CITY OF CAMBRIDGE
MASSACHUSETTS
BOARD OF ZONING APPEAL
831 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02139
617 349-6100

2018 JUL 25 AM 11:41
OFFICE OF THE CITY CLERK
CAMBRIDGE, MASSACHUSETTS

BZA APPLICATION FORM

Plan No: BZA-016938-2018

GENERAL INFORMATION

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

Special Permit : √ **Variance :** _____ **Appeal :** _____

PETITIONER : New Cingular Wireless PCS, LLC - C/O Ryan Lynch, Smartlink LLC, Authorized A

PETITIONER'S ADDRESS : 85 Rangeway Road, Building 3, Suite 102 North Billerica, MA 01862

LOCATION OF PROPERTY : 102 Sherman St Cambridge, MA

TYPE OF OCCUPANCY : C-2 **ZONING DISTRICT :** Residence C-2 Zone

REASON FOR PETITION :

Other: Wireless Communications Upgrade

DESCRIPTION OF PETITIONER'S PROPOSAL :

The application is an eligible facilities request pursuant to Section 6409 of the Middle Class Tax and Job Creation Act of 2012, 47 USC 1455; or in the alternative, for a special permit under the zoning ordinance as cited above, if and to the extent necessary, all rights reserved. AT&T proposes to replace 3 existing antennas, and add and upgrade other telecommunications equipment as part of nationwide network upgrades.

SECTIONS OF ZONING ORDINANCE CITED :

Article	4.000	Section	4.32.G.1 (Telecommunications Facility).
Article	4.000	Section	4.40 (Footnote 49) (Telecommunications Facility).
Article	10.000	Section	10.40 (Special Permit).
Article	6409	Section	(Middle Class Tax Relief & Job Creation Act).

Original Signature(s) : _____
(Petitioner(s) / Owner)

Ryan. Lynch / Smartlink / AT&T
(Print Name)

Address : 85 Rangeway Rd, Bldg 3 Ste 102
N. Billerica, MA 01862

Tel. No. : (781) 392-4040

E-Mail Address : Ryan.Lynch@Smartlinkllc.com

Date : 7/24/18

CITY OF CAMBRIDGE
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Article 10.000 Section 10.40 (Special Permit).
Article 6409 Section (Middle Class Tax Relief & Job Creation Act).

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(Print Name)

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Date : 7/24/18

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 WSQ Limited Partnership
(OWNER)

Address: 6 Faneuil Hall Marketplace, Boston, MA 02109

State that I/We own the property located at 102 Sherman St., Cambridge, MA 02140 which is the subject of this zoning application.

The record title of this property is in the name of WSQ Limited Partnership

*Pursuant to a deed of duly recorded in the date 9/28/2000, Middlesex South County Registry of Deeds at Book 31876, Page 596; or Middlesex Registry District of Land Court, Certificate No. _____ Book _____ Page _____.

WSQ Limited Partnership
By:WSQ Investment LLC, its GP
By: Winn LLC Manager, Inc., its Manager
By: Gilbert J. Winn, President

*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 Suffolk

The above-name Gilbert J. Winn personally appeared before me, this 10 of April, 2018, and made oath that the above statement is true.

Kelly Noe Notary

My commission expires 12.14.18 (Notary Seal).

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

KELLY NOE
Notary Public
COMMONWEALTH OF MASSACHUSETTS
My Commission Expires On
December 14, 2018

BZA APPLICATION FORM

SUPPORTING STATEMENT FOR A SPECIAL PERMIT

Please describe in complete detail how you meet each of the following criteria referring to the property and proposed changes or uses which are requested in your application. Attach sheets with additional information for special permits which have additional criteria, e.g.; fast food permits, comprehensive permits, etc., which must be met.

Granting the Special Permit requested for 102 Sherman St Cambridge, MA (location) would not be a detriment to the public interest because:

A) Requirements of the Ordinance can or will be met for the following reasons:

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

C) 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:

D) 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:

E) For other reasons, the proposed use would 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:

Donna P. Lopez, City Clerk City of Cambridge City Hall 795 Massachusetts Avenue Cambridge, MA 02139	Constantine Alexander, Chair Board of Zoning Appeal City Hall 795 Massachusetts Avenue Cambridge, MA 02139

Applicant: New Cingular Wireless PCS, LLC ("AT&T")
Property Address: 102 Sherman Street

Re: Assessor's Map 203B, Lot 66 (the "Property")
Application for:
(i) Eligible Facilities Request pursuant to Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012, 47 U.S.C. § 1455; or, in the alternative,
(ii) Special Permit under Cambridge Zoning Ordinance Section 4.32(g)(1) and M.G.L. c. 40A, Section 9; and
(iii) Any other zoning relief required.
(All relief if and to the extent necessary, all rights reserved)

Dear Ms. Lopez, Mr. Alexander and Members of the Board of Zoning Appeal:

Pursuant to Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012 (a/k/a the "Spectrum Act" or "Section 6409"), 47 U.S.C. § 1455, as further implemented by the Federal Communications Commission's Report and Order *In re Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies*, FCC Docket No. 13-238, Report and Order No. 14-153 (October 17, 2014) (the "FCC Order"), New Cingular Wireless PCS, LLC ("AT&T") hereby submits this Eligible Facilities Request ("Request"); and, in the alternative, applies for a special permit from the City of Cambridge Board of Zoning Appeal (the "Board") under Section 432(g)(1) of the Cambridge Zoning Ordinance (the "Ordinance") to modify its existing "Telephone Exchange including Transmission Facilities to serve a Mobile Communication System" (the "Facility") on and within the existing building located at 102 Sherman Street (the "Special Permit Application").[2]

Under Section 6409, AT&T's proposed modification of its existing transmission equipment on and within the existing building, previously approved by the Board for use as a wireless communication base station, does "not substantially change the physical dimensions" of the existing building. Therefore, AT&T's Request must be approved administratively, including the issuance of a building permit, to enable AT&T to make the proposed modifications to its transmission equipment.

[2] AT&T submits this Request, Special Permit application and supporting materials subject to a full and complete reservation of AT&T's rights under the Spectrum Act and the FCC Order including without limitation its rights with respect to (i) any submittal requirements or approval criteria that are inconsistent with the prohibitions established by the FCC Order, (ii) any delay beyond the deadlines established in the FCC Order, (iii) the imposition of conditions on any approval that are inconsistent with the FCC Order, and (iv) referral or requirement to a discretionary review process such as a special permit.

In the alternative, as demonstrated in this application letter, the AT&T's proposed modifications to its existing Facility on the Property located in the PUD-2 & Residence C-3A zoning district satisfy the requirements for the grant of a special permit pursuant to Section 10.43 of the Ordinance.

I. APPLICATION PACKAGE

Enclosed with this application is a check payable to the City of Cambridge in the amount of $500.00. In addition to the signed original of this letter are copies of the letter and the following materials:

1. The following completed and signed application forms:

   a. BZA Application Form – General Information;
   b. BZA Application Form – Ownership Information;
   c. BZA Application Form – Dimensional Requirements;
   d. BZA Application Form – Supporting Statement for a Special Permit; and
   e. BZA Application Form – Check List;

2. AT&T's relevant FCC License information;

3. The following drawings prepared by Infinigy

SHEET	TITLE	REV DATE
T1	Title Page	4/3/18
C1	General Notes	4/3/18
C2	Overall Site Plan	4/3/18
C2A	Enlarged Site Plan	4/3/18
C3	Elevation View	4/3/18
C4	Antenna Orientation Plan	4/3/18
C5	Equipment Details	4/3/18
C6	Plumbing Diagram	4/3/18
C7	Grounding Details	4/3/18

4. Manufacturer's specification sheets for AT&T's proposed antennas and other featured equipment;

5. Photographs of the existing building and photo simulations of the proposed modifications Facility by Infinigy dated 4/03/2018

6. Radio Frequency Coverage Report, demonstrating the public need for the proposed modifications to the Facility, radio frequency coverage maps showing (a) existing or predicted coverage from neighboring facilities; and (b) coverage with the proposed Facility;

7. Structural Analysis by Infinigy dated 1/2/2018

8. Maximum Permissible Exposure Study, Theoretical Report, by Site Safe, dated January 25, 2018

9. Deed to subject property;

10. Attorney General's letters to the Towns of Mount Washington, Lynnfield and Montague; and

11. Special Permit for the existing Facility granted by the BZA on April 9, 2014.

II. PROPOSED FACILITY DESIGN

The proposed modifications include the replacement of one (1) antenna per sector. The replacement antennae will be mounted on an existing penthouse Twelve (12) remote radio-head units (RRUs) will be mounted under the existing antennas along with the existing radio units.

The Facility's design is shown in detail in the Drawings attached as Exhibit 3 to this application letter and featured equipment is described in the manufacturers' specification sheets attached as Exhibit 4. The photographs and photo simulations (Exhibit 5) show the existing Facility from various locations in the neighborhood around the Property and as simulated with proposed modifications. A structural analysis for the Facility demonstrates that the building is capable of supporting AT&T's proposed equipment at or near the locations shown on the Drawings (*see* Exhibit 7).

The Facility will continue to bring advanced wireless voice, text and data communications services to the surrounding areas. It will allow residents, professionals, government, businesses and students to communicate locally, nationally and internationally from virtually any location within the coverage area. In the event of an emergency, the improved Facility will allow immediate contact with fire, rescue and other emergency personnel. The improved Facility will thus enhance public health, safety and welfare both in ordinary daily living and in the event of fire, accident, medical emergency, natural disaster or other dangers.

III. BACKGROUND

AT&T is licensed by the Federal Communications Commission to construct and operate a wireless telecommunications network in various markets throughout the country, including the Commonwealth of Massachusetts and the City of Cambridge. A copy of the AT&T's FCC license that covers the area of the proposed Facility is included with this application (*see* Exhibit 2). AT&T is in the process of designing and constructing additional wireless facilities to its existing telecommunications system to serve Massachusetts. One of the key design objectives of its systems is

to provide adequate and reliable 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 extent of use of AT&T's wireless services within the network, and the existing topography and obstructions. 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. In urban settings, this dynamic requires the antennas to be located on buildings at heights and in locations where the signal is not obstructed or degraded by other buildings or by topographical features such as hills.

IV. RF COVERAGE DETERMINATION

AT&T has performed a study of radio frequency coverage for the City of Cambridge and from the Property, the results of which are described in the Radio Frequency Report submitted with this application (see Exhibit 6). Without the proposed modifications to its existing Facility, AT&T has a substantial coverage gap in this area of Cambridge. AT&T has determined that the proposed modifications to the existing Facility located on the building at the Property will provide needed coverage to the targeted sections of the City and the immediately surrounding area if AT&T's antennas are located on the building's roof at the height and in the configuration requested. The importance of a facility at this location is underscored by AT&T's interest in enhancing its ability to provide its most up-to-date wireless technology, known as long-term evolution technology ("LTE"), in this area to satisfy its customers' ever-increasing needs for high-speed data services. Radio frequency coverage maps included in the report are provided to pictorially and vividly show the differences in existing and proposed wireless coverage at the various bands authorized for AT&T's service. The maps show dramatic improvements to wireless coverage at all three (3) bands with the inclusion of the proposed Facility, namely, at 700, 1900, and 2100 MHz.

V. THE FEDERAL SPECTRUM ACT AND THE FCC ORDER

As set forth below, the proposed modifications constitute an Eligible Facilities Request pursuant to the federal Spectrum Act,[3] as further implemented by the FCC Order.[4]

Under the Spectrum Act, as further clarified by the FCC Order, the streamlined process for this Eligible Facilities Request is limited to non-discretionary review. Specifically, the FCC Order "adopt[s] an objective standard for determining when a proposed modification will

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[3] Pursuant to Section 6409(a)(2) an "eligible facilities request" means any request for modification of an existing wireless tower or base station that involves—

(A) collocation of new transmission equipment;
(B) removal of transmission equipment; or
(C) replacement of transmission equipment.

