacement of the communications tower and equipment building and a fully executed lease agreement from the Town.

The existing tower is located behind the police station and because of its location, the base and approximately 20 feet of the tower is visually blocked by the police station. The existing portion of the building is currently being used to house radio equipment and the proposed addition would not be visible to the public from the street as it is located adjacent to the rear of the police station.

DISCUSSION

Because of the location of this site and its proximity to other cell sites within SCLP's existing cellular system, it is necessary to use directional antennas in order to minimize possible interference to the surrounding cell sites. In order to use the required nine directional antennas, it is necessary to replace the existing tower with a new tower to assure that the tower will meet manufacturer's specifications and will support our antenna load as well as any additional future Town requirements. SCLP had the existing tower analyzed by UNR-ROHN and was advised the tower was already at or near its design maximum. Attached, as shown on Exhibit A, is the letter SCLP received from UNR-ROHN.

SCLP is proposing to the Council to replace the existing lattice tower with an identical height lattice tower. The replacement tower would be constructed next to the existing tower, approximately 20 feet away and would be removed within 14 days following startup of the new tower.

SCLP believes the portion of the replacement tower visible from portions of Main Street, surrounded by the existing trees in the area, will be only slightly wider than the existing tower and will not be substantially different from what is there today. Thus, from outside the property, there would be minimal visible differences to the surrounding neighborhood. SCLP would then add 9 four foot tall panel style cellular directional antennas (three per face) at the 165 foot level of the tower, in order to supplement its cellular coverage to the greater Glastonbury area and along the nearby Routes 2, 3, 17, Hebron Avenue and Interstate I-91. The proposed additional antennas will not increase the overall height of the replacement tower, as shown on Exhibit B.

The cellular equipment to be used to operate these antennas will be contained within the proposed 24 foot x 26 foot addition to the sally port portion of the station located to the rear of the police station. This method of providing the necessary present and future equipment space was felt to be the most unobtrusive to the Police Department and the surrounding Main Street area and would best blend into the existing property use. Exhibit C depicts the proposed location of the new tower and building addition.

POWER DENSITY

Power Density calculations are shown on Exhibit E.

CONCLUSION

The proposed addition does not constitute a "modification" of an existing facility as defined in Connecticut General Statutes Section 16-50i(d). This is because there is no change in the tower's height. There is no extension of the boundaries of the site. There will be no increase in noise levels at the site's boundary by six 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. The Town has received all necessary zoning approvals which is attached as Exhibit D. This addition will not have a substantially adverse environmental effect. SCLP requests the construction of an associated equipment building addition composed of brick fascia to match the existing brick building currently being used to house radio equipment for the Town's use.

For the reasons discussed above, SCLP requests that the Council acknowledge that this Notice of Modification meets the Council's exemption criteria.

UNR-ROHN

Division of UNR Industries, Inc.

6718 W. Plank Road, P.O. Box 2000, Peoria, Illinois 61656 USA Phone: (309) 697-4400 FAX: (309) 697-5612

Tuesday, August 20, 1996

Bruce Woundy
 S.N.E.T. Mobility
 500 Enterprise Drive
 2nd Floor
 Rocky Hill, CT 06067

Ref: 170' SSV/Motorola Inc./For Glastonbury CT Police Dept.
 ENG FILE 23760JC DWG C890774

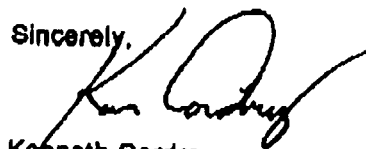
Dear Bruce:

We have reviewed your request to add 9 each APL11011 panel antennas with 1.25" lines at 160' level of referenced tower. We do not recommend this addition be made. The tower with it's current design load is already at or near its design maximum. The addition of the cellular load and subsequent mounting frame would add approximately 120 sq.' of projected area to the structure.

