BZA APPLICATION FORM

GENERAL INFORMATION

The undersigned hereby petitions the Board of Zoning Appeal for the following:

Special Permit: X Variance: __________ Appeal: ________

and relief pursuant to Section 6409 of the Middle Class Tax Relief Act

PETITIONER: T-Mobile Northeast LLC

PETITIONER'S ADDRESS: Prince Lobel Tye, LLP, Attn. Ricardo M. Sousa, Esq., 100 Cambridge Street, Suite 2200, Boston, MA

LOCATION OF PROPERTY: 1 Brattle Square

TYPE OF OCCUPANCY: Telecommunications ZONING DISTRICT: Business B

REASON FOR PETITION:

______ Additions
______ New Structure
______ Change in Use/Occupancy
______ Parking
______ Conversion to Addi'l Dwelling Unit's
______ Sign
______ Subdivision
______ Other: Section 6409(a) of the Spectrum Act relief for Special Permit for the collocation of a Wireless Facility

DESCRIPTION OF PETITIONER'S PROPOSAL:

The Applicant proposes to modify the existing wireless communications facility by replacing three (3) existing panel antennas with three (3) new L700 panel antennas to be installed consistent with the existing antennas on the facade of the penthouse on the roof of the Building and painted to match. The Applicant's proposal complies with Section 6409 of the Spectrum Act as the collocation of antennas is not a substantial change to the existing base station.

Moreover, the Applicants proposal complies with Section 4.32 and 10.4 of the Cambridge Zoning Code.

SECTIONS OF ZONING ORDINANCE CITED:

Article 4.00 Section 4.32 (g)(1) Utilities - Telephone Exchange

Article 10.00 Section 10.4 - Special Permit

Article 6409 Section Middle Class Tax Relief and Job Creation Act

Applicants for a Variance must complete Pages 1-5
Applicants for a Special Permit must complete Pages 1-4 and 6
Applicants for an Appeal to the BZA of a Zoning determination by the Inspectional Services Department must attach a statement concerning the reasons for the appeal

Original Signature(s):

(Petitioner(s)/Owner)
Ricardo M. Sousa, Esq.

(Print Name)

Address: 100 Cambridge Street, Suite 2200
Boston, MA 02114

Tel. No.: 617-455-8123

E-Mail Address: rsousa@princelobel.com

Date: March 17, 2016
BZA APPLICATION FORM - OWNERSHIP INFORMATION

To be completed by OWNER, signed before a notary and returned to
The Secretary of the Board of Zoning Appeals.

I/We ____________________________
(OWNER)

Address: ____________________________

State that I/We own the property located at ____________________________,
which is the subject of this zoning application.

The record title of this property is in the name of ____________________________

______________________________

*Pursuant to a deed of duly recorded in the date ____________, Middlesex South
County Registry of Deeds at Book ____________, Page ____________, or
Middlesex Registry District of Land Court, Certificate No.____________________
Book ____________ Page ____________

______________________________
SIGNATURE BY LAND OWNER OR
AUTHORIZED TRUSTEE, OFFICER OR AGENT*

*Written evidence of Agent's standing to represent petitioner may be requested.

Commonwealth of Massachusetts, County of ____________________________

The above-name ____________________________ personally appeared before me,
this ____________ of ____________, 201_ , and made oath that the above statement is true.

______________________________
Notary

My commission expires ____________ (Notary Seal).

- If ownership is not shown in recorded deed, e.g. if by court order, recent
deed, or inheritance, please include documentation.
March 17, 2016

City of Cambridge
Board of Zoning Appeals
831 Massachusetts Avenue
Cambridge, MA 02139

Re: Eligible Facilities Request pursuant to Section 6409 of the Spectrum Act and an Application for Special Permit, in the alternative

Property Address: 1 Brattle Square, Cambridge, MA 02138
Assessor’s Map 34, Lot 138 (the “Property”)

Applicant: T-Mobile Northeast LLC (the “Applicant”)

Dear Honorable Members of the Board of Zoning Appeals:

This firm represents T-Mobile Northeast LLC (“T-Mobile”) (hereinafter, the “Applicant”) in connection with an application for a special permit from the City of Cambridge Board of Zoning Appeals (the “Board”), to modify an existing wireless communications facility on the Property. The Property is located in the Business B zoning district. To the extent that the Board determines that the requirements of Article 4 Section 4.32G.1 of the City of Cambridge Zoning Ordinance (the “Ordinance”) apply, the use of the Property for a wireless telecommunications facility is permitted by special permit from the Board\(^1\). The Applicant’s proposal satisfies the requirements for the grant of a special permit pursuant to Section 10-43 of the Ordinance.

The Applicant’s Proposed Facility (as defined herein) is subject to Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012, more commonly known as the “Spectrum Act” (47 U.S.C. § 1455). As such, we respectfully submit that in the event that the Board determines that the application does not comply with the Spectrum Act, the Applicant hereby states that the special permit requirements set forth in the Ordinance are hereby met by the Applicant, and that relief must be granted to the Applicant. The compliance with the Spectrum Act is shown on the Eligible Facilities Request permit application form attached hereto and incorporated herein by reference (the “EFR”).

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\(^1\) Pursuant to Section 6409(a) of the Spectrum Act, state and local governments “may not deny and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station.” As such, the Applicant submits that they need not apply for a special permit from the board. To the extent that this Board determines that the Applicants’ proposed wireless facility must comply with special permit requirements set forth in Section 10-43 of the Ordinance, the Applicants submit that they have complied with said requirements, without waiving the argument that such relief is not required.
The Applicant seeks to modify its existing wireless communications facility by replacing three (3) existing panel antennas with three (3) new panel antennas, adjacent to the remaining T-Mobile antennas, and three (3) Remote Radio Head Units ("RRH"), together with supporting equipment (the "Proposed Facility"). All of the proposed replacement antennas will be located in the same location as the antennas they will be replacing and painted to match the existing façade of the penthouse on the roof of building located at the Property (the "Building"), adjacent to three (3) existing T-Mobile antennas. Resulting in no net increase to the total number of antennas as previously approved under the Original Decision, as defined herein. The Applicant's facilities are shown on the Plans attached hereto and incorporated herein by reference (the "Plans").

I. Background

The Applicant is licensed by the Federal Communications Commission (the "FCC") to construct and operate a wireless telecommunications network in various markets throughout the country, including the Commonwealth of Massachusetts and in particular in the City of Cambridge. A copy of the Applicant's FCC license is attached hereto. The Applicant is in the process of designing and constructing a telecommunications system to serve all of the Commonwealth of Massachusetts. One of the key design objectives of its systems is to provide seamless coverage. Such a system requires a grid of radio transmitting and receiving links located approximately .5 to 2 miles apart, depending on the location of existing and proposed installations in the surrounding area, the existing use of the network and the existing topography. The radio transmitting and receiving facilities operate on a line-of-sight basis, requiring a clear path from the facility to the user on the ground. This dynamic requires the antennas to be located in a location where the signal is not obstructed or degraded by other buildings or by topographical features such as hills.

II. Project Description

As noted above, the Applicant proposes to modify its existing wireless facility currently operating on the rooftop of the Building by replacing three (3) existing panel antennas with three (3) new T-Mobile L700 panel antennas, together with three (3) RRH's and supporting equipment. All new antennas will be installed to be consistent with the original zoning decision for this facility (the "Original Decision"). Furthermore, as the Applicant is proposing to replace existing antennas with the new antennas there will be no increase in the total number of antennas on the roof of the Building. Consequently, the visual change to the Applicant's existing facility will be de minimus.