47 U.S.C. § 1455(a)(2).

[4] The Order was effective on February 9, 2015, except for § 1.40001, which became effective on April 8, 2015, except for §§ 1.40001(c)(3)(i), 1.40001(c)(3)(iii), 1.140001(c)(4), and 17.4(c)(1)(vii), which became effective on May 18, 2015, after approval by the Office of Management and Budget. The FCC Order makes clear that under the Spectrum Act discretionary review is not required or permitted for an Eligible Facilities Request.

'substantially change the physical dimensions' of an existing tower or base station." *FCC Order*, ¶ 87. As stated in the FCC Order, Section 6409 "states without equivocation that the reviewing authority 'may not deny, and shall approve' any qualifying application. This directive leaves no room for a lengthy and discretionary approach to reviewing an application that meets the statutory criteria." *FCC Order*, ¶ 116.

In issuing the FCC Order and eliminating discretionary review for eligible facilities requests, the FCC's goal was to "adopt a test that is defined by specific, objective factors rather than the contextual and entirely subjective standard advocated by the IAC and municipalities." The FCC intentionally sought to reduce "flexibility" and "open ended context-specific approach" engendered by the discretionary review process:

> While we acknowledge that the IAC approach would provide municipalities with maximum flexibility to consider potential effects, we are concerned that it would invite lengthy review processes that conflict with Congress's intent. Indeed, some municipal commenters anticipate their review of covered requests under a subjective, case-by-case approach could take even longer than their review of collocations absent Section 6409(a). We also anticipate that disputes arising from a subjective approach would tend to require longer and more costly litigation to resolve given the more fact-intensive nature of the IAC's open-ended and context-specific approach. We find that an objective definition, by contrast, will provide an appropriate balance between municipal flexibility and the rapid deployment of covered facilities. We find further support for this approach in State statutes that have implemented Section 6409(a), all of which establish objective standards.

FCC Order, ¶ 88.

As a result, the FCC Order implementing Section 6409 establishes clear and objective criteria for determining eligibility, limits the types of information that a municipality may require when processing an application for an eligible facilities request, and imposes a "deemed granted" remedy for failure to timely process and eligible facilities request.[5] The FCC Order also establishes significant limits on the information that can be required to be provided with an eligible facilities request and limits it to only that information "reasonably related to determining whether the request meets the requirements of this section. A State or local government may not require an applicant to submit any other documentation". 47 CFR 1.40001(c)(1).

Both before and after the FCC Order was issued, the Massachusetts Attorney General's Office provided clear guidance that an eligible request cannot be subjected to a discretionary special permit process. *See* Attorney General's letters to (i) Town of Mount Washington, dated June 12, 2014, p. 3 (ii) Town of Lynnfield, dated February 10, 2015, p. 3 (the "AG Lynnfield Letter") and (iii) Town of Montague, dated February 23, 2015, p. 2 (all attached hereto). As set forth in each letter [t]he Act's requirement that a local government 'may not deny, and shall approve, any eligible facilities request' means that a request for modification to an existing facility that does not substantially change the physical dimensions of the tower or base station

[5] *See* 47 CFR §§1.40001(c)(1) - (c)(4).

must be approved. ***Such qualifying requests also cannot be subject to a discretionary special permit.***")(Emphasis added). In providing these opinions, the Attorney General's Office specifically opined that provisions in zoning ordinances that specifically required a special permit for modifications to existing facilities could not be applied to eligible facilities requests. While approving the Town of Lynnfield's Zoning Bylaw, the Attorney General stated that "Section 8.7.5.1 requires that PWSF may only be erected upon the grant of a special permit. The Town cannot apply this requirement to eligible facilities requests for modification to existing facilities that qualify for required approval under Section 6409 of the Act." *AG Lynnfield Letter*, p. 3.

Therefore, as set forth in the FCC Order and Attorney General's opinion letters, the City cannot impose a requirement that AT&T obtain a special permit, or an amendment to an existing special permit utilizing the same discretionary review process, in connection with its eligible facilities request. To the extent that the City of Cambridge's Zoning Ordinance and any prior decisions by the Board include provisions seeking to further regulate the modification of wireless communication facilities, federal law overrules those requirements. *See* Sprint Spectrum L.P. v. Town of Swansea, 574 F.Supp.2d 227, 236 (2008) (Board is obligated to consider whether its actions would violate federal law even if a different outcome would be permitted under state law). The standard of review for an application to modify an existing wireless communication facility on an existing tower or base station is governed by the Spectrum Act and the FCC Order which require eligible facilities requests to be permitted "by right."

In addition, the FCC Order establishes a 60-day period for approval from the time of AT&T's submission. 47 CFR §1.40001(c)(2). Within the context of the Spectrum Act and FCC Order, approval means all necessary approvals to permit the proposed modifications, including the issuance of a building permit, if required. The FCC found that this 60-day period is appropriate due to "the more restricted scope of review applicable to applications under section 6409(a)." *FCC Order*, ¶ 108. If the Request is not acted upon within the 60-day period, it is deemed granted. 47 CFR §1.40001(c)(4).

As set forth below, the proposed modifications constitute an eligible facilities request. Therefore, AT&T respectfully requests the Board to find that Section 4.32(g)(1) of the Ordinance does not apply to its Request.

VI. THE PROPOSED MODIFICATIONS ARE AN ELIGIBLE FACILITIES REQUEST

Under Section 6409 and the FCC Order, a "base station" means "[a] structure or equipment at a fixed location that enables Commission-licensed or authorized wireless communications between user equipment and a communications network." 47 C.F.R §1.40001(b)(1). A Base Station includes "any structure other than a tower" that supports or houses "authorized wireless communications between user equipment and a communications network." 47 C.F.R §1.40001(b)(1). Therefore, the existing building that is currently used for FCC-licensed transmissions for personal wireless services is a "base station" for purposes of Section 6409.

AT&T proposes to modify its existing Facility as described above and depicted on the Plans submitted herewith.

The proposed modifications will not require the installation of any part of the facility on the ground outside of the building.

As a result, AT&T's proposed modifications involving the removal and replacement of the existing transmission equipment constitute an "eligible facilities request" under Section 6409. The proposed eligible facilities request is not a "substantial modification" under Section 6409 and the FCC Order because it does not:

(i) Result in an increase in "the height of the structure by more than 10% or more than ten feet, whichever is greater" because the proposed replacement antennas will either be mounted and located below the screen wall or utilize the existing equipment mounting frame and therefore will not exceed 10 feet above the existing building;

(ii) Protrude from the edge of the building by more than six feet because AT&T's proposed antennas will not protrude more than six feet from building façade;

(iii) Involve the installation of more than the standard number of new equipment cabinets for the technology involved, but not to exceed four cabinets, because no new radio communications equipment cabinets will be installed;

(iv) Require any excavation or deployment outside the current site of the tower or base station because all antennas, equipment cabinets and related equipment will be installed entirely on and within the existing building; or

(v) Otherwise defeat the existing concealment elements of the tower or base station because the proposed replacement antennas will be located behind the existing screen wall or utilize the existing mounting frame and will continue to integrate the Facility into the existing architecture of the building. Therefore, AT&T's proposed Facility will remain aesthetically consistent with the exterior finish of the building as well as maintain the concealment elements of the original design.

See FCC Order, §1.40001(b)(7)(i)-(v).

VII. COMPLIANCE WITH THE CAMBRIDGE ZONING ORDINANCE

In the alternative, AT&T respectfully requests the Board to grant a special permit for the proposed modifications to the existing Facility.[6]

A. AT&T complies with the Wireless Communications provisions set forth in Section 4.32(g)(1), and Section 4.40, Footnote 49 of the Ordinance.

AT&T's proposed modifications comply with Section 4.32(g)(1), and Section 4.40, Footnote 49 of the Ordinance as follows:[7]

Section 4.32(g)(1): Section 4.32(g)(1) of the Ordinance allows for the use of a "*[t]elephone exchange (including switching, relay, and transmission facilities serving mobile communications systems) and any towers or antennas accessory thereto.*" Under the Table of Use Regulations beginning at Section 4.30, AT&T's proposed use of the Facility as a transmission facility serving a mobile communications system is permitted by special permit in the PUD-2 & Residence C-3A zoning district *(see* the table at Section 4.32(g)(1)).

Section 4.40, Footnote 49: Section 4.32(g)(1) includes a reference to Section 4.40, Footnote 49 which sets out the standards for granting the special permit. AT&T's proposed Facility complies with Footnote 49's standards as noted below:

1. **The Board of Zoning Appeal shall consider "[t]he scope of or limitations imposed by any license secured from any state or federal agency having jurisdiction over such matters."**

AT&T's Response: AT&T's FCC license is included with this application and the license information included shows that AT&T is authorized to provide wireless service in the area served by the Facility (*see* Exhibit 2).

2. **The Board of Zoning Appeal shall consider "[t]he 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."**

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[6] AT&T's request is made, if and to the extent necessary, with all rights reserved. As discussed above, the FCC Order establishes a 60-day period for receipt of all necessary approvals from the time of AT&T's submission, including a building permit, if required. 47 CFR §1.40001(c)(2). If the Request is not acted upon within the 60-day period, it is deemed granted. 47 CFR §1.40001(c)(4). Therefore, AT&T expressly reserves its rights under 47 CFR §1.40001(c)(2) and (4).

[7] To the extent that Section 4.32(g)(1), and Section 4.40, Footnote 49 of the Ordinance purport to require the submission of information that is beyond the scope permitted by the FCC Order or Spectrum Act, AT&T expressly reserves, and does not waive, its right to assert that such information is not required under the Spectrum Act and the submission of such information shall not constitute a waiver of AT&T's rights pursuant thereto.

AT&T's Response: The design of the overall Facility, including the choice and placement of replacement antennas and associated equipment, behind the existing screen wall or utilizing the existing mounting frame, minimizes the visual impact of the proposed Facility. This is because the proposed modifications will be minimally visible and consistent with the elements of the existing Facility. The minimal visual impact of the Facility is shown in the photographs of the existing Facility and the photo simulations that superimpose the proposed modifications to the existing Facility (*see,* Exhibit 5).

3. **The Board of Zoning Appeal shall consider "[w]here 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 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.**

   In granting a special permit the Board of Zoning Appeal shall set forth in its decision under which circumstances or procedures, if any, the permittee shall be allowed to replace and upgrade its equipment without the necessity of seeking a new special permit."

AT&T's Response: As demonstrated by the Radio Frequency Report and the associated coverage maps, AT&T has demonstrated an immediate and compelling need for the proposed modifications to its existing Facility located at the Property in order to provide substantially improved indoor coverage to residents, businesses, students and faculty, and the general public in that area. AT&T also seeks to substantially improve its ability to satisfy the ever-increasing need of its customers for data accessibility, navigation and use. This is especially critical in and around the area of Sherman Street which also serves as home for numerous businesses. AT&T proposes to satisfy its RF coverage needs in the area by adding to the existing Facility the antennas and equipment necessary to provide the latest LTE wireless communications service technology. By modifying its existing Facility, AT&T obviates the need to construct an entirely new facility within this area of Cambridge in order to meet the wireless network coverage needs of the residents, businesses, and general public in the area.

As provided in Footnote 49, AT&T requests that once permission is received from the City to site the Facility at the Property, the Board permit AT&T to replace and upgrade the equipment at this Facility in the future without further zoning proceedings or a new special permit, provided that such equipment shall meet the eligible facilities request criteria set forth in 47 CFR § 1.40001.

B. AT&T complies with the Special Permit Criteria set forth in Section 10.43 of the Ordinance.

Section 10.43 of the Ordinance specifies the following criteria for issuance of a special permit: "Special permits will normally be granted where specific provisions of this Ordinance are met, except when particulars of the location or use, not generally true of the district or of the uses permitted in it, would cause granting of such permit to be to the detriment of the public interest because:

(a) The requirements of this Ordinance cannot or will not be met, or

AT&T's Response: As provided above, AT&T's proposed modifications comply with the requirements set forth in Section 4.32(g), Footnote 49 of the Ordinance, the Spectrum Act and the eligible facilities request criteria set forth in 47 CFR § 1.40001. Granting the special permit would not be a detriment to the public interest and is consistent with the Board's obligations pursuant to the Spectrum Act and FCC Order.