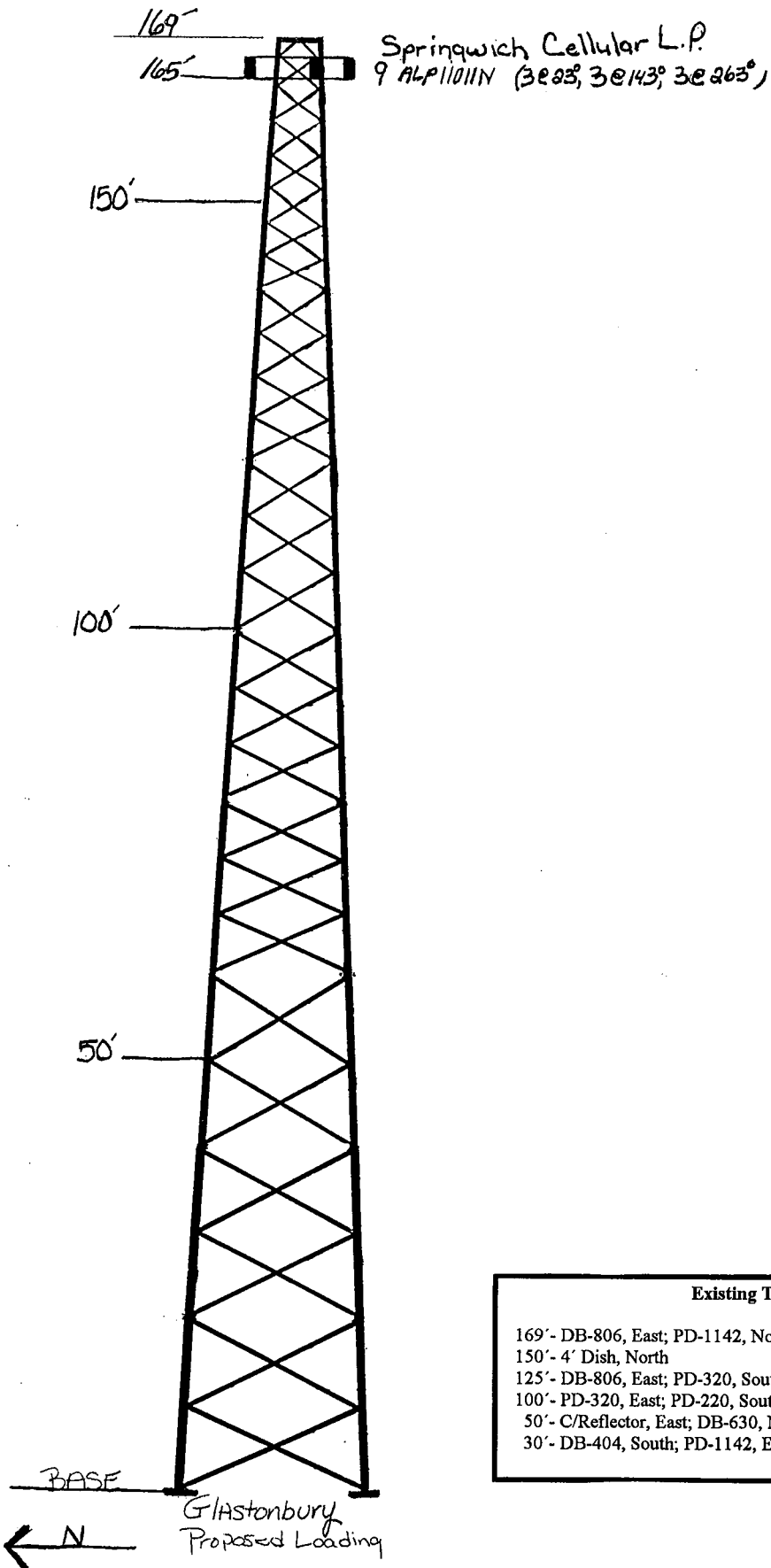
In as much as Motorola chose to use an exposure "A" category for design, this negated any chance that additional loading could be added to the current structure

If you have any further questions please let me know.