After installation, the Proposed Facility will be unmanned and will only require twice a month maintenance visits per carrier. The only utilities required to operate this Proposed Facility are standard 120-volt electrical power as well as telephone service. These are presently in place at the Property. The traffic generated by the Proposed Facility will be approximately two vehicle trips per month by maintenance personnel who will inspect the Proposed Facility to ensure it remains in good working order. The Proposed Facility will comply with all applicable local, state and federal safety codes.
III. Legal Arguments

A. The Applicant complies with the Wireless Communications provisions set forth in Section 4.32(g), footnote 49 of the Ordinance

Pursuant to Section 4.32(g) of the Ordinance, the Applicant’s proposed use for a wireless communications facility in the Business B zoning district is permitted by special permit. The Applicant’s Proposed Facility further complies with the provisions set forth in Section 4.32(g), footnote 49 of the Ordinance:

1. The Board of Zoning Appeal shall consider the scope of or limitations imposed by any license secured from any state or federal agency having jurisdiction over such matters.

Enclosed herewith is the Applicant’s FCC license. The Applicant meets all requirements imposed by governmental authorities having jurisdiction over the Proposed Facility, including by the FCC, to provide wireless communications in this market area.

The intent of the U.S. Congress, when it enacted the Telecommunications Act of 1996 (“TCA”) was to institute a framework to promote competition and innovation within the telecommunications industry. Under its license from the FCC, T-Mobile is obligated to provide a reliable “product” (i.e. wireless communications service) to the population of the City of Cambridge. Likewise, consumer expectations for increasingly robust and reliable service requires competing service providers (including T-Mobile) to identify and remedy existing gaps in reliable network coverage, or gaps that result from increasing subscriber voice and data traffic beyond the limits of existing network infrastructure. A carrier’s failure to remedy network gaps in a timely fashion can result in a significant loss of subscribers to competing telecommunications carriers. As demonstrated in the Affidavit of Radio Frequency Expert provided by the Applicant and attached hereto, the Proposed Facility and corresponding relief requested are necessary to remedy a gap in reliable service coverage within T-Mobile’s existing network infrastructure.

T-Mobile investigated alternative sites in and around the defined geographic area within which its engineers determined that a facility must be located to fill the gap in service coverage and to function effectively within its network of existing and planned facilities. This is an existing location that is being upgraded with new technology to provide the necessary coverage to the subject area of the City of Cambridge. Therefore, the Proposed Facility in the Business B zoning district is necessary to close the coverage gap that is illustrated on the propagation maps submitted herewith. Consequently, T-Mobile is unable to close a gap in its wireless network without obtaining the requested relief under Section 6409 of the Spectrum act or a Special Permit to modify its existing wireless facility in the Business B zoning district.

Furthermore, Section 6409(a) of the Spectrum Act mandates that state and local governments “may not deny, and shall approve, any eligible facilities request for a modification
of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station.” Under Section 6409(a)(2)(A)-(C) an Eligible Facilities Request is any request to modify a Tower or Base Station that involves “collocations of new Transmission Equipment,” “removal,” or “replacement” of Transmission Equipment.

Because federal law now preempts many of the permit application requirements that this jurisdiction would previously have required from an Applicant, we have provided, on the attached EFR, only the information that federal law allows this jurisdiction to consider when reviewing an EFR. As such, we submit that the Wireless Communications set forth in Section 4.32(g), footnote 49 of the Ordinance, provisions are not applicable to Proposed Facility and relief must be granted pursuant to Section 6409(a) of the Spectrum Act.

2. The Board of Zoning Appeal shall consider the extent to which the visual impact of the various elements of the proposed facility is minimized: (1) through the use of existing mechanical elements on the building’s roof or other features of the building as support and background, (2) through the use in materials that in texture and color blend with the materials to which the facilities are attached, or (3) other effective means to reduce the visual impact of the facility on the site.

The Applicant’s design minimizes the visual impact of the Proposed Facility. The facility will be installed on the existing rooftop of the Building and consistent with the Original Decision. The resulting installation will have an increased capacity to better serve the City of Cambridge without the need for an increased number of antennas on the Building. The proposed replacement antennas will be painted to match the color of the existing Building thereby minimizing any visual impacts.

