



CITY OF SOMERVILLE, MASSACHUSETTS
OFFICE OF STRATEGIC PLANNING & COMMUNITY DEVELOPMENT
JOSEPH A. CURTATONE
MAYOR

PLANNING DIVISION

STAFF

GEORGE PROAKIS, *PLANNING DIRECTOR*
LORI MASSA, *SENIOR PLANNER*
ADAM DUCHESNEAU, *PLANNER*
DAWN PEREIRA, *ADMINISTRATIVE ASSISTANT*
FREDERICK J. LUND, *SENIOR DRAFTSMAN*

Case #: ZBA 2011-14
Date: March 3, 2011
Recommendation: Conditional Approval

PLANNING STAFF REPORT

Site: 230 Highland Ave – Somerville Hospital

Applicant Name: New Cingular Wireless, PCS, LLC, by its manager, AT&T Mobility, Inc.

Applicant Address: 550 Cochituate Rd, Framingham, MA 01701

Property Owner Name: Somerville Hospital

Property Owner Address: 230 Highland Ave, Somerville MA 02143

Agent Name: Matt McQuaid, SAI Communications

Agent Address: 11 Taylor Rd, North Reading, MA 01867

Alderman: Thomas Taylor

Legal Notice: Applicant, New Cingular Wireless, PCS, LLC, by its manager, AT&T Mobility, Inc., and Owner, Somerville Hospital, seek a special permit under SZO §4.4, §4.5, §5.1, §7.11.15.3, & §14, to install three antennas and associated equipment and cables to the existing nonconforming wireless installation.

Zoning District/Ward: RA / 3

Zoning Approval Sought: Special Permit (SZO §4.4, §4.5, §5.1, §7.11.15.3, & §14)

Date of Application: January 28, 2011

Dates of Public Meeting • Hearing: Planning Board 3/3/11 • Zoning Board of Appeals 3/16/11

I. PROJECT DESCRIPTION

1. Subject Property: The proposed site of the facilities is the roof of the Somerville Hospital, a facility that occupies a full block, contains 96,679 square feet, and is bounded by Highland Avenue to the North, Crocker Street to the West, Tower Street to the East, and Crown Street to the South. The site slopes downward from Crown Street to Highland Street. Partially in response to this slope, the roof on the masonry hospital structure has several levels. The highest level presently has a penthouse, to which are



CITY HALL • 93 HIGHLAND AVENUE • SOMERVILLE, MASSACHUSETTS 02143
(617) 625-6600 EXT. 2500 • TTY: (617) 666-0001 • FAX: (617) 625-0722

www.somervillema.gov



attached a number of antennas, some of which are visually prominent from surrounding streets. The signage for the building is also on this penthouse.

AT&T currently has 3 arrays, with two panel antennas on each, on the roof of the penthouse. The equipment room is located inside of the building on the 6th and 7th floors.

*230 Highland Ave:
existing antenna equipment on penthouse*



2. Proposal: The proposal is to add three panel antennas to the roof and enclose these antennas as well as the existing six AT&T panel antennas on the roof inside two stealth chimneys. The chimneys will be 5 feet by 5 feet and 10 feet tall. The associated antenna equipment will be located in the existing equipment room inside of the building. New fiber and coax conduits will be located on the roof. The height of the antennas will be the same as the existing antennas that are located 8 feet above the penthouse roof.

The original proposal was to install the 3 panel antennas on the existing antenna frames on the roof. Due to staff concern regarding increasing the amount of antennas on existing frames that do not comply with the SZO regulations, the Applicants redesigned the proposal.

The purpose of the installation is to provide adequate and reliable wireless communications services in and around Somerville for AT&T's new network commonly referred to as "long term evolution" (LTE) or "4G" service. Currently LTE is designed as a high speed data services network that is separate from AT&T's existing voice and data networks. AT&T is making best efforts to use existing sites to install this new technology. The technology depends on a grid of antennae arranged in a geographical pattern similar to a honeycomb.

The proposal will not generate any objectionable noise, odor, fumes, glare, smoke, or dust or require additional lighting or signage. On average, only one site visit is required per month to service and maintain the facility.

3. Nature of Application: The existing wireless telecommunications facility at the site was built prior to the City adopting the current regulations regarding wireless facilities. Wireless installations are not allowed in Residence A zoning districts; however, the site may be expanded by special permit under SZO §4.5.3 for the expansion of a nonconforming use (§7.11.15.3, Wireless Communications Facility) and §4.4.1 for a change to a nonconforming structure. SZO Article 14, wireless communication regulations also applies.