(b) Traffic generated or patterns of access or egress would cause congestion, hazard, or substantial change in established neighborhood character for the following reasons, or

AT&T's Response: The proposed modifications to AT&T's existing Facility will not result in any change to the existing traffic on or near the Property. The Facility will continue to be unmanned and only require infrequent visits by a technician (typically two times per month for routine diagnostics and/or maintenance, except in cases of emergency), there will be no material increase in traffic or disruption to patterns of access or egress that will cause congestion, hazards or a substantial change in the established neighborhood character. AT&T's maintenance personnel will make use of the existing access roads and parking at the building. Granting the special permit would not be a detriment to the public interest and is consistent with the Board's obligations pursuant to the Spectrum Act and FCC Order.

(c) The continued operation of or the development of adjacent uses as permitted in the Zoning Ordinance would be adversely affected by the nature of the proposed use, or

AT&T's Response: As described above and illustrated on the attached photographs and photo simulations (*see* Exhibit 5) the proposed modifications to the existing Facility will result in a *de minimis* change in the appearance of the building. As a result, the Facility as a whole either will continue to be hidden from view or will visually blend with existing characteristics of the building and the surrounding neighborhood. Because the proposed installation will not generate any traffic, smoke, dust, heat or glare, discharge noxious substances, nor pollute waterways or groundwater, it will not adversely affect residential uses on neighboring streets. Conversely, the surrounding properties and general public will benefit from the potential to enjoy improved wireless communications services. Granting the special permit would not be a detriment to the public interest and is consistent with the Board's obligations pursuant to the Spectrum Act and FCC Order.

(d) Nuisance or hazard would 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, or

AT&T's Response: Because the proposed modifications to the existing Facility will not cause the Facility to generate any traffic, smoke, dust, heat or glare, discharge noxious substances, nor pollute waterways or groundwater, no nuisance or hazard will be created to the detriment of the health, safety, or welfare of the occupants of the building or the residents of the City of Cambridge. To the contrary, the proposed Facility 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 that 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 Facility, as modified, will continue to comply with all federal, state and local safety requirements including the standards established by the FCC and Federal Aviation Administration (FAA). (*See* Exhibit 8 Maximum Permissible Exposure Study, Theoretical Report). Granting the special permit would not be a detriment to the public interest and is consistent with the Board's obligations pursuant to the Spectrum Act and FCC Order.

(e) For other reasons, the proposed installation would impair the integrity of the district or adjoining district or otherwise derogate from the intent or purpose of this Ordinance, or

AT&T's Response: The purpose of the Ordinance is multifaceted, the relevant aspects of which relating to wireless telecommunications facilities include the lessening of congestion in the streets, conserving health, securing safety from fire, flood, panic and other danger, conserving the value of land and buildings and natural resources, preventing blight and pollution, encouraging the most rational use of land throughout the city, including encouraging appropriate economic development, and protecting residential neighborhoods from incompatible activities.

As noted above, the proposed modifications to the existing Facility directly accord with the purposes of the Ordinance because the modifications will not result in any traffic, smoke, dust, heat or glare, discharge noxious substances, nor pollute waterways or groundwater. As the Facility will improve the ability of residents, businesses, travelers and drivers in the area to access state-of-the-art wireless technology, the City's ability to provide emergency services will be improved, as will the economic development of the City as more people will be able to conduct commerce by virtue of a mobile platform. Because the proposed modifications to the existing Facility will be installed on an existing building that includes the Facility, and the proposed modifications are consistent with the existing concealment elements, the proposed modifications to the existing Facility are in consistent with the building's character and will not affect the value of the building or the natural resources of the City. Because the proposed modifications to the existing Facility are designed to be consistent with the existing concealment elements of the Facility and characteristics of the Property, the visual impact on the underlying and adjacent zoning districts will be *de minimis*. As a result, the proposed modifications to the existing Facility are consistent with the Ordinance's purpose to allow for less intrusive wireless telecommunications facilities in all districts (other than Open Space) including the applicable overlay districts, and the underlying PUD-2 & Residence C-3A district. Granting the special permit would not be a detriment to the public interest and is consistent with the Board's obligations pursuant to the Spectrum Act and FCC Order.

(f) The new use or building construction is inconsistent with the Urban Design Objectives set forth in Section 19.30

AT&T's Response: As stated in the Section 19.30, the Citywide Urban Design Objectives ("Objectives") "are intended to provide guidance to property owners and the general public as to the city's policies with regard to the form and character desirable for new development in the city. It is understood that application of these principles can vary with the context of specific building proposals in ways that, nevertheless, fully respect the policies' intent. It is intended that proponents of projects, and city staff, the Planning Board and the general public, where public review or approval is required, should be open to creative variations from the detailed provisions presented in this Section as long as the core values expressed are being served. ***A project need not meet all the objectives of this Section 19.30 where this Section serves as the basis for issuance of a special permit. Rather the permit granting authority shall find that on balance the objectives of the city are being served.*** Nor shall a project subject to special permit review be required to conform to the Required Building and Site Plan Requirements set forth in Section 11.50." [emphasis added]. For the reasons stated in AT&T's response to this Section 10.43(f) of the Zoning Ordinance and in its application generally, "on balance, the objectives of the city are being served" by the installation of the proposed modifications at the Property so that granting the special permit would not be a detriment to the public interest and is consistent with the Board's obligations pursuant to the Spectrum Act and FCC Order.

The following are the Objectives' headings as appearing in the Ordinance:

19.31: New projects should be responsive to the existing or anticipated pattern of development.

AT&T's Response: The existing Facility is located on and within the existing building, some of the equipment of which is hidden from view behind the screen wall and within the building, or otherwise obstructed from view, and the remaining equipment utilizes the existing antenna mounting frame and blends with the structures and colors of the building to the extent feasible. The proposed modifications to the existing Facility are consistent with the previously approved design and concealment elements of the existing Facility. Therefore, the proposed modifications are responsive to the existing pattern of development in the Property's applicable zoning and overlay districts.

19.32: Development should be pedestrian and bicycle-friendly, with a positive relationship to its surroundings.

AT&T's Response: The existing Facility is located on and within the existing building. The Facility is only accessed by authorized AT&T personnel for routine maintenance one to two times per month and is not accessed by the general public. The proposed modifications to the existing Facility will not result in any increase in routine visits nor otherwise result in a change in traffic patterns in the vicinity of the Property that would affect pedestrian flow or cyclists' access to the building or surrounding areas within the Property's applicable zoning districts.

19.33 The building and site design should mitigate adverse environmental impacts of a development upon its neighbors. Indicators include[8]

(1) Mechanical equipment that is carefully designed, well organized or visually screened from its surroundings and is acoustically buffered from neighbors. Consideration is given to the size, complexity and appearance of the equipment, its proximity to residential areas, and its impact on the existing streetscape and skyline. The extent to which screening can bring order, lessen negative visual impacts, and enhance the overall appearance of the equipment should be taken into account. More specifically:

(a) Reasonable attempts have been made to avoid exposing rooftop mechanical equipment to public view from city streets. Among the techniques that might be considered are the inclusion of screens or a parapet around the roof of the building to shield low ducts and other equipment on the roof from view.

(b) Treatment of the mechanical equipment (including design and massing of screening devices as well as exposed mechanical elements) that relates well to the overall design, massing, scale and character of the building.

(c) Placement of mechanical equipment at locations on the site other than on the rooftop (such as in the basement), which reduces the bulk of elements located on the roof; however, at-grade locations external to the building should not be viewed as desirable alternatives.

(d) Tall elements, such as chimneys and air exhaust stacks, which are typically carried above screening devices for functioning reasons, are carefully designed as features of the building, thus creating interest on the skyline.

(e) All aspects of the mechanical equipment have been designed with attention to their visual impact on adjacent areas, particularly with regard to residential neighborhoods and views and vistas.

AT&T's Response: As shown in the photo simulations (*see* Exhibit 5), the existing Facility, as proposed to be modified herein, will continue to be visually consistent with the color and texture of the building, the concealment elements of the design of the Facility, and with other existing wireless communications facilities from competing carriers located on the building. As a result, AT&T's Facility is in keeping with the building's existing features without adversely affecting the building's overall design, massing, scale or character.

(2) Trash that is handled to avoid impacts (noise, odor, and visual quality) on neighbors, e.g. the use of trash compactors or containment of all trash storage and handling within a building is encouraged.

[8] Inasmuch as Section 19.33 is most relevant to the Facility, it is stated here in full.

AT&T's Response: The Facility does not generate trash, therefore this design objective is inapplicable.

(3) Loading docks that are located and designed to minimize impacts (visual and operational) on neighbors.

AT&T's Response: The Facility does not utilize any loading dock, therefore this design objective is inapplicable.

(4) Stormwater Best Management Practices and other measures to minimize runoff and improve water quality are implemented.

AT&T's Response: The existing Facility, and the proposed modifications, are located entirely on and within the existing Building on the Property and have no effect on stormwater runoff, therefore this design objective is inapplicable.

(5) Landscaped areas and required Green Area Open Space, in addition to serving as visual amenities, are employed to reduce the rate and volume of stormwater runoff compared to pre-development conditions.

AT&T's Response: The existing Facility and proposed modifications have no effect any landscaped or Green Area Open Space, therefore this design objective is inapplicable.

(6) The structure is designed and sited to minimize shadow impacts on neighboring lots, especially shadows that would have a significant impact on the use and enjoyment of adjacent open space and shadows that might impact the operation of a Registered Solar Energy System as defined in Section 22.60 of this Zoning Ordinance.

AT&T's Response: The existing Facility and proposed modifications are designed so as not to cause shadows on neighboring lots.

(7) Changes in grade across the lot are designed in ways that minimize the need for structural retaining walls close to property lines.

AT&T's Response: The existing Facility and proposed modifications are located entirely on and within the existing building and have no impact on the grade of the Property, therefore this design objective is inapplicable.

(8) Building scale and wall treatment, including the provision of windows, are sensitive to existing residential uses on adjacent lots.

AT&T's Response: The proposed modifications to the existing Facility will not change the building's scale because antennas and equipment will be mounted behind the existing screen wall or on an existing antenna mounting frame already located on the building (*see* Exhibit 3). The existing Facility and proposed modifications are consistent with characteristics of the existing building design, maintain the existing concealment elements of the Facility and therefore minimize any visual impact from the Facility.

(9) Outdoor lighting is designed to provide minimum lighting and necessary to ensure adequate safety, night vision, and comfort, while minimizing light pollution.

AT&T's Response: The existing Facility does not use any outdoor lighting. The proposed modifications to the Facility do not include any additional lighting of the Facility or building. As a result, this design objective is inapplicable.

(10) The creation of a Tree Protection Plan that identifies important trees on the site, encourages their protection, or provides for adequate replacement of trees lost to development on the site.

AT&T's Response: The existing Facility and proposed modifications are located entirely on and within the existing building and have no effect on any trees on the Property, therefore this design objective is inapplicable.

19.34: Projects should not overburden the City infrastructure services, including neighborhood roads, city water supply system, and sewer system.

AT&T's Response: The existing Facility, including the proposed modifications, is a passive use and will not generate trash, odor, excess noise, or utilize water or wastewater services. As such, it will not burden the City's infrastructure services.

19.35: New construction should reinforce and enhance the complex urban aspects of Cambridge as it has developed historically.

AT&T's Response: The proposed modification of the existing Facility located on and within the existing building, will obviate the need for AT&T to construct an additional Facility to address its wireless network coverage need in this area of Cambridge. The existing Facility and the proposed modifications blend the equipment with the building texture and color, and are consistent with the concealment elements of the Facility's design. As a result, the Facility will reinforce the existing Cambridge landscape as it currently is manifested at the Property.

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19.36: Expansion of the inventory of housing in the city is encouraged.

AT&T's Response: The Facility and proposed modifications provide wireless services and will not adversely impact the City's housing inventory.

19.37. Enhancement and expansion of open space amenities in the city should be incorporated into new development in the city.