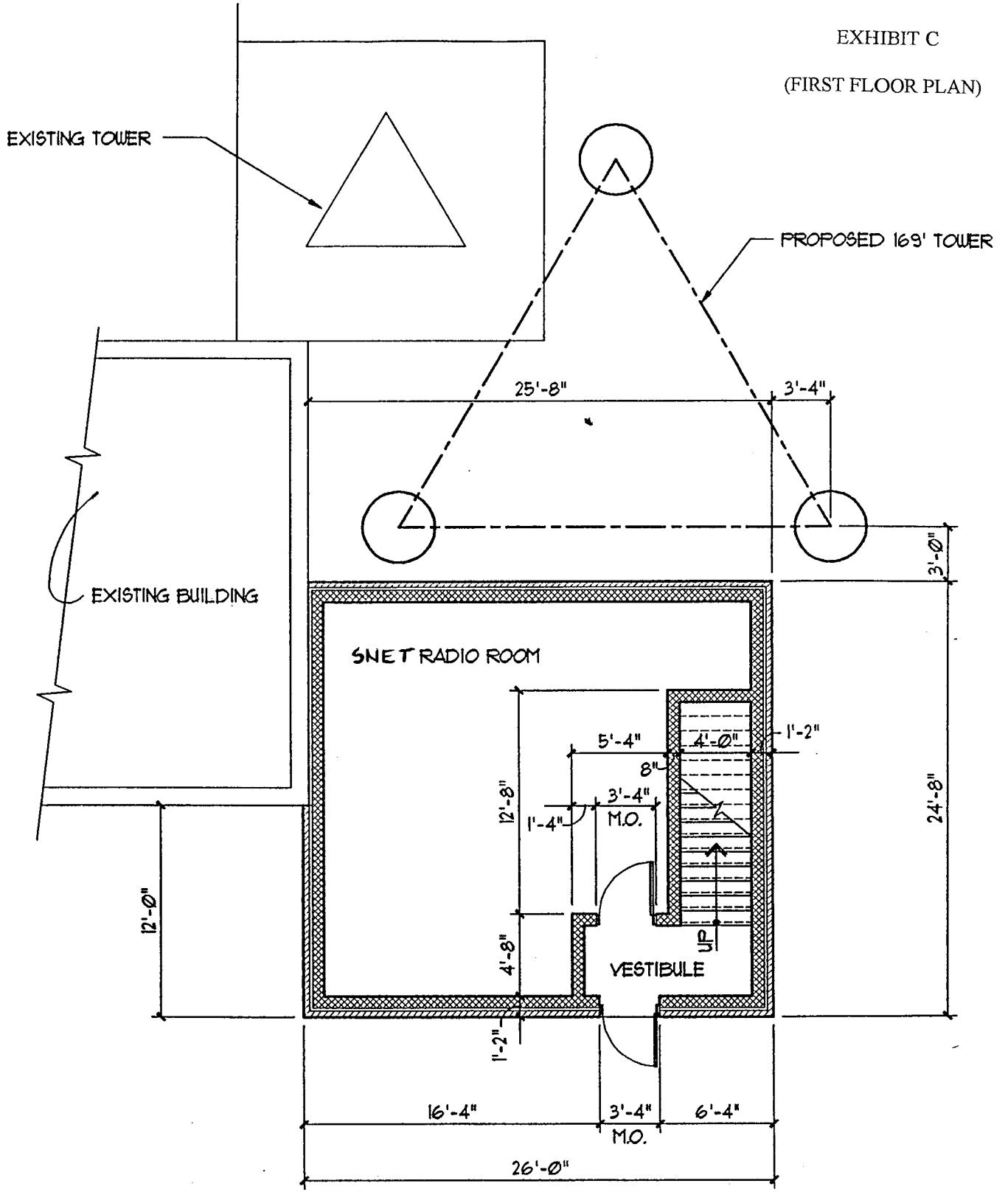
Sincerely,



Kenneth Cordrey
 Northeast Division Sales Mgr.