4. Surrounding Neighborhood: The hospital is surrounded on three sides by the RA district and faces the RC district across Highland Avenue. Properties along Highland Avenue feature a variety of commercial and residential uses, with a convenience store, liquor store, and restaurant as ground floor uses topped by housing immediately facing the hospital block. Crocker and Tower Streets are predominantly single- and two-family homes. Directly south of the site, across Crown Street, is a surface parking lot associated with the hospital.

5. Impacts of Proposal: The consolidation of the proposed antennas into two stealth chimneys will improve the existing situation on the rooftop of the penthouse. Due to the screening proposed, the three new antennas and associated equipment will not be visible from the street or surrounding homes.

6. Green Building Practices: None listed on the application form.

7. Comments:

Fire Prevention: Has been contacted but has not provided comments.

Ward Alderman: Alderman Taylor is supportive of the Planning Staff's recommendation.

Lights and Lines: Has been contacted but has not provided comments.

II. FINDINGS FOR SPECIAL PERMIT (SZO §4.4, §4.5, §5.1, §7.11.15.3, & §14):

In order to grant a special permit, the SPGA must make certain findings and determinations as outlined in §5.1.4 of the SZO. This section of the report goes through §5.1.4 in detail.

1. Information Supplied: The Staff finds that the information provided by the Applicant conforms to the requirements of §5.1.2 of the SZO and allows for a comprehensive analysis of the project with respect to the required Special Permits.

2. Compliance with Standards: The Applicant must comply "with such criteria or standards as may be set forth in this Ordinance which refer to the granting of the requested special permit."

In considering a special permit under §4.4 and 4.5 of the SZO, Staff find that the alterations proposed would not be substantially more detrimental to the neighborhood than the existing structure. The proposal will in fact be less detrimental as the existing and proposed antennas and frames will be grouped closer together and screened by stealth chimneys.

The wireless use under §7.11.15.3 of the SZO requires the applicant to follow guidelines and procedures set forth in Article 14 for the, "regulation of wireless telecommunications facilities so as to allow and encourage uses in the City with minimal harm to the public health, safety and general welfare."

Staff find that minimal harm would be imposed upon the health, safety and welfare of the surrounding neighborhood. AT&T is a FCC licensed company that is required to comply with all state and federal regulations.

Review Criteria for Telecommunications Facilities:

- a) *Height of proposed facility:* The base of the building to the roof is 40 feet tall. The penthouse is 22 feet above the roof and the center of the antennas would be 8 feet above the penthouse. A radiofrequency engineer submitted a report stating that the proposal as designed would fill a significant coverage gap in the area. This building is one of the tallest in the surrounding area and there are no buildings in the immediate area that are taller than it.
- b) *Proximity of facility to residential structures and residential zoning districts:* The property is a hospital located in a residential district and there are residential uses surrounding much of the property. On Highland Avenue there are commercial and residential uses. There is existing wireless equipment on the roof and the additional equipment will not be detrimental to the character of the residential district.
- c) *Nature of uses on adjacent and nearby properties:* The site is located in a residential area; however, the design of the stealth chimneys and equipment cabinet enclosure that is inside of the building should address concerns related to the visual effect of antennas in the area.
- d) *Surrounding topography and prominence of proposed facility:* The building is the tallest in the area. The stealth chimneys will screen the equipment so that it will not be a prominent feature on the building.
- e) *Surrounding tree cover and foliage:* The surrounding area features several street trees that are significantly lower in height than the proposed antennas and will be unaffected by this proposal.
- f) *Design of tower, with particular reference to design characteristics that have the effect of reducing or eliminating visual obtrusiveness, as specified in Section 14.3:* Guidelines of Article 14 of the SZO state that antennas should not be located more than 10 feet above the roofline, should be located at a minimum of 10 feet from the roof edge and below a forty-five degree plane beginning at the cornice of the building. Another guideline is that antennas shall be concealed from view through the use of interior-mounting and painted to match the surrounding materials and colors. The existing arrays do not comply with this guideline; however, the new proposal will bring the facility further into compliance. The stealth chimneys will be 10 feet above the penthouse roof and 5 and 6 feet from the edge of the penthouse roof. The color of the chimneys will match the brick of the building and the cable trays will be painted to match the building.
- g) *Location of tower, with particular reference to the existence of more suitable locations, as specified in Section 14.3:* The guidelines in Article 14 state that service providers should co-locate and/or locate on facilities owned or managed by the City of Somerville, whenever possible. The proposal complies with the intent of this guideline as AT&T has existing equipment at this site and the hospital is a nonprofit organization that benefits the community.
- h) *Proposed ingress and egress:* The existing internal stairs and façade mounted ladder will be utilized to access the rooftop.