AT&T's Response: The Facility and proposed modifications are located on and within the existing building. The Facility and proposed modifications will not adversely impact or otherwise reduce open space amenities within the City.

VIII. SUMMARY

For the foregoing reasons AT&T respectfully requests that the Board determine that pursuant to the Spectrum Act and the FCC Order, the Request constitutes an eligible facilities request and therefore AT&T's Request must be approved administratively, including the issuance of a building permit, without the need for further relief from the Board. In the alternative, without waiving its rights, AT&T requests the Board grant the foregoing zoning relief in the form of a Special Permit and such other relief as the Board deems necessary to allow the modification and operation of AT&T's proposed Facility.

Best Regards,

Ryan Lynch
Authorized Agent to New Cingular Wireless PCS, LLC ("AT&T")

cc: Jonathan Elder, Esq.

BZA APPLICATION FORM

DIMENSIONAL INFORMATION

APPLICANT: Ryan Lynch **PRESENT USE/OCCUPANCY:** Telecom

LOCATION: 102 Sherman St Cambridge, MA **ZONE:** Residence C-2 Zone

PHONE: _____ **REQUESTED USE/OCCUPANCY:** No change

		EXISTING CONDITIONS	*REQUESTED CONDITIONS*	*ORDINANCE REQUIREMENTS* [1]	
TOTAL GROSS FLOOR AREA:		0	0	0	(max.)
LOT AREA:		0	0	0	(min.)
RATIO OF GROSS FLOOR AREA TO LOT AREA: [2]		0	0	0	(max.)
LOT AREA FOR EACH DWELLING UNIT:		0	0	0	(min.)
SIZE OF LOT:	WIDTH	0	0	0	(min.)
	DEPTH	0	0	0	
SETBACKS IN FEET:	FRONT	0	0	0	(min.)
	REAR	0	0	0	(min.)
	LEFT SIDE	0	0	0	(min.)
	RIGHT SIDE	0	0	0	(min.)
SIZE OF BLDG.:	HEIGHT	0	0	0	(max.)
	LENGTH	0	0	0	
	WIDTH	0	0	0	
RATIO OF USABLE OPEN SPACE TO LOT AREA: [3]		0	0	0	(min.)
NO. OF DWELLING UNITS:		0	0	0	(max.)
NO. OF PARKING SPACES:		0	0	0	(min./max)
NO. OF LOADING AREAS:		0	0	0	(min.)
DISTANCE TO NEAREST BLDG. ON SAME LOT:		0	0	0	(min.)

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.

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'.

Cambridge Board of Zoning Appeal

Special Permit Application

102 Sherman St., Cambridge, MA

Map 203B Lot 66

Applicant:

New Cingular Wireless PCS, LLC ("AT&T")

c/o Ryan Lynch, Smartlink

Ryan.Lynch@smartlinkllc.com

(781.392.4040)

July 2, 2018

Donna P. Lopez, City Clerk City of Cambridge City Hall 795 Massachusetts Avenue Cambridge, MA 02139	Constantine Alexander, Chair Board of Zoning Appeal City Hall 795 Massachusetts Avenue Cambridge, MA 02139

Applicant: New Cingular Wireless PCS, LLC ("AT&T")
Property Address: 102 Sherman Street

Re: Assessor's Map 203B, Lot 66 (the "Property")
Application for:
(i) Eligible Facilities Request pursuant to Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012, 47 U.S.C. § 1455; or, in the alternative,
(ii) Special Permit under Cambridge Zoning Ordinance Section 4.32(g)(1) and M.G.L. c. 40A, Section 9; and
(iii) Any other zoning relief required.
(All relief if and to the extent necessary, all rights reserved)

Dear Ms. Lopez, Mr. Alexander and Members of the Board of Zoning Appeal:

Pursuant to Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012 (a/k/a the "Spectrum Act" or "Section 6409"), 47 U.S.C. § 1455, as further implemented by the Federal Communications Commission's Report and Order *In re Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies*, FCC Docket No. 13-238, Report and Order No. 14-153 (October 17, 2014) (the "FCC Order"), New Cingular Wireless PCS, LLC ("AT&T") hereby submits this Eligible Facilities Request ("Request"); and, in the alternative, applies for a special permit from the City of Cambridge Board of Zoning Appeal (the "Board") under Section 432(g)(1) of the Cambridge Zoning Ordinance (the "Ordinance") to modify its existing "Telephone Exchange including Transmission Facilities to serve a Mobile Communication System" (the "Facility") on and within the existing building located at 102 Sherman Street (the "Special Permit Application").[2]

Under Section 6409, AT&T's proposed modification of its existing transmission equipment on and within the existing building, previously approved by the Board for use as a wireless communication base station, does "not substantially change the physical dimensions" of the existing building. Therefore, AT&T's Request must be approved administratively, including the issuance of a building permit, to enable AT&T to make the proposed modifications to its transmission equipment.

[2] AT&T submits this Request, Special Permit application and supporting materials subject to a full and complete reservation of AT&T's rights under the Spectrum Act and the FCC Order including without limitation its rights with respect to (i) any submittal requirements or approval criteria that are inconsistent with the prohibitions established by the FCC Order, (ii) any delay beyond the deadlines established in the FCC Order, (iii) the imposition of conditions on any approval that are inconsistent with the FCC Order, and (iv) referral or requirement to a discretionary review process such as a special permit.

In the alternative, as demonstrated in this application letter, the AT&T's proposed modifications to its existing Facility on the Property located in the PUD-2 & Residence C-3A zoning district satisfy the requirements for the grant of a special permit pursuant to Section 10.43 of the Ordinance.

I. APPLICATION PACKAGE

Enclosed with this application is a check payable to the City of Cambridge in the amount of $500.00. In addition to the signed original of this letter are copies of the letter and the following materials:

1. The following completed and signed application forms:

   a. BZA Application Form – General Information;
   b. BZA Application Form – Ownership Information;
   c. BZA Application Form – Dimensional Requirements;
   d. BZA Application Form – Supporting Statement for a Special Permit; and
   e. BZA Application Form – Check List;

2. AT&T's relevant FCC License information;

3. The following drawings prepared by Infinigy

SHEET	TITLE	REV DATE
T1	Title Page	4/3/18
C1	General Notes	4/3/18
C2	Overall Site Plan	4/3/18
C2A	Enlarged Site Plan	4/3/18
C3	Elevation View	4/3/18
C4	Antenna Orientation Plan	4/3/18
C5	Equipment Details	4/3/18
C6	Plumbing Diagram	4/3/18
C7	Grounding Details	4/3/18

4. Manufacturer's specification sheets for AT&T's proposed antennas and other featured equipment;

5. Photographs of the existing building and photo simulations of the proposed modifications Facility by Infinigy dated 4/03/2018

6. Radio Frequency Coverage Report, demonstrating the public need for the proposed modifications to the Facility, radio frequency coverage maps showing (a) existing or predicted coverage from neighboring facilities; and (b) coverage with the proposed Facility;

7. Structural Analysis by Infinigy dated 1/2/2018

8. Maximum Permissible Exposure Study, Theoretical Report, by Site Safe, dated January 25, 2018

9. Deed to subject property;

10. Attorney General's letters to the Towns of Mount Washington, Lynnfield and Montague; and

11. Special Permit for the existing Facility granted by the BZA on April 9, 2014.

II. PROPOSED FACILITY DESIGN

The proposed modifications include the replacement of one (1) antenna per sector. The replacement antennae will be mounted on an existing penthouse Twelve (12) remote radio-head units (RRUs) will be mounted under the existing antennas along with the existing radio units.

The Facility's design is shown in detail in the Drawings attached as Exhibit 3 to this application letter and featured equipment is described in the manufacturers' specification sheets attached as Exhibit 4. The photographs and photo simulations (Exhibit 5) show the existing Facility from various locations in the neighborhood around the Property and as simulated with proposed modifications. A structural analysis for the Facility demonstrates that the building is capable of supporting AT&T's proposed equipment at or near the locations shown on the Drawings (*see* Exhibit 7).

The Facility will continue to bring advanced wireless voice, text and data communications services to the surrounding areas. It will allow residents, professionals, government, businesses and students to communicate locally, nationally and internationally from virtually any location within the coverage area. In the event of an emergency, the improved Facility will allow immediate contact with fire, rescue and other emergency personnel. The improved Facility will thus enhance public health, safety and welfare both in ordinary daily living and in the event of fire, accident, medical emergency, natural disaster or other dangers.

III. BACKGROUND

AT&T is licensed by the Federal Communications Commission to construct and operate a wireless telecommunications network in various markets throughout the country, including the Commonwealth of Massachusetts and the City of Cambridge. A copy of the AT&T's FCC license that covers the area of the proposed Facility is included with this application (*see* Exhibit 2). AT&T is in the process of designing and constructing additional wireless facilities to its existing telecommunications system to serve Massachusetts. One of the key design objectives of its systems is

to provide adequate and reliable 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 extent of use of AT&T's wireless services within the network, and the existing topography and obstructions. 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. In urban settings, this dynamic requires the antennas to be located on buildings at heights and in locations where the signal is not obstructed or degraded by other buildings or by topographical features such as hills.

IV. RF COVERAGE DETERMINATION

AT&T has performed a study of radio frequency coverage for the City of Cambridge and from the Property, the results of which are described in the Radio Frequency Report submitted with this application (see Exhibit 6). Without the proposed modifications to its existing Facility, AT&T has a substantial coverage gap in this area of Cambridge. AT&T has determined that the proposed modifications to the existing Facility located on the building at the Property will provide needed coverage to the targeted sections of the City and the immediately surrounding area if AT&T's antennas are located on the building's roof at the height and in the configuration requested. The importance of a facility at this location is underscored by AT&T's interest in enhancing its ability to provide its most up-to-date wireless technology, known as long-term evolution technology ("LTE"), in this area to satisfy its customers' ever-increasing needs for high-speed data services. Radio frequency coverage maps included in the report are provided to pictorially and vividly show the differences in existing and proposed wireless coverage at the various bands authorized for AT&T's service. The maps show dramatic improvements to wireless coverage at all three (3) bands with the inclusion of the proposed Facility, namely, at 700, 1900, and 2100 MHz.

V. THE FEDERAL SPECTRUM ACT AND THE FCC ORDER

As set forth below, the proposed modifications constitute an Eligible Facilities Request pursuant to the federal Spectrum Act,[3] as further implemented by the FCC Order.[4]

Under the Spectrum Act, as further clarified by the FCC Order, the streamlined process for this Eligible Facilities Request is limited to non-discretionary review. Specifically, the FCC Order "adopt[s] an objective standard for determining when a proposed modification will

[3] Pursuant to Section 6409(a)(2) an "eligible facilities request" means any request for modification of an existing wireless tower or base station that involves—

(A) collocation of new transmission equipment;
(B) removal of transmission equipment; or
(C) replacement of transmission equipment.

47 U.S.C. § 1455(a)(2).

[4] The Order was effective on February 9, 2015, except for § 1.40001, which became effective on April 8, 2015, except for §§ 1.40001(c)(3)(i), 1.40001(c)(3)(iii), 1.140001(c)(4), and 17.4(c)(1)(vii), which became effective on May 18, 2015, after approval by the Office of Management and Budget. The FCC Order makes clear that under the Spectrum Act discretionary review is not required or permitted for an Eligible Facilities Request.

'substantially change the physical dimensions' of an existing tower or base station." *FCC Order*, ¶ 87. As stated in the FCC Order, Section 6409 "states without equivocation that the reviewing authority 'may not deny, and shall approve' any qualifying application. This directive leaves no room for a lengthy and discretionary approach to reviewing an application that meets the statutory criteria." *FCC Order*, ¶ 116.

