



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

***PLANNING DIVISION***

VACANT, *PLANNING DIRECTOR*

CHRISTOPHER DI IORIO, *SENIOR PLANNER*

LORI MASSA, *PLANNER*

DAWN PEREIRA, *ADMINISTRATIVE ASSISTANT*

FREDERICK J. LUND, *SENIOR DRAFTSMAN*

**Case #: ZBA 2009-46**

**Site: 94 Beacon Street**

**Date: October 8, 2009**

**Recommendation: Conditional Approval**

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**PLANNING STAFF REPORT**

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**Site:** 94 Beacon Street

**Applicant Name:** Clearwire

**Applicant Address:** 5808 Lake Washington Blvd. NE, suite 300 Kirkland, WA 98033

**Property Owner Name:** Beacon Place Condominium Trust

**Property Owner Address:** 94 Beacon Street, Somerville, MA

**Agent Name:** Lisa Bera

**Alderman:** Heuston

Legal Notice: Applicant, Clearwire, seeks a Special Permit under SZO §7.11.15.3 in order to replace, relocate and install wireless communications equipment.

Zoning District/Ward: Residence C / 2

Zoning Approval Sought: Special Permit under SZO §7.11.15.3

Date of Application: August 31, 2009

Date(s) of Public Meeting/Hearing: Planning Board 10/8/09 / Zoning Board of Appeals 10/21/09

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**I. PROJECT DESCRIPTION**

1) 1. Subject Property: Located midway between Inman Square and the intersection of Washington and Beacon Street, the subject property is a condominium complex on a 20,273 square foot lot. Nine stories in height (approximately 95 feet), of masonry construction with a brick veneer finish, the building has parking, storage and mechanical rooms at the first floor level. The building has an elevator penthouse and an access penthouse located on the roof, which adds an additional 15 feet in height. Sprint and other telecommunications carriers have antennas and associated equipment on the roof; Sprint facilities are located on the elevator and access penthouses, and other equipment is mounted on a mast pole, and concealed within a false chimney.



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2. Proposal: The applicant is proposing to install wireless communications equipment, including six (6) façade-mounted backhaul circular antennas that range in size from 1ft to 2ft in diameter, one (1) GPS antenna, one (1) roof top mounted equipment cabinet measuring 5ft 6in high by 4ft 3in wide, and associated cabling and equipment. This equipment would provide wireless broadband communication services using WiMAX technology.

The rooftop equipment is proposed to extend at a maximum 18ft above the roof line. A proposed steel platform expansion is proposed to support the additional cabinet.

Four (4) of the circular antennas, the GPS antenna, and the cabinet are proposed to be located on or near the elevator penthouse located in the center of the building's roof. The nearest building edge is approximately 20ft away. This is where the proposed antennas are at their maximum height of 18 ft above the roofline.

The remaining two (2) antennas would be located on the access penthouse facing north. These antennas reach a maximum height of 9ft above the roofline and are located approximately 6 ft from the building edge. In addition, a Sprint antenna would be relocated from the left side to the center of the access penthouse.

3. Nature of Application: Under SZO §7.11.15.3 establishment of a wireless communications facility requires a Special Permit approval.

4. Surrounding Neighborhood: The building is located very close to the Cambridge City Line. Many various retail and restaurant uses thrive along Beacon Street. The immediate area also consists of very densely developed residential neighborhoods and the building is directly abutted on all sides by residential properties.

6. Green Building Practices: None indicated.

7. Comments:

Fire Prevention:	Deputy Chief Steve Keenan has been contacted and has not yet provided comments
Alderman:	Alderman Heuston has been contacted and has not yet provided comments

## **II. FINDINGS FOR SPECIAL PERMIT (SZO§7.11.15.3):**

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."

The Applicant seeks a special permit under §7.11.15.3 of the SZO which 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 such uses in the City with minimal harm to the public health, safety, and general welfare."

Radio Frequency Engineer, Muhammad Kaleem Khan, stated in a letter that the proposed facility complies with all applicable Federal, State and local standards, including those regarding radio-frequency emissions. Staff finds that minimal harm would be imposed upon the health, safety and welfare of the surrounding neighborhood.

Guidelines in Article 14 of the SZO state that antennas should not be located more than 10ft above the roofline, should be located at a minimum of 10ft from the roof edge and below a forty-five degree plane beginning at the cornice of the building. While these guidelines have not been strictly adhered to, Staff finds that the unusual height of the structure, the existence of other antennas in the areas where these new antennas are proposed, the placement of the antennas on existing penthouse structures, and conditions placed on the proposal in this report would limit the visual impact of the proposal that the guidelines are meant to preserve. Conditions imposed by this report include the screening of the proposed cabinet and painting of the antennas above the roofline.