Existing Town Antennas	
169'	DB-806, East; PD-1142, North
150'	4' Dish, North
125'	DB-806, East; PD-320, South
100'	PD-320, East; PD-220, South; PD-320, North; C/Reflector, North
50'	C/Reflector, East; DB-630, North;
30'	DB-404, South; PD-1142, East



FIRST FLOOR PLAN

1/8" = 1'-0"

EQUIPMENT ENCLOSURE
GLASTONBURY POLICE STATION
GLASTONBURY, CONNECTICUT

SNET
GIRARD & CO. ENGINEERS
DATE MAY 5, 1997
SHEET A-1



Town of

2155 MAIN STREET • P.O. BOX 6523 • GLASTONBURY, CT 06033-6523

TOWN PLAN AND ZONING COMMISSION

June 20, 1997

Commander Thomas Hayes
Glastonbury Police Department
2108 Main Street
Glastonbury, CT 06033

Re: Replacement of Communications Tower
and New Equipment Building

Dear Commander Hayes:

At its meeting of June 17, 1997, the Town Plan and Zoning Commission approved your application for a Special Permit under Section 12 of the Building-Zone Regulations, in accordance with the attached Special Permit Motion.

In accordance with Connecticut General Statutes, you must supply to this office one set of final plans on fixed line mylar. Each mylar sheet shall be sealed and contain "live" signature of the preparer. In addition, one set of final plans on blueprints shall also be provided to this office. The mylar plans will be signed by the Chairman or Secretary of the Commission and Town Officials. Following signing, this office will notify you that the plans are ready to be picked up for filing on the Glastonbury Land Records in the Office of the Town Clerk.

The Special Permit Motion must also be recorded in the Town Clerk's Office. The Special Permit is not effective until the motion and mylar plans are filed. A building permit may not be issued nor any use activity begun until the above filings have been completed.

Should you have any questions, please feel free to call my office.

Sincerely,

TOWN PLAN AND ZONING COMMISSION
For the Secretary

Kenith E. Leslie
Community Development Director

KEL:bjw
Attach.

cc: Richard J. Johnson, Town Manager
Edward P. Pietrycha, Building Official
Daniel A. Pennington, Town Engineer/Manager of Physical Services
Girard & Co. Engineers



Town of

2155 MAIN STREET • P.O. BOX 6523 • GLASTONBURY, CT 06033-6523

**TOWN PLAN AND
ZONING COMMISSION**

**SECTION 12
SPECIAL PERMIT WITH DESIGN REVIEW**

**APPLICANT: TOWN OF GLASTONBURY
2155 MAIN STREET
GLASTONBURY, CT 06033**

OWNER: SAME

**FOR: 2108 MAIN STREET
POLICE DEPARTMENT**

MOVED, that the Town Plan and Zoning Commission approve the application of the Town of Glastonbury for a Section 12 Special Permit with Design Review - replacement of communications tower and new equipment building - Police Department - 2108 Main Street - Reserved Land Zone, in accordance with the following plans:

“SNET OFFICE OF THE DISTRICT MANAGER - BUILDING CONSTRUCTION & DESIGN LOCATION: GLASTONBURY POLICE STATION MAIN STREET, GLASTONBURY, CT. DESCRIPTION: EQUIPMENT ENCLOSURE AND 169' TOWER SITE PLAN GIRARD & CO. ENGINEERS 40 WETHERSFIELD AVE. HARTFORD, CT 06114 (203) 524-5196 DRAWN BY: KA CHECKED BY: MG DATE: 5-28-97 SCALE: 1"=20'-0" S-1"

“SNET OFFICE OF THE DISTRICT MANAGER - BUILDING CONSTRUCTION & DESIGN LOCATION: GLASTONBURY POLICE STATION MAIN STREET, GLASTONBURY, CT. DESCRIPTION: EQUIPMENT ENCLOSURE AND 169' TOWER FLOOR PLANS AND ELEVATIONS GIRARD & CO. ENGINEERS 40 WETHERSFIELD AVE. HARTFORD, CT 06114 (203) 524-5196 DRAWN BY: KA CHECKED BY: MG DATE: 5-28-97 SCALE: 1/8"=1'-0" S-2"

and in compliance with the following conditions:

- 1. The existing tower shall be removed within 14 days following startup of the new tower.**
- 2. The new tower shall be finished with a “flat gray” color similar to the existing tower and shall not be illuminated.**
- 3. A final landscape plan shall be submitted to the Commission within 90 days of occupancy.**

**APPROVED: TOWN PLAN AND ZONING COMMISSION
JUNE 17, 1997**



MICHAEL F. LEPORE, CHAIRMAN

GLASTONBURY

All power density figures shown are calculated according to the FCC adopted ANSI/NCRP standards for Radio Frequency (RF) emissions from radio telecommunications facilities. Based on these standards, the maximum power density calculations were computed as specified by the methodology outlined in the FCC OST Bulletin No.65. This computation is a worst case approximation of RF intensity at the base of the tower (i.e. the closest accessible point to the antennae). All computations are made assuming the main beam of each antenna propagates along it's particular orientation (e.g., East, North, South). The calculations indicate that the maximum power density level for Springwiche antennas would be 0.0383 milliwatts per square centimeter (or 6.52% of the ANSI/NCRP permissible standard) at this particular site.

To obtain the total power density effect of all combined antenna/radio systems at this site requires that each individual antenna/radio system be calculated separately and then the resultant percentage of each limit then be summed for the total impact. The following table lists each individual antenna system appearing along the tower position that offers the worst-case exposure scenario.

RADIO/ANTENNA SYSTEM DATA

GLASTONBURY

<u>Service</u>	<u>Antenna Orientation</u>	<u>Band</u>	<u>Antenna Type</u>	<u>dB Gain (adj.)</u>	<u>ERP</u>	<u>Percent Max.Exposure</u>
Cellular	East	880 MHz	ALP-11011	0	100	6.52
CB	East	27 MHz	PD-1142	0	5	1.27
EMS	East	460 MHz	C/Reflector	9.583	454	33.24
Town	East	45 MHz	PD-320	0	100	2.81
Police 1	East	800 MHz	DB-806	4.55	285	1.04
Police 2	East	800 MHz	DB-806	4.94	312	2.10
Total Percent of Maximum Permissible Exposure (Main beam at horizon)						----- 46.98 %

The total power density calculations is approximately 46.98% of the current Connecticut (and ANSI) power density level standards for non-ionizing radiation. The levels demonstrated in this case are well below the maximum standard levels, as calculated for multiple antenna/radio systems , in accordance with OST Bulletin No. 65 guidelines. The total exposure computed at the North and South orientation of Springwiche's other antenna systems at the tower are 21.52% and 40.33%, respectively.

Since the specific antenna types and transmission patterns are known for each system, cellular power densities can be calculated with a practical method of considering the type of antennas and the power emitted from the nearest lobe instead of the main horizontal beam. This analysis yields a total exposure of 4.42% of the maximum standard levels along the eastern orientation. Under this methodology, the total exposure calculated along the North and South orientations are 4.48% and 5.14%, respectively. The following table lists each individual antenna systems and the more realistic exposure scenario.

RADIO/ANTENNA SYSTEM DATA
GLASTONBURY

<u>Service</u>	<u>Antenna Orientation</u>	<u>Band</u>	<u>Antenna Type</u>	<u>Actual Lobe Max. Exposure</u>
Cellular	East	880 MHz	ALP-11011	0.086
CB	East	27 MHz	PD-1142	1.263
EMS	East	460 MHz	C/Reflector	0.103
Town	East	45 MHz	PD-320	2.809
Police 1	East	800 MHz	DB-806	0.052
Police 2	East	800 MHz	DB-806	0.105

Total Percent of Maximum Permissible Exposure				4.42 %