In issuing the FCC Order and eliminating discretionary review for eligible facilities requests, the FCC's goal was to "adopt a test that is defined by specific, objective factors rather than the contextual and entirely subjective standard advocated by the IAC and municipalities." The FCC intentionally sought to reduce "flexibility" and "open ended context-specific approach" engendered by the discretionary review process:

> While we acknowledge that the IAC approach would provide municipalities with maximum flexibility to consider potential effects, we are concerned that it would invite lengthy review processes that conflict with Congress's intent. Indeed, some municipal commenters anticipate their review of covered requests under a subjective, case-by-case approach could take even longer than their review of collocations absent Section 6409(a). We also anticipate that disputes arising from a subjective approach would tend to require longer and more costly litigation to resolve given the more fact-intensive nature of the IAC's open-ended and context-specific approach. We find that an objective definition, by contrast, will provide an appropriate balance between municipal flexibility and the rapid deployment of covered facilities. We find further support for this approach in State statutes that have implemented Section 6409(a), all of which establish objective standards.

FCC Order, ¶ 88.

As a result, the FCC Order implementing Section 6409 establishes clear and objective criteria for determining eligibility, limits the types of information that a municipality may require when processing an application for an eligible facilities request, and imposes a "deemed granted" remedy for failure to timely process and eligible facilities request.[5] The FCC Order also establishes significant limits on the information that can be required to be provided with an eligible facilities request and limits it to only that information "reasonably related to determining whether the request meets the requirements of this section. A State or local government may not require an applicant to submit any other documentation". 47 CFR 1.40001(c)(1).

Both before and after the FCC Order was issued, the Massachusetts Attorney General's Office provided clear guidance that an eligible request cannot be subjected to a discretionary special permit process. *See* Attorney General's letters to (i) Town of Mount Washington, dated June 12, 2014, p. 3 (ii) Town of Lynnfield, dated February 10, 2015, p. 3 (the "AG Lynnfield Letter") and (iii) Town of Montague, dated February 23, 2015, p. 2 (all attached hereto). As set forth in each letter [t]he Act's requirement that a local government 'may not deny, and shall approve, any eligible facilities request' means that a request for modification to an existing facility that does not substantially change the physical dimensions of the tower or base station

[5] *See* 47 CFR §§1.40001(c)(1) - (c)(4).

must be approved. ***Such qualifying requests also cannot be subject to a discretionary special permit***.")(Emphasis added). In providing these opinions, the Attorney General's Office specifically opined that provisions in zoning ordinances that specifically required a special permit for modifications to existing facilities could not be applied to eligible facilities requests. While approving the Town of Lynnfield's Zoning Bylaw, the Attorney General stated that "Section 8.7.5.1 requires that PWSF may only be erected upon the grant of a special permit. The Town cannot apply this requirement to eligible facilities requests for modification to existing facilities that qualify for required approval under Section 6409 of the Act." *AG Lynnfield Letter*, p. 3.

Therefore, as set forth in the FCC Order and Attorney General's opinion letters, the City cannot impose a requirement that AT&T obtain a special permit, or an amendment to an existing special permit utilizing the same discretionary review process, in connection with its eligible facilities request. To the extent that the City of Cambridge's Zoning Ordinance and any prior decisions by the Board include provisions seeking to further regulate the modification of wireless communication facilities, federal law overrules those requirements. *See* Sprint Spectrum L.P. v. Town of Swansea, 574 F.Supp.2d 227, 236 (2008) (Board is obligated to consider whether its actions would violate federal law even if a different outcome would be permitted under state law). The standard of review for an application to modify an existing wireless communication facility on an existing tower or base station is governed by the Spectrum Act and the FCC Order which require eligible facilities requests to be permitted "by right."

In addition, the FCC Order establishes a 60-day period for approval from the time of AT&T's submission. 47 CFR §1.40001(c)(2). Within the context of the Spectrum Act and FCC Order, approval means all necessary approvals to permit the proposed modifications, including the issuance of a building permit, if required. The FCC found that this 60-day period is appropriate due to "the more restricted scope of review applicable to applications under section 6409(a)." *FCC Order*, ¶ 108. If the Request is not acted upon within the 60-day period, it is deemed granted. 47 CFR §1.40001(c)(4).

As set forth below, the proposed modifications constitute an eligible facilities request. Therefore, AT&T respectfully requests the Board to find that Section 4.32(g)(1) of the Ordinance does not apply to its Request.

VI. THE PROPOSED MODIFICATIONS ARE AN ELIGIBLE FACILITIES REQUEST

Under Section 6409 and the FCC Order, a "base station" means "[a] structure or equipment at a fixed location that enables Commission-licensed or authorized wireless communications between user equipment and a communications network." 47 C.F.R §1.40001(b)(1). A Base Station includes "any structure other than a tower" that supports or houses "authorized wireless communications between user equipment and a communications network." 47 C.F.R §1.40001(b)(1). Therefore, the existing building that is currently used for FCC-licensed transmissions for personal wireless services is a "base station" for purposes of Section 6409.

AT&T proposes to modify its existing Facility as described above and depicted on the Plans submitted herewith.

The proposed modifications will not require the installation of any part of the facility on the ground outside of the building.

As a result, AT&T's proposed modifications involving the removal and replacement of the existing transmission equipment constitute an "eligible facilities request" under Section 6409. The proposed eligible facilities request is not a "substantial modification" under Section 6409 and the FCC Order because it does not:

(i) Result in an increase in "the height of the structure by more than 10% or more than ten feet, whichever is greater" because the proposed replacement antennas will either be mounted and located below the screen wall or utilize the existing equipment mounting frame and therefore will not exceed 10 feet above the existing building;

(ii) Protrude from the edge of the building by more than six feet because AT&T's proposed antennas will not protrude more than six feet from building façade;

(iii) Involve the installation of more than the standard number of new equipment cabinets for the technology involved, but not to exceed four cabinets, because no new radio communications equipment cabinets will be installed;

(iv) Require any excavation or deployment outside the current site of the tower or base station because all antennas, equipment cabinets and related equipment will be installed entirely on and within the existing building; or

(v) Otherwise defeat the existing concealment elements of the tower or base station because the proposed replacement antennas will be located behind the existing screen wall or utilize the existing mounting frame and will continue to integrate the Facility into the existing architecture of the building. Therefore, AT&T's proposed Facility will remain aesthetically consistent with the exterior finish of the building as well as maintain the concealment elements of the original design.

See FCC Order, §1.40001(b)(7)(i)-(v).

VII. COMPLIANCE WITH THE CAMBRIDGE ZONING ORDINANCE

In the alternative, AT&T respectfully requests the Board to grant a special permit for the proposed modifications to the existing Facility.[6]

A. AT&T complies with the Wireless Communications provisions set forth in Section 4.32(g)(1), and Section 4.40, Footnote 49 of the Ordinance.

AT&T's proposed modifications comply with Section 4.32(g)(1), and Section 4.40, Footnote 49 of the Ordinance as follows:[7]

Section 4.32(g)(1): Section 4.32(g)(1) of the Ordinance allows for the use of a "*[t]elephone exchange (including switching, relay, and transmission facilities serving mobile communications systems) and any towers or antennas accessory thereto.*" Under the Table of Use Regulations beginning at Section 4.30, AT&T's proposed use of the Facility as a transmission facility serving a mobile communications system is permitted by special permit in the PUD-2 & Residence C-3A zoning district *(see* the table at Section 4.32(g)(1)).

Section 4.40, Footnote 49: Section 4.32(g)(1) includes a reference to Section 4.40, Footnote 49 which sets out the standards for granting the special permit. AT&T's proposed Facility complies with Footnote 49's standards as noted below:

1. **The Board of Zoning Appeal shall consider "[t]he scope of or limitations imposed by any license secured from any state or federal agency having jurisdiction over such matters."**

AT&T's Response: AT&T's FCC license is included with this application and the license information included shows that AT&T is authorized to provide wireless service in the area served by the Facility (*see* Exhibit 2).

2. **The Board of Zoning Appeal shall consider "[t]he 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."**

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[6] AT&T's request is made, if and to the extent necessary, with all rights reserved. As discussed above, the FCC Order establishes a 60-day period for receipt of all necessary approvals from the time of AT&T's submission, including a building permit, if required. 47 CFR §1.40001(c)(2). If the Request is not acted upon within the 60-day period, it is deemed granted. 47 CFR §1.40001(c)(4). Therefore, AT&T expressly reserves its rights under 47 CFR §1.40001(c)(2) and (4).

[7] To the extent that Section 4.32(g)(1), and Section 4.40, Footnote 49 of the Ordinance purport to require the submission of information that is beyond the scope permitted by the FCC Order or Spectrum Act, AT&T expressly reserves, and does not waive, its right to assert that such information is not required under the Spectrum Act and the submission of such information shall not constitute a waiver of AT&T's rights pursuant thereto.

AT&T's Response: The design of the overall Facility, including the choice and placement of replacement antennas and associated equipment, behind the existing screen wall or utilizing the existing mounting frame, minimizes the visual impact of the proposed Facility. This is because the proposed modifications will be minimally visible and consistent with the elements of the existing Facility. The minimal visual impact of the Facility is shown in the photographs of the existing Facility and the photo simulations that superimpose the proposed modifications to the existing Facility (*see,* Exhibit 5).

3. **The Board of Zoning Appeal shall consider "[w]here 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 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.**

   In granting a special permit the Board of Zoning Appeal shall set forth in its decision under which circumstances or procedures, if any, the permittee shall be allowed to replace and upgrade its equipment without the necessity of seeking a new special permit."

AT&T's Response: As demonstrated by the Radio Frequency Report and the associated coverage maps, AT&T has demonstrated an immediate and compelling need for the proposed modifications to its existing Facility located at the Property in order to provide substantially improved indoor coverage to residents, businesses, students and faculty, and the general public in that area. AT&T also seeks to substantially improve its ability to satisfy the ever-increasing need of its customers for data accessibility, navigation and use. This is especially critical in and around the area of Sherman Street which also serves as home for numerous businesses. AT&T proposes to satisfy its RF coverage needs in the area by adding to the existing Facility the antennas and equipment necessary to provide the latest LTE wireless communications service technology. By modifying its existing Facility, AT&T obviates the need to construct an entirely new facility within this area of Cambridge in order to meet the wireless network coverage needs of the residents, businesses, and general public in the area.

As provided in Footnote 49, AT&T requests that once permission is received from the City to site the Facility at the Property, the Board permit AT&T to replace and upgrade the equipment at this Facility in the future without further zoning proceedings or a new special permit, provided that such equipment shall meet the eligible facilities request criteria set forth in 47 CFR § 1.40001.

B. AT&T complies with the Special Permit Criteria set forth in Section 10.43 of the Ordinance.

Section 10.43 of the Ordinance specifies the following criteria for issuance of a special permit: "Special permits will normally be granted where specific provisions of this Ordinance are met, except when particulars of the location or use, not generally true of the district or of the uses permitted in it, would cause granting of such permit to be to the detriment of the public interest because:

(a) The requirements of this Ordinance cannot or will not be met, or

AT&T's Response: As provided above, AT&T's proposed modifications comply with the requirements set forth in Section 4.32(g), Footnote 49 of the Ordinance, the Spectrum Act and the eligible facilities request criteria set forth in 47 CFR § 1.40001. Granting the special permit would not be a detriment to the public interest and is consistent with the Board's obligations pursuant to the Spectrum Act and FCC Order.

(b) Traffic generated or patterns of access or egress would cause congestion, hazard, or substantial change in established neighborhood character for the following reasons, or

AT&T's Response: The proposed modifications to AT&T's existing Facility will not result in any change to the existing traffic on or near the Property. The Facility will continue to be unmanned and only require infrequent visits by a technician (typically two times per month for routine diagnostics and/or maintenance, except in cases of emergency), there will be no material increase in traffic or disruption to patterns of access or egress that will cause congestion, hazards or a substantial change in the established neighborhood character. AT&T's maintenance personnel will make use of the existing access roads and parking at the building. Granting the special permit would not be a detriment to the public interest and is consistent with the Board's obligations pursuant to the Spectrum Act and FCC Order.