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 Article 1 of the Zoning Ordinance; and, with those purposes established for the Residence C (RC) district in which the property is located, namely, "To establish and preserve a district for multi-family residential and other compatible uses which are of particular use and convenience to the residents of the district." Staff finds the addition of the antennas and associated equipment, as conditioned, will neither negatively affect the local commercial uses, nor the medium density character of the residences in the area.

The Staff finds that the proposal as conditioned **is consistent** with the purposes set forth in Article 14 of the Zoning Ordinance as conditioned in this report, to:

- 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;*
- 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;*



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- 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 antennas proposed are 1ft to 2ft in diameter to be placed on a rooftop that is approximately 95ft above street level. A condition that the cabinets are screened with a material visually similar to the building and that the antennas be camouflaged will reduce any impacts on the site and surrounding area.

5. Review Criteria for Telecommunications Facilities: In addition to those standards outlined in Section 5.1 for the granting of special permits, the SPGA shall consider the following factors in determining whether to issue a special permit for a telecommunications facility:

- a) *Height of proposed facility:* The existing building has an approximately 95ft high roof top and roof line. The RF engineering affidavit states that the optimal height for the proposed antennas to alleviate the gap in Clearwire's coverage plans would be approximately 110ft (15ft above the roofline). The existing elevator penthouse is 17ft in height and the access penthouse is approximately 9ft in height. None of the proposed circular antennas would extend more than a foot above the penthouse rooftops. The single GPS antenna is proposed to extend 2ft above the 17ft high penthouse.
- b) *Proximity of facility to residential structures and residential zoning districts:* The building at 94 Beacon Street is a residential structure in Residence C district. Other residential structures directly abut this property. Staff finds that several companies currently have wireless communications equipment on this structure and additional equipment would have limited impact on the surrounding residential structures.
- c) *Nature of uses on adjacent and nearby properties:* Surrounding properties are mixed use in nature and, Staff finds, compatible with the proposed use.
- d) *Surrounding topography and prominence of proposed facility:* The surrounding area is relatively flat and there are no other buildings of comparable height or prominence in the surrounding area. Though the proposed rooftop antennas are visible from several vantage points, the proposal to match them to the color of the building, and the condition to raise them above the roof line, would reduce their prominence from any public way.
- 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:* Not applicable.
- g) *Location of tower, with particular reference to the existence of more suitable locations, as specified in Section 14.3:* Not applicable.



- h) *Proposed ingress and egress:* Ingress and egress to the site will be at the existing curb cut for the property and use existing parking and circulation patterns.
- i) *Distance from existing facilities:* There are no existing Clearwire antennas currently established in Somerville. The accompanying map shows the proposed future locations of Clearwire antennas. According to the RF Engineer, without this site there would be a service gap in Somerville.
- j) *Availability of suitable existing towers, poles, other structures, or alternative technologies, as discussed in Section 14.5.2:* The attached report prepared by the applicant's professional radio frequency engineer indicates that this location was chosen for the location and overall height of the property, which provides the opportunity for service coverage in this area of Somerville.

### **III. RECOMMENDATION**

#### **Special Permit under SZO §7.11.15.3**

Based on the above findings, the Planning Staff recommends **CONDITIONAL APPROVAL** of the requested **SPECIAL PERMIT**.

Staff finds that this application complies with the requirements for granting a special permit as set forth under §5.1.4 and Article 14.

Although the Planning Staff is recommending approval of the requested Special Permit, the following conditions should be added to the permits:



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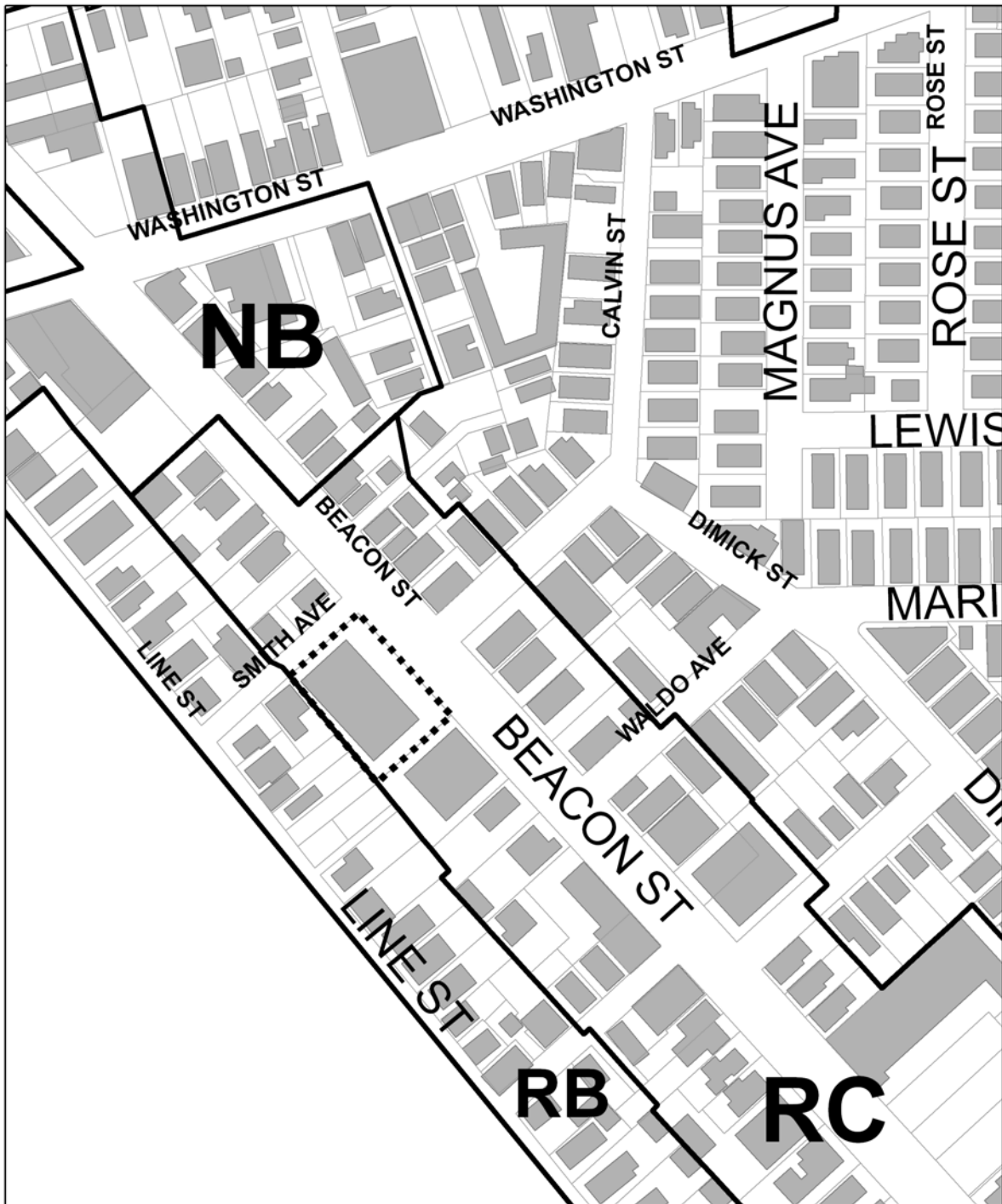


#	Condition	Timeframe for Compliance	Verified (initial)	Notes						
1	<p>Approval is for the establishment of six (6) wireless antennas, one (1) GPS antenna, one (1) rooftop mounted equipment cabinet on a steel platform and associated cabling and equipment. This approval is based upon the following application materials and the plans submitted by the Applicant and/or contractor:</p> <table><tr><th>Date (OSPCD Stamp)</th><th>Submission</th></tr><tr><td>8/31/09</td><td>Initial application, submitted to the City Clerk's Office.</td></tr><tr><td>9/25/09 (10/5/09)</td><td>Engineering affidavit, plans, elevations and photograph renditions submitted to OSPCD. (A1-6, T1, G-1, C-1, S-1, E1-2, U-1)</td></tr></table> <p>Any changes to the approved site plan, photograph renditions and/or elevations that are not <i>de minimis</i> must receive ZBA approval.</p>	Date (OSPCD Stamp)	Submission	8/31/09	Initial application, submitted to the City Clerk's Office.	9/25/09 (10/5/09)	Engineering affidavit, plans, elevations and photograph renditions submitted to OSPCD. (A1-6, T1, G-1, C-1, S-1, E1-2, U-1)	Building permit	PLNG.	
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2	<p><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 Department, 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.</p>	Continued	ISD							

3	<i>Compliance with Federal Communications Commission Guidelines for Human Exposure to Electromagnetic Fields.</i> 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.	Continued	BOH	
4	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 within ninety (90) days of notice from the City of Somerville informing the owner of such abandonment.	Continued	ISD	
5	The applicant shall remove any unused or non-operating wireless equipment prior to installation.	Final signoff	PLNG.	
6	The applicant shall camouflage and/or screen the antennas and equipment cabinet to be approved by Staff	Final signoff	PLNG.	
7	The Applicant shall contact Planning Staff at least five working days in advance of a request for a final sign-off on the building permit to ensure the proposal was constructed in accordance with the plans and information submitted and the conditions attached to this approval.	Final signoff	PLNG.	







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