As stated above, federal law now preempts many of the permit applications requirements that the Ordinance sets forth. To the extent that this Board determines that the Applicants’ proposed wireless facility must comply with the Wireless Communications provisions set forth in Section 4.32(g), footnote 49 of the Ordinance, the Applicants submit that they have complied with said requirements, without waiving the argument that such relief is not required.

3. Where it is proposed to erect such a facility in any residential zoning district, the extent to which there is a demonstrated public need for the facility at the proposed locations, the existence of alternative, functionally suitable sites in nonresidential locations, the character of the prevailing uses in the area, and the prevalence of other existing mechanical systems and equipment carried on or above the roof of nearby structures. The Board of Zoning Appeal shall grant a special permit to erect such a facility in a residential zoning district only upon a finding that nonresidential uses predominate in the vicinity of the proposed facility’s location and that the telecommunications facility is not inconsistent with the character that does prevail in the surrounding neighborhood.
The Applicant proposes to install its facility within the Business-B zoning district. As such, this is not applicable.

B.  **The Applicant complies with the Special Permit Criteria set forth in Section 10-43 of the Ordinance:**

1.  **The requirements of the Ordinance can be met:**

As provided above, the Applicant has met the requirements set forth in Section 4.32(g), footnote 49 of the Ordinance.

2.  **Traffic generated or patterns of access or egress would not cause congestion hazard, or substantial change in established neighborhood character for the following reasons:**

The proposed installation will not obstruct existing rights-of-way or pedestrian access and will not change the daily conditions of access, egress, traffic, congestion hazard, or character of the neighborhood. The installation will not require the addition of any new parking or loading spaces. The use is passive and will not change the current conditions or appearance surrounding the Building. The facility will not produce any odors, fumes, noise or waste. There will be no need for water, sewer, or other municipal services.

As mentioned above, once modified, the facility will be unmanned and will only require infrequent visits by a technician, typically two times per month for routine diagnostics and/or maintenance, except in cases of emergency. These infrequent visits will not result in any material increase in traffic or disruption to patterns of access or egress that will cause congestion hazards or cause a substantial change in the established neighborhood character. The Applicant’s maintenance personnel will make use of the existing access roads and parking at the Building.

3.  **The continued operation of or the development of adjacent uses as permitted in the Zoning Ordinance would not be adversely affected by the nature of the proposed use for the following reasons:**

As described above and illustrated on the attached photograph simulations, the modification of the existing facility will produce a minimal change in the appearance of the Building. The modification of the existing facility will blend with the existing characteristics of

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Pursuant to Section 6409(a) of the Spectrum Act, state and local governments “may not deny and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station.” As such, the Applicant submits that they need not apply for a special permit from the board. To the extent that this Board determines that the Applicants’ proposed wireless facility must comply with special permit requirements set forth in Section 10-43 of the Ordinance, the Applicants submit that they have complied with said requirements, without waiving the argument that such relief is not required.
the Building and the surrounding neighborhood. Moreover, the proposed installation will not generate any traffic, smoke, dust, heat, glare, discharge of noxious substances, nor will it pollute waterways or groundwater. Conversely, the surrounding properties and general public will benefit from the potential to enjoy improved wireless communication.

4. Nuisance or hazard would not be created to the detriment of the health, safety, and/or welfare of the occupant of the proposed use or the citizens of the City for the following reasons:

The operations of the proposed telecommunications facility will not adversely impact the health, safety, and the welfare of the residents of the City of Cambridge. On the contrary, the proposed use will benefit the City and promote the safety and welfare of its residents, businesses and drivers by providing reliable state-of-the-art digital wireless voice and data services. Further, the site will improve the reliability of emergency communications with the police and fire departments by eliminating dropped or blocked calls due to inadequate signal strength or insufficient network capacity to handle call volume, particularly important during emergency situations.

The Proposed Facility will comply with all federal, state and local safety requirements including the standards established by the FCC, Federal Aviation Administration (FAA), the American Standards Institute (ANSI), and the Massachusetts Department of Public Health (MDPH).