(c) The continued operation of or the development of adjacent uses as permitted in the Zoning Ordinance would be adversely affected by the nature of the proposed use, or

AT&T's Response: As described above and illustrated on the attached photographs and photo simulations (*see* Exhibit 5) the proposed modifications to the existing Facility will result in a *de minimis* change in the appearance of the building. As a result, the Facility as a whole either will continue to be hidden from view or will visually blend with existing characteristics of the building and the surrounding neighborhood. Because the proposed installation will not generate any traffic, smoke, dust, heat or glare, discharge noxious substances, nor pollute waterways or groundwater, it will not adversely affect residential uses on neighboring streets. Conversely, the surrounding properties and general public will benefit from the potential to enjoy improved wireless communications services. Granting the special permit would not be a detriment to the public interest and is consistent with the Board's obligations pursuant to the Spectrum Act and FCC Order.

(d) Nuisance or hazard would 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, or

AT&T's Response: Because the proposed modifications to the existing Facility will not cause the Facility to generate any traffic, smoke, dust, heat or glare, discharge noxious substances, nor pollute waterways or groundwater, no nuisance or hazard will be created to the detriment of the health, safety, or welfare of the occupants of the building or the residents of the City of Cambridge. To the contrary, the proposed Facility 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 that 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 Facility, as modified, will continue to comply with all federal, state and local safety requirements including the standards established by the FCC and Federal Aviation Administration (FAA). (*See* Exhibit 8 Maximum Permissible Exposure Study, Theoretical Report). Granting the special permit would not be a detriment to the public interest and is consistent with the Board's obligations pursuant to the Spectrum Act and FCC Order.

(e) For other reasons, the proposed installation would impair the integrity of the district or adjoining district or otherwise derogate from the intent or purpose of this Ordinance, or

AT&T's Response: The purpose of the Ordinance is multifaceted, the relevant aspects of which relating to wireless telecommunications facilities include the lessening of congestion in the streets, conserving health, securing safety from fire, flood, panic and other danger, conserving the value of land and buildings and natural resources, preventing blight and pollution, encouraging the most rational use of land throughout the city, including encouraging appropriate economic development, and protecting residential neighborhoods from incompatible activities.

As noted above, the proposed modifications to the existing Facility directly accord with the purposes of the Ordinance because the modifications will not result in any traffic, smoke, dust, heat or glare, discharge noxious substances, nor pollute waterways or groundwater. As the Facility will improve the ability of residents, businesses, travelers and drivers in the area to access state-of-the-art wireless technology, the City's ability to provide emergency services will be improved, as will the economic development of the City as more people will be able to conduct commerce by virtue of a mobile platform. Because the proposed modifications to the existing Facility will be installed on an existing building that includes the Facility, and the proposed modifications are consistent with the existing concealment elements, the proposed modifications to the existing Facility are in consistent with the building's character and will not affect the value of the building or the natural resources of the City. Because the proposed modifications to the existing Facility are designed to be consistent with the existing concealment elements of the Facility and characteristics of the Property, the visual impact on the underlying and adjacent zoning districts will be *de minimis*. As a result, the proposed modifications to the existing Facility are consistent with the Ordinance's purpose to allow for less intrusive wireless telecommunications facilities in all districts (other than Open Space) including the applicable overlay districts, and the underlying PUD-2 & Residence C-3A district. Granting the special permit would not be a detriment to the public interest and is consistent with the Board's obligations pursuant to the Spectrum Act and FCC Order.

(f) The new use or building construction is inconsistent with the Urban Design Objectives set forth in Section 19.30

AT&T's Response: As stated in the Section 19.30, the Citywide Urban Design Objectives ("Objectives") "are intended to provide guidance to property owners and the general public as to the city's policies with regard to the form and character desirable for new development in the city. It is understood that application of these principles can vary with the context of specific building proposals in ways that, nevertheless, fully respect the policies' intent. It is intended that proponents of projects, and city staff, the Planning Board and the general public, where public review or approval is required, should be open to creative variations from the detailed provisions presented in this Section as long as the core values expressed are being served. ***A project need not meet all the objectives of this Section 19.30 where this Section serves as the basis for issuance of a special permit. Rather the permit granting authority shall find that on balance the objectives of the city are being served.*** Nor shall a project subject to special permit review be required to conform to the Required Building and Site Plan Requirements set forth in Section 11.50." [emphasis added]. For the reasons stated in AT&T's response to this Section 10.43(f) of the Zoning Ordinance and in its application generally, "on balance, the objectives of the city are being served" by the installation of the proposed modifications at the Property so that granting the special permit would not be a detriment to the public interest and is consistent with the Board's obligations pursuant to the Spectrum Act and FCC Order.

The following are the Objectives' headings as appearing in the Ordinance:

19.31: New projects should be responsive to the existing or anticipated pattern of development.

AT&T's Response: The existing Facility is located on and within the existing building, some of the equipment of which is hidden from view behind the screen wall and within the building, or otherwise obstructed from view, and the remaining equipment utilizes the existing antenna mounting frame and blends with the structures and colors of the building to the extent feasible. The proposed modifications to the existing Facility are consistent with the previously approved design and concealment elements of the existing Facility. Therefore, the proposed modifications are responsive to the existing pattern of development in the Property's applicable zoning and overlay districts.

19.32: Development should be pedestrian and bicycle-friendly, with a positive relationship to its surroundings.

AT&T's Response: The existing Facility is located on and within the existing building. The Facility is only accessed by authorized AT&T personnel for routine maintenance one to two times per month and is not accessed by the general public. The proposed modifications to the existing Facility will not result in any increase in routine visits nor otherwise result in a change in traffic patterns in the vicinity of the Property that would affect pedestrian flow or cyclists' access to the building or surrounding areas within the Property's applicable zoning districts.

19.33 The building and site design should mitigate adverse environmental impacts of a development upon its neighbors. Indicators include[8]

(1) Mechanical equipment that is carefully designed, well organized or visually screened from its surroundings and is acoustically buffered from neighbors. Consideration is given to the size, complexity and appearance of the equipment, its proximity to residential areas, and its impact on the existing streetscape and skyline. The extent to which screening can bring order, lessen negative visual impacts, and enhance the overall appearance of the equipment should be taken into account. More specifically:

(a) Reasonable attempts have been made to avoid exposing rooftop mechanical equipment to public view from city streets. Among the techniques that might be considered are the inclusion of screens or a parapet around the roof of the building to shield low ducts and other equipment on the roof from view.

(b) Treatment of the mechanical equipment (including design and massing of screening devices as well as exposed mechanical elements) that relates well to the overall design, massing, scale and character of the building.

(c) Placement of mechanical equipment at locations on the site other than on the rooftop (such as in the basement), which reduces the bulk of elements located on the roof; however, at-grade locations external to the building should not be viewed as desirable alternatives.

(d) Tall elements, such as chimneys and air exhaust stacks, which are typically carried above screening devices for functioning reasons, are carefully designed as features of the building, thus creating interest on the skyline.

(e) All aspects of the mechanical equipment have been designed with attention to their visual impact on adjacent areas, particularly with regard to residential neighborhoods and views and vistas.

AT&T's Response: As shown in the photo simulations (*see* Exhibit 5), the existing Facility, as proposed to be modified herein, will continue to be visually consistent with the color and texture of the building, the concealment elements of the design of the Facility, and with other existing wireless communications facilities from competing carriers located on the building. As a result, AT&T's Facility is in keeping with the building's existing features without adversely affecting the building's overall design, massing, scale or character.

(2) Trash that is handled to avoid impacts (noise, odor, and visual quality) on neighbors, e.g. the use of trash compactors or containment of all trash storage and handling within a building is encouraged.

[8] Inasmuch as Section 19.33 is most relevant to the Facility, it is stated here in full.

AT&T's Response: The Facility does not generate trash, therefore this design objective is inapplicable.

(3) Loading docks that are located and designed to minimize impacts (visual and operational) on neighbors.

AT&T's Response: The Facility does not utilize any loading dock, therefore this design objective is inapplicable.

(4) Stormwater Best Management Practices and other measures to minimize runoff and improve water quality are implemented.

AT&T's Response: The existing Facility, and the proposed modifications, are located entirely on and within the existing Building on the Property and have no effect on stormwater runoff, therefore this design objective is inapplicable.

(5) Landscaped areas and required Green Area Open Space, in addition to serving as visual amenities, are employed to reduce the rate and volume of stormwater runoff compared to pre-development conditions.

AT&T's Response: The existing Facility and proposed modifications have no effect any landscaped or Green Area Open Space, therefore this design objective is inapplicable.

(6) The structure is designed and sited to minimize shadow impacts on neighboring lots, especially shadows that would have a significant impact on the use and enjoyment of adjacent open space and shadows that might impact the operation of a Registered Solar Energy System as defined in Section 22.60 of this Zoning Ordinance.

AT&T's Response: The existing Facility and proposed modifications are designed so as not to cause shadows on neighboring lots.

(7) Changes in grade across the lot are designed in ways that minimize the need for structural retaining walls close to property lines.

AT&T's Response: The existing Facility and proposed modifications are located entirely on and within the existing building and have no impact on the grade of the Property, therefore this design objective is inapplicable.

(8) Building scale and wall treatment, including the provision of windows, are sensitive to existing residential uses on adjacent lots.

AT&T's Response: The proposed modifications to the existing Facility will not change the building's scale because antennas and equipment will be mounted behind the existing screen wall or on an existing antenna mounting frame already located on the building (*see* Exhibit 3). The existing Facility and proposed modifications are consistent with characteristics of the existing building design, maintain the existing concealment elements of the Facility and therefore minimize any visual impact from the Facility.

(9) Outdoor lighting is designed to provide minimum lighting and necessary to ensure adequate safety, night vision, and comfort, while minimizing light pollution.

AT&T's Response: The existing Facility does not use any outdoor lighting. The proposed modifications to the Facility do not include any additional lighting of the Facility or building. As a result, this design objective is inapplicable.

(10) The creation of a Tree Protection Plan that identifies important trees on the site, encourages their protection, or provides for adequate replacement of trees lost to development on the site.

AT&T's Response: The existing Facility and proposed modifications are located entirely on and within the existing building and have no effect on any trees on the Property, therefore this design objective is inapplicable.

19.34: Projects should not overburden the City infrastructure services, including neighborhood roads, city water supply system, and sewer system.

AT&T's Response: The existing Facility, including the proposed modifications, is a passive use and will not generate trash, odor, excess noise, or utilize water or wastewater services. As such, it will not burden the City's infrastructure services.

19.35: New construction should reinforce and enhance the complex urban aspects of Cambridge as it has developed historically.

AT&T's Response: The proposed modification of the existing Facility located on and within the existing building, will obviate the need for AT&T to construct an additional Facility to address its wireless network coverage need in this area of Cambridge. The existing Facility and the proposed modifications blend the equipment with the building texture and color, and are consistent with the concealment elements of the Facility's design. As a result, the Facility will reinforce the existing Cambridge landscape as it currently is manifested at the Property.

.

19.36: Expansion of the inventory of housing in the city is encouraged.

AT&T's Response: The Facility and proposed modifications provide wireless services and will not adversely impact the City's housing inventory.

19.37. Enhancement and expansion of open space amenities in the city should be incorporated into new development in the city.

AT&T's Response: The Facility and proposed modifications are located on and within the existing building. The Facility and proposed modifications will not adversely impact or otherwise reduce open space amenities within the City.

VIII. SUMMARY

For the foregoing reasons AT&T respectfully requests that the Board determine that pursuant to the Spectrum Act and the FCC Order, the Request constitutes an eligible facilities request and therefore AT&T's Request must be approved administratively, including the issuance of a building permit, without the need for further relief from the Board. In the alternative, without waiving its rights, AT&T requests the Board grant the foregoing zoning relief in the form of a Special Permit and such other relief as the Board deems necessary to allow the modification and operation of AT&T's proposed Facility.

Best Regards,

Ryan Lynch
Authorized Agent to New Cingular Wireless PCS, LLC ("AT&T")

cc: Jonathan Elder, Esq.