- i) *Distance from existing facilities:* The accompanying map shows the locations of AT&T antennas. According to the RF Engineer, this site is needed to fill a service gap in Somerville.
- j) *Availability of suitable existing towers, poles, other structures, or alternative technologies, as discussed in Section 14.5.2:* Section 14.5.2 states that the Applicant demonstrates that the proposed antennas will not cause interference with existing antennas on the site and that alternative technologies are unsuitable. The Applicants submitted data related to the need for equipment to support the LTE technology, which is a separate system from the existing voice and data technology. The information submitted states that the new antennas will not cause interference with the existing antennas.

3. Consistency with Purposes: The Applicant has to ensure that the project "is consistent with (1) the general purposes of this Ordinance as set forth in Article 1, and (2) the purposes, provisions, and specific objectives applicable to the requested special permit which may be set forth elsewhere in this Ordinance, such as, but not limited to, those purposes at the beginning of the various Articles."

The Staff finds that the proposal, as conditioned, **is consistent** with the purposes set forth in the purposes of the SZO, specifically "to facilitate the adequate provisions of...other public requirements; to...increase the amenities of the municipality" (SZO §1.2). The wireless equipment is also consistent with the purpose of the residence district in providing service to the local residents.

The Staff finds that the proposal as conditioned **is consistent** with the purposes set forth in Article 14 of the Zoning Ordinance as noted below:

- a) *Protect residential areas and land uses from potential adverse impacts of towers and antennas;*
- b) *Encourage the location of telecommunications facilities in non-residential areas (as noted in finding 2b, the proposal is in a residential area but it complies with the other purposes and standards of the Ordinance);*
- c) *Minimize the total number of towers and antennas throughout the community;*
- d) *Strongly encourage the joint use of new and existing tower sites as a primary option rather than construction of additional single-use towers;*
- e) *Encourage users of towers and antennas to locate them in areas where the adverse impact on the community is minimal;*
- f) *Encourage users of towers and antennas to configure them in ways that minimize the adverse visual impact of the towers and antennas through careful design, siting, landscape screening, and innovative camouflaging techniques;*
- g) *Enhance the ability of the providers of telecommunications services to provide such services to the community quickly, effectively, and efficiently;*
- h) *Consider the public health and safety of communications facilities; and*
- i) *Avoid potential damage to adjacent properties from tower and antenna failure through sound engineering and careful siting of structures.*

4. Site and Area Compatibility: The Applicant has to ensure that the project "(i)s designed in a manner that is compatible with the characteristics of the built and unbuilt surrounding area, including land uses."

Staff finds the project to be compatible with the surrounding area and land uses. The proposed stealth chimneys will hide the AT&T equipment and will not appear to be unusual on this structure that has several projections from the roof.

5. Adverse environmental impacts: The proposed use, structure or activity will not constitute an adverse impact on the surrounding area resulting from: 1) excessive noise, level of illumination, glare, dust, smoke, or vibration which are higher than levels now experienced from uses permitted in the surrounding area; 2) emission of noxious or hazardous materials or substances; 3) pollution of water ways or ground water; or 4) transmission of signals that interfere with radio or television reception.

The facility will have to comply with the applicable FCC requirements relating to radio frequency emissions and will comply with all applicable requirements of the building code. The equipment will not generate glare, light, smoke, vibrations dust or noxious materials. Standard conditions direct compliance with Noise Control Ordinance and FCC Guidelines for Human Exposure to Electromagnetic Fields, and require regular reporting.

III. RECOMMENDATION

Special Permit under SZO §4.4, §4.5, §5.1, §7.11.15.3, & §14

Based on the above findings and subject to the following conditions, the Planning Staff recommends **CONDITIONAL APPROVAL** of the requested **SPECIAL PERMIT**.