Accordingly, the Proposed Facility will not adversely impact the health, safety and/or welfare of the neighborhood or the residents of the City of Cambridge.

5. For other reasons, the proposed installation will not impair the integrity of the district or adjoining district or otherwise derogate from the intent or purpose of this ordinance for the following reasons:

The Proposed Facility is designed to blend with the existing characteristics of the Property, reducing any visual impacts to the surrounding area. Accordingly, the Proposed Facility’s design results in a minimal impact on the underlying and adjacent zoning district and is consistent with the Ordinance’s intention to allow for less intrusive wireless telecommunications facilities in all districts (other than Open Space), including the Business B zoning districts.

As mentioned above, the proposed modifications to the existing installation will not generate any traffic, smoke, dust, heat, glare, discharge or noxious substances, nor will it pollute waterways or groundwater.

6. The new use of the building construction is consistent with the Urban Design Objective set for Section 19.30 of the Ordinance:

Not Applicable. The Applicant is not proposing to construct a new building or structure.
IV. **Summary**

The Applicant hereby requests that the Board determine that the City of Cambridge has the right to authorize the construction of the Proposed Facility through the issuance of a Building Permit, pursuant to Section 6409(a) of the Spectrum Act. Or, in the alternative, its proposed modifications to the existing telecommunications facility will not have any adverse effect on the neighborhood within which the Property is located in particular, and the City of Cambridge as a whole. The findings are made in view of the particular characteristics of the Property and of the Applicant’s proposed siting and equipment, as detailed above. This Property is the most appropriate location for the installation and operation of the wireless communications facility.

For the foregoing reasons the Applicant respectfully requests that the Board grant the foregoing relief pursuant to Section 6409(a) of the Spectrum Act or, in the alternative, zoning relief in the form of a Special Permit and such other relief as the Board deems necessary to allow the installation and operation of the Applicant’s Proposed Facility.

Sincerely,

Ricardo M. Sousa  
Direct: 617-456-8123  
Email: rsousa@princelobel.com
## BEA APPLICATION FORM
### DIMENSIONAL INFORMATION

**APPLICANT:** T-Mobile Northeast  
**PRESENT USE/OCCUPANCY:**  
**LOCATION:** 1 Brattle Square  
**ZONE:** Business B  
**PHONE:** 617-456-8123  
**REQUESTED USE/OCCUPANCY:** Wireless Telecommunications

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<th>Requested Conditions</th>
<th>Ordinance Requirements</th>
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Describe where applicable, other occupancies on same lot, the size of adjacent buildings on same lot, and type of construction proposed, e.g.; wood frame, concrete, brick, steel, etc.

The proposed installation involves a modification of an existing Wireless Telecommunications Facility, more commonly referred to as a "collocation".

1. SEE CAMBRIDGE ZONING ORDINANCE ARTICLE 5.000, SECTION 5.30 (DISTRICT OF DIMENSIONAL REGULATIONS).
2. TOTAL GROSS FLOOR AREA (INCLUDING BASEMENT 7'-0" IN HEIGHT AND ATTIC AREAS GREATER THAN 5') DIVIDED BY LOT AREA.
3. OPEN SPACE SHALL NOT INCLUDE PARKING AREAS, WALKWAYS OR DRIVEWAYS AND SHALL HAVE A MINIMUM DIMENSION OF 15'.

(ATTACHMENT B - PAGE 4)
PHOTO SIMULATION

4BSM457A
BRATTLE SQUARE

Address:
1 Brattle Square
CAMBRIDGE, MA 02138

Date:
16 MARCH 2016

Prepared by
Nanepashemet Project Management, Inc.
328 West Shore Drive
Marblehead, MA 01945
PHOTO LOCATION 1 - PROPOSED

PROPOSED ANTENNA
PHOTO LOCATION 2 - EXISTING

EXISTING ANTENNAS

4BSM457A - BRATTLE SQUARE
PHOTO LOCATION 2 - PROPOSED

PROPOSED ANTENNA

4BSM457A - BRATTLE SQUARE