BZA APPLICATION FORM

CHECK LIST

PROPERTY LOCATION: 102 Sherman Street **DATE:** 6/1/2018

PETITIONER OR REPRESENTATIVE: New Cingular Wireless PCS d/b/a/ AT&T Mobility - c/o Ryan Lynch, Smartlink, LLC

ADDRESS & PHONE: 85 Rangeway Road, Building 3, Suite 102, Billerica, MA 01862 / 781-392-4040

BLOCK: 203B **LOT:** 66

PLEASE CHECK THAT YOU HAVE INCLUDED THE FOLLOWING WITH YOUR APPLICATION. APPLICATIONS WILL NOT BE ACCEPTED FOR PROCESSING & SCHEDULING UNLESS ALL REQUIRED DOCUMENTS ARE PROVIDED.

PLEASE INCLUDE THIS CHECKLIST WITH YOUR APPLICATION.
ALL DOCUMENTS ARE TO BE TYPED OR WRITTEN LEGIBLY.

DOCUMENTS	REQUIRED	ENCLOSED
Application Form **3 Forms with Original Signatures**		X
Supporting Statements – Scanned & 1 set to Zoning		X
Application Fee (You will receive invoice online)		
Assessor's GIS "Block Map" (Available on line or At Engineering Dept. - 147 Hampshire Street)		X
Dimensional Form - Refer to Cambridge Zoning Ordinance - Scanned & 1 set to Zoning (Subject to further review by Zoning Specialist)		
Ownership Certificate, Notarized - Scanned & 1 set to Zoning		X
Floor Plans - Scanned & 1 set to Zoning		
Elevations - Scanned & 1 set to Zoning		X
Certified Plot Plan - Scanned & 1 set to Zoning (By Registered Land Surveyor)		
Photographs of Property – Scanned & 1 set to Zoning		X
Parking Plan (if relevant to your application) Scanned & 1 set to Zoning		
FOR SUBDIVISION ALSO INCLUDE: Scanned & 1 set to Zoning		
Proposed Deeds		
Evidence of Separate Utilities **		
Proposed Subdivision Plan		

Petitioners are advised to refer to Attachment A (Procedures for applying to the Board of Zoning Appeal) & consult zoning staff for review.
It is advisable for the Petitioner to discuss the petition with the abutters as listed in the Zoning BZA Case file.

* For Special Permits under Art. 4.32.G.1 (Communication Towers and Antennas), include a photo simulation.
** Can be submitted after subdivision has been approved.

BZA APPLICATION FORM

GENERAL INFORMATION

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

Special Permit: X **Variance:** _____ **Appeal:** _____

PETITIONER: New Cingular Wireless PCS LLC d/b/a AT&T Mobility c/o Ryan Lynch

PETITIONER'S ADDRESS: 85 Rangeway Road, Building 3, Suite 102, Billerica, MA 01862

LOCATION OF PROPERTY: 102 Sherman Street

TYPE OF OCCUPANCY: 8-Unit-Apt **ZONING DISTRICT:** Business C Zone

REASON FOR PETITION:

_____ Additions

_____ Change in Use/Occupancy

_____ Conversion to Addi'l Dwelling Unit's

_____ Dormer

X Other: Telecommunications Upgrade

_____ New Structure

_____ Parking

_____ Sign

_____ Subdivision

DESCRIPTION OF PETITIONER'S PROPOSAL:

This application is an Eligible Facilities Request pursuant to Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012, 47 U.S.C. 1455; or in the alternative, for a special permit under the zoning ordinance as cited above, if and to the extent necessary, all rights reserved. AT&T will be replacing 3 existing antennas. AT&T will also be adding and upgrading other telecommunications equipment as part of nationwide network upgrades.

SECTIONS OF ZONING ORDINANCE CITED:

Article 4.000 Section 4.32.G.1 (Telecommunications Facility)

Article 4.000 Section 4.40 (Footnote 49) (Telecommunications Facility).

Article 10.000 Section 10.40 (Special Permit)

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)

Ryan Lynch, Authorized Agent for AT&T
(Print Name)

Address: 85 Rangeway Road, Building 3, Suite 102
Billerica, MA 01862

Tel. No.: 781-392-4040

E-Mail Address: Ryan.Lynch@smartlinkllc.com

Date: _____

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 WSQ Limited Partnership
(OWNER)

Address: 6 Faneuil Hall Marketplace, Boston, MA 02109

State that I/We own the property located at 102 Sherman St., Cambridge, MA 02140 which is the subject of this zoning application.

The record title of this property is in the name of WSQ Limited Partnership

*Pursuant to a deed of duly recorded in the date 9/28/2000, Middlesex South County Registry of Deeds at Book 31876, Page 596; or Middlesex Registry District of Land Court, Certificate No. _____ Book _____ Page _____.

WSQ Limited Partnership
By:WSQ Investment LLC, its GP
By: Winn LLC Manager, Inc., its Manager
By: Gilbert J. Winn, President

*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 Suffolk

The above-name Gilbert J. Winn personally appeared before me, this 10 of April, 2018, and made oath that the above statement is true.

Kelly Noe Notary

My commission expires 12.14.18 (Notary Seal).

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

KELLY NOE
Notary Public
COMMONWEALTH OF MASSACHUSETTS
My Commission Expires On
December 14, 2018

BZA APPLICATION FORM

DIMENSIONAL INFORMATION

APPLICANT: Smartlink, LLC on behalf of AT&T **PRESENT USE/OCCUPANCY:** Residential/Telecom

LOCATION: 102 Sherman Street, Cambridge, MA **ZONE:** Business C Zone

PHONE: 781-392-4040 **REQUESTED USE/OCCUPANCY:** No change

		EXISTING CONDITIONS	***REQUESTED CONDITIONS***	***ORDINANCE REQUIREMENTS***[1]	
TOTAL GROSS FLOOR AREA:		0	0	0	(max.)
LOT AREA:		0		0	(min.)
RATIO OF GROSS FLOOR AREA TO LOT AREA:[2]		0	0	0	(max.)
LOT AREA FOR EACH DWELLING UNIT:		0	0	0	(min.)
SIZE OF LOT:	WIDTH	0		0	(min.)
	DEPTH				
Setbacks in Feet:	FRONT	0	0	0	(min.)
	REAR	0	0	0	(min.)
	LEFT SIDE	0	0	0	(min.)
	RIGHT SIDE	0	0	0	(min.)
SIZE OF BLDG.:	HEIGHT	0	0	0	(max.)
	LENGTH				
	WIDTH				
RATIO OF USABLE OPEN SPACE TO LOT AREA:[3])		0	0	0	(min.)
NO. OF DWELLING UNITS:		0	0	0	(max.)
NO. OF PARKING SPACES:		0	0	0	(min./max)
NO. OF LOADING AREAS:		0	0	0	(min.)
DISTANCE TO NEAREST BLDG. ON SAME LOT:		0	0	0	(min.)

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.

_____

_____

_____

_____

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'.*

BZA APPLICATION FORM

SUPPORTING STATEMENT FOR A SPECIAL PERMIT

Please describe in complete detail how you meet each of the following criteria referring to the property and proposed changes or uses which are requested in your application. Attach sheets with additional information for special permits which have additional criteria, e.g.; fast food permits, comprehensive permits, etc., which must be met.

Granting the Special Permit requested for 102 Sherman Street, Cambridge **(*location*) would not be a detriment to the public interest because:**

A) Requirements of the Ordinance can or will be met for the following reasons:

See attached support statements

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

See attached support statements

C) 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:

See attached support statements

D) 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:

See attached support statements.

E) For other reasons, the proposed use would 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:

See attached support statements.

ULS License

700 MHz Lower Band (Blocks A, B & E) License - WQIZ616 - New Cingular Wireless PCS, LLC

Call Sign	WQIZ616	Radio Service	WY - 700 MHz Lower Band (Blocks A, B & E)
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	BEA003 - Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH-RI-VT	Channel Block	E
Submarket	0	Associated Frequencies (MHz)	000722.00000000-000728.00000000

Dates

Grant	06/26/2008	Expiration	03/07/2021
Effective	06/14/2017	Cancellation	

Buildout Deadlines

1st	03/07/2017	2nd	03/07/2021

Notification Dates

1st	03/16/2017	2nd	

Licensee

FRN	0003291192	Type	Limited Liability Company

Licensee

New Cingular Wireless PCS, LLC
208 S Akard St., RM 1016
Dallas, TX 75202
ATTN Leslie Wilson

P:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com

Contact

AT&T Mobility LLC

1120 20th Street, NW - Suite 1000
Washington, DC 20036
ATTN Michael P. Goggin

P:(202)457-2055
F:(202)457-3073
E:michael.p.goggin@att.com

Ownership and Qualifications

Radio Service Type	Fixed, Mobile		
Regulatory Status	Common Carrier,	Interconnected	No

Non-Common
Carrier

Alien Ownership
The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications
The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: LESLIE WILSON
NEW CINGULAR WIRELESS PCS, LLC
208 S AKARD ST., RM 1016
DALLAS, TX 75202

Call Sign	File Number
WQIZ616	
Radio Service	
WY - 700 MHz Lower Band (Blocks A, B & E)	

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
06-26-2008	06-14-2017	03-07-2021	

Market Number	Channel Block	Sub-Market Designator
BEA003	E	0

Market Name
Boston-Worcester-Lawrence-Lowe

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
03-07-2017	03-07-2021		

Waivers/Conditions:

If the facilities authorized herein are used to provide broadcast operations, whether exclusively or in combination with other services, the licensee must seek renewal of the license either within eight years from the commencement of the broadcast service or within the term of the license had the broadcast service not been provided, whichever period is shorter in length. See 47 CFR §27.13(b).

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

ULS License

700 MHz Lower Band (Blocks A, B & E) License - WQJU427 - AT&T Mobility Spectrum LLC

Call Sign	WQJU427	Radio Service	WY - 700 MHz Lower Band (Blocks A, B & E)
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	CMA006 - Boston-Lowell-Brockton-Lawrence-Haverhill, MA-NH	Channel Block	B
Submarket	0	Associated Frequencies (MHz)	000704.00000000-000710.00000000 000734.00000000-000740.00000000

Dates

Grant	01/06/2009	Expiration	06/13/2019
Effective	06/08/2017	Cancellation	

Buildout Deadlines

1st	12/13/2016	2nd	06/13/2019

Notification Dates

1st	10/30/2012	2nd	10/30/2012

Licensee

FRN	0014980726	Type	Limited Liability Company

Licensee

AT&T Mobility Spectrum LLC
208 S Akard St., RM 1016
Dallas, TX 75202
ATTN Leslie Wilson

P:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com

Contact

AT&T Mobility LLC
Michael P Goggin
1120 20th Street, NW - Suite 1000
Washington, DC 20036
ATTN Michael P. Goggin

P:(202)457-2055
F:(202)457-3073
E:michael.p.goggin@att.com

Ownership and Qualifications

Radio Service Type Mobile

Regulatory Status	Common Carrier	Interconnected	Yes

Alien Ownership
The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications
The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity Gender

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: AT&T MOBILITY SPECTRUM LLC

ATTN: LESLIE WILSON
AT&T MOBILITY SPECTRUM LLC
208 S AKARD ST., RM 1016
DALLAS, TX 75202

Call Sign	File Number
WQJU427	
Radio Service	
WY - 700 MHz Lower Band (Blocks A, B & E)	

FCC Registration Number (FRN): 0014980726

Grant Date	Effective Date	Expiration Date	Print Date
01-06-2009	06-08-2017	06-13-2019	

Market Number	Channel Block	Sub-Market Designator
CMA006	B	0

Market Name
Boston-Lowell-Brockton-Lawrenc

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
12-13-2016	06-13-2019		

Waivers/Conditions:

If the facilities authorized herein are used to provide broadcast operations, whether exclusively or in combination with other services, the licensee must seek renewal of the license either within eight years from the commencement of the broadcast service or within the term of the license had the broadcast service not been provided, whichever period is shorter in length. See 47 CFR §27.13(b).

This license is subject to compliance with the conditions set forth in the Commission's Order of Modification, WT Docket No. 12-69, DA 14-43, released January 16, 2014.

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select “License Search”. Follow the instructions on how to search for license information.