#	Condition	Timeframe for Compliance	Verified (initial)	Notes								
1	Approval is for the installation of 3 panel antennas on the penthouse roof inside 2 stealth chimney enclosures (along with the existing 6 panel antennas) and associated equipment. This approval is based upon the following application materials and the plans submitted by the Applicant:	BP/CO	Plng.									
	<table><tr><th>Date (Stamp Date)</th><th>Submission</th></tr><tr><td>1/28/11 Revised 3/1/11</td><td>Initial application submitted to the City Clerk's Office</td></tr><tr><td>3/1/11</td><td>Revised plans submitted to OSPCD (existing & proposed roof plan, existing & proposed elevation)</td></tr><tr><td>3/2/11</td><td>Photo simulations</td></tr></table>				Date (Stamp Date)	Submission	1/28/11 Revised 3/1/11	Initial application submitted to the City Clerk's Office	3/1/11	Revised plans submitted to OSPCD (existing & proposed roof plan, existing & proposed elevation)	3/2/11	Photo simulations
	Date (Stamp Date)				Submission							
	1/28/11 Revised 3/1/11				Initial application submitted to the City Clerk's Office							
	3/1/11				Revised plans submitted to OSPCD (existing & proposed roof plan, existing & proposed elevation)							
	3/2/11				Photo simulations							
Any changes to the approved plans that are not <i>de minimis</i> must receive SPGA approval.												

2	The cable equipment tray shall be painted with a color that matches the brick color of the exterior façade.	Final Inspection	Plng.	
3	The stealth chimney shall conceal the antennas on the chimney (as indicated on the plan). The paint on the chimney should contain a range of colors close to the colors of the building façade. 'Mortar' should not be white but match the existing mortar and that the width of the 'pointing' shall be appropriate to the location.	Final Inspection	Plng.	
4	<i>Compliance with Noise Control Ordinance.</i> Prior to the issuance of a Certificate of Use and Occupancy Permit for the installation of the wireless telecommunications facility, the Applicant shall submit to the Inspectional Services Division, with a copy to the Zoning Board of Appeals, a sound level measurement certified as accurate by a professional acoustician and shall perform such sound level measurements six months after issuance of the certificate of occupancy, with subsequent sound level measurements annually on or before the anniversary date of the original six month measurement to document that all of the Applicant's installed equipment complies and continues to comply with the decibel level standards established by the City of Somerville, Noise Control Ordinance. The Applicant shall provide the results of such measurements and certify that the facility complies with the decibel level standards established by the City of Somerville, Noise Control Ordinance, with a copy to the Zoning Board of Appeals.	CO and annually	ISD / Plng.	
5	Compliance with Federal Communications Commission Guidelines for Human Exposure to Electromagnetic Fields. To ensure compliance with the standards established by the Federal Communications Commission Office of Engineering and Technology ("FCC") in OET Bulletin 65 as adopted by Massachusetts Department of Public Health under 105 CMR 122.021, the Applicant shall perform measurements, within two (2) months of the date that the Applicant's wireless telecommunications facility commences operation and at intervals of twelve (12) months thereafter, to establish that the Applicant's wireless telecommunications facility complies and continues to comply with the FCC guidelines and applicable state regulations for human exposure to radio frequency electromagnetic fields for human exposure to radio frequency electromagnetic fields. The Applicant shall provide the results of such measurements with certification of compliance to the City of Somerville Health Department, with a copy to the Zoning Board of Appeals.	Annually	BOH	

6	Any antenna that is not operated continuously for a period of twelve (12) months shall be considered abandoned, and the owner of such antenna shall remove the same. Failure to remove may result in a fine or penalty.	Perpetual	ISD	
7	The Applicant shall at his expense replace any existing equipment (including, but not limited to street sign poles, signs, traffic signal poles, traffic signal equipment, wheel chair ramps, granite curbing, etc) and the entire sidewalk immediately abutting the subject property if damaged as a result of construction activity. All new sidewalks and driveways must be constructed to DPW standard.	Final inspection	DPW	
8	All construction materials and equipment must be stored onsite. If occupancy of the street layout is required, such occupancy must be in conformance with the requirements of the Manual on Uniform Traffic Control Devices and the prior approval of the Traffic and Parking Department must be obtained.	During Construction	T&P	
9	The Applicant shall contact Planning Staff at least five working days in advance of a request for a final inspection by Inspectional Services to ensure the proposal was constructed in accordance with the plans and information submitted and the conditions attached to this approval.	Final sign off	Plng.	