ULS License

700 MHz Lower Band (Blocks C, D) License - WPWU950 - AT&T Mobility Spectrum LLC

Call Sign	WPWU950	Radio Service	WZ - 700 MHz Lower Band (Blocks C, D)
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	CMA006 - Boston-Lowell-Brockton-Lawrence-Haverhill, MA-NH	Channel Block	C
Submarket	0	Associated Frequencies (MHz)	000710.00000000-000716.00000000 000740.00000000-000746.00000000

Dates

Grant	01/24/2003	Expiration	06/13/2019
Effective	06/08/2017	Cancellation	

Buildout Deadlines

1st	06/13/2019	2nd	

Notification Dates

1st		2nd	

Licensee

FRN	0014980726	Type	Limited Liability Company

Licensee

AT&T Mobility Spectrum LLC
208 S Akard St., RM 1016
Dallas, TX 75202
ATTN Leslie Wilson

P:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com

Contact

AT&T Mobility LLC
Michael P Goggin
1120 20th Street, NW - Suite 1000
Washington, DC 20036
ATTN Michael P. Goggin

P:(202)457-2055
F:(202)457-3073
E:michael.p.goggin@att.com

Ownership and Qualifications

Radio Service Type Fixed, Mobile, Radio Location

Regulatory Status	Common Carrier, Non-Common Carrier, Private Comm	Interconnected	Yes

Alien Ownership
The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications
The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: AT&T MOBILITY SPECTRUM LLC

ATTN: LESLIE WILSON
AT&T MOBILITY SPECTRUM LLC
208 S AKARD ST., RM 1016
DALLAS, TX 75202

Call Sign	File Number
WPWU950	
Radio Service	
WZ - 700 MHz Lower Band (Blocks C, D)	

FCC Registration Number (FRN): 0014980726

Grant Date	Effective Date	Expiration Date	Print Date
01-24-2003	06-08-2017	06-13-2019	

Market Number	Channel Block	Sub-Market Designator
CMA006	C	0

Market Name
Boston-Lowell-Brockton-Lawrenc

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
06-13-2019			

Waivers/Conditions:

If the facilities authorized herein are used to provide broadcast operations, whether exclusively or in combination with other services, the licensee must seek renewal of the license either within eight years from the commencement of the broadcast service or within the term of the license had the broadcast service not been provided, whichever period is shorter in length. See 47 CFR §27.13(b).

Operation of the facilities authorized herein, are subject to the condition that harmful interference may not be caused to, but must be accepted from UHF TV transmitters in Canada and Mexico as identified in existing and any future agreements with those countries.

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: WPWU950 **File Number:** **Print Date:**

This license is subject to compliance with the conditions set forth in the Commission's Order of Modification, WT Docket No. 12-69, DA 14-43, released January 16, 2014.

ULS License

Cellular License - KNKA226 - AT&T Mobility Spectrum LLC

Call Sign	KNKA226	Radio Service	CL - Cellular
Status	Active	Auth Type	Regular

Market

Market	CMA006 - Boston-Lowell-Brockton-Lawrence-Haverhill, MA-NH	Channel Block	A
Submarket	0	Phase	2

Dates

Grant	09/09/2014	Expiration	10/01/2024
Effective	06/08/2017	Cancellation	

Five Year Buildout Date

06/28/1999

Control Points

2	100 LOWDER BROOK DR, NORFOLK, WESTWOOD, MA P: (617)462-7094

Licensee

FRN	0014980726	Type	Limited Liability Company

Licensee

AT&T Mobility Spectrum LLC
208 S Akard St., RM 1016
Dallas, TX 75202
ATTN Leslie Wilson

P:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com

Contact

AT&T Mobility LLC
Michael P Goggin
1120 20th Street, NW - Suite 1000
Washington, DC 20036
ATTN Michael P. Goggin

P:(202)457-2055
F:(202)457-3073
E:michael.p.goggin@att.com

Ownership and Qualifications

Radio Service Type	Mobile		
Regulatory Status	Common Carrier	Interconnected	Yes

Alien Ownership
The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications
The Applicant answered "No" to each of the Basic Qualification questions.

Demographics

Race	
Ethnicity	Gender

Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: AT&T MOBILITY SPECTRUM LLC

ATTN: LESLIE WILSON
AT&T MOBILITY SPECTRUM LLC
208 S AKARD ST., RM 1016
DALLAS, TX 75202

Call Sign	File Number
KNKA226	
Radio Service CL - Cellular	
Market Numer CMA006	**Channel Block** A
Sub-Market Designator 0	

FCC Registration Number (FRN): 0014980726

Market Name
Boston-Lowell-Brockton-Lawrenc

Grant Date	Effective Date	Expiration Date	Five Yr Build-Out Date	Print Date
09-09-2014	06-08-2017	10-01-2024		

Site Information:

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
15	42-37-42.3 N	070-39-16.8 W	45.7	58.8	

Address: 40 DORY ROAD
City: GLOUCESTER **County:** ESSEX **State:** MA **Construction Deadline:**

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	93.100	97.500	101.800	101.800	100.800	88.700	85.700	101.800
Transmitting ERP (watts)	158.853	205.617	68.628	9.427	0.642	0.431	2.268	29.488
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	93.100	97.500	101.800	101.800	100.800	88.700	85.700	101.800
Transmitting ERP (watts)	0.459	5.462	56.429	198.529	168.403	38.276	3.953	0.786
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	93.100	97.500	101.800	101.800	100.800	88.700	85.700	101.800
Transmitting ERP (watts)	12.078	0.668	0.599	1.024	10.050	68.014	123.413	62.132

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

FCC 601-C
August 2007

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA226 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
20	43-03-11.8 N	071-16-02.1 W	179.2	59.4	

Address: 80 Diamond Hill Road
City: Candia **County:** ROCKINGHAM **State:** NH C**onstruction Deadline:**

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	73.200	111.000	159.400	159.000	98.400	148.300	88.600	75.600
Transmitting ERP (watts)	52.325	70.778	16.988	1.425	0.187	0.144	0.491	7.084
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	73.200	111.000	159.400	159.000	98.400	148.300	88.600	75.600
Transmitting ERP (watts)	0.343	3.851	33.085	100.313	84.855	19.494	2.061	0.299
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	73.200	111.000	159.400	159.000	98.400	148.300	88.600	75.600
Transmitting ERP (watts)	6.845	0.890	0.107	1.038	6.652	7.633	3.304	6.905

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
24	42-54-55.1 N	071-21-37.4 W	100.9	46.3	1011624

Address: 15 INDEPENDENCE DRIVE
City: LONDONDERRY **County:** ROCKINGHAM **State:** NH C**onstruction Deadline:**

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	35.900	30.000	44.800	52.100	54.500	72.000	68.000	66.500
Transmitting ERP (watts)	161.221	224.756	47.602	3.692	0.510	0.437	1.233	19.454
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	35.900	30.000	44.800	52.100	54.500	72.000	68.000	66.500
Transmitting ERP (watts)	0.510	3.172	43.604	213.248	156.639	22.374	1.350	0.496
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	35.900	30.000	44.800	52.100	54.500	72.000	68.000	66.500
Transmitting ERP (watts)	11.168	0.691	0.533	0.586	7.854	87.092	266.329	94.294

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA226 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
25	42-00-32.6 N	071-19-15.2 W	90.5	51.8	

Address: 75 WASHINGTON SST
City: PLAINVILLE **County:** NORFOLK **State:** MA **Construction Deadline:** 03-29-2013

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	64.500	61.200	95.600	96.100	94.300	64.100	46.000	48.800
Transmitting ERP (watts)	84.752	97.052	31.772	5.158	0.550	0.224	2.803	20.645
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	64.500	61.200	95.600	96.100	94.300	64.100	46.000	48.800
Transmitting ERP (watts)	0.380	5.181	37.013	100.829	79.042	20.699	2.118	0.824
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	64.500	61.200	95.600	96.100	94.300	64.100	46.000	48.800
Transmitting ERP (watts)	24.577	1.736	0.715	2.292	18.444	139.378	281.180	142.336

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
26	41-46-57.1 N	070-44-06.5 W	12.5	58.8	

Address: KENDRICK ROAD
City: WAREHAM **County:** PLYMOUTH **State:** MA **Construction Deadline:** 03-29-2013

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	46.500	56.700	59.800	50.600	39.100	32.800
Transmitting ERP (watts)	186.898	242.551	75.777	10.617	0.738	0.508	2.730	35.860
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	46.500	56.700	59.800	50.600	39.100	32.800
Transmitting ERP (watts)	0.361	5.818	47.861	150.309	121.062	28.493	2.933	0.991
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	46.500	56.700	59.800	50.600	39.100	32.800
Transmitting ERP (watts)	18.390	1.111	0.538	1.628	13.482	98.897	203.625	103.938

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA226 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
27	41-53-35.2 N	070-56-35.0 W	17.7	106.1	1210211

Address: 326 W GROVE ST
City: Middleboro **County:** PLYMOUTH **State:** MA C**onstruction Deadline:** 03-29-2013

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	47.500	46.300	30.000	37.000	40.900	39.500	51.600	42.300
Transmitting ERP (watts)	125.283	153.432	54.208	6.550	0.674	0.363	2.675	27.340
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	47.500	46.300	30.000	37.000	40.900	39.500	51.600	42.300
Transmitting ERP (watts)	0.351	5.901	52.455	151.828	120.612	27.887	2.679	0.991
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	47.500	46.300	30.000	37.000	40.900	39.500	51.600	42.300
Transmitting ERP (watts)	14.428	1.006	0.875	1.215	13.317	87.541	159.641	85.795

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
28	42-14-21.9 N	070-51-09.3 W	54.9	55.8	

Address: 168 Turkey Hill Lane
City: Cohasset **County:** NORFOLK **State:** MA C**onstruction Deadline:** 03-29-2013

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	99.800	98.300	97.600	71.700	64.800	62.900	86.700	99.100
Transmitting ERP (watts)	185.522	243.217	80.727	11.598	0.756	0.499	2.589	34.953
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	99.800	98.300	97.600	71.700	64.800	62.900	86.700	99.100
Transmitting ERP (watts)	0.521	6.371	65.693	238.024	196.107	43.191	4.256	0.906
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	99.800	98.300	97.600	71.700	64.800	62.900	86.700	99.100
Transmitting ERP (watts)	9.488	0.543	0.538	1.234	8.977	53.553	85.290	45.661

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA226 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
29	41-56-02.0 N	070-35-08.0 W	82.9	128.0	1007828

Address: 265 STATE ROAD
City: PLYMOUTH **County:** PLYMOUTH **State:** MA **Construction Deadline:** 03-29-2013

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	128.000	128.000	128.000	123.500	92.200	86.600	84.900	120.500
Transmitting ERP (watts)	23.222	24.154	10.475	1.931	0.466	0.109	1.398	6.965
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	128.000	128.000	128.000	123.500	92.200	86.600	84.900	120.500
Transmitting ERP (watts)	0.346	4.427	33.055	88.168	72.485	17.790	1.831	0.701
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	128.000	128.000	128.000	123.500	92.200	86.600	84.900	120.500
Transmitting ERP (watts)	9.680	0.561	0.550	1.216	9.292	54.685	90.439	45.409

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
30	42-12-47.6 N	071-32-33.4 W	128.0	58.5	

Address: 26 LUMBER STREET
City: HOPKINTON **County:** MIDDLESEX **State:** MA **Construction Deadline:** 03-29-2013

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	68.900	93.200	99.800	91.500	55.300	59.600	35.700	76.400
Transmitting ERP (watts)	158.662	188.312	64.228	8.830	0.704	0.395	4.080	30.535
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	68.900	93.200	99.800	91.500	55.300	59.600	35.700	76.400
Transmitting ERP (watts)	0.432	6.612	61.028	195.296	166.263	35.500	3.748	0.703
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	68.900	93.200	99.800	91.500	55.300	59.600	35.700	76.400
Transmitting ERP (watts)	18.831	1.074	0.590	1.783	15.144	103.799	219.501	97.060

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA226 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
31	42-38-27.0 N	070-36-24.8 W	36.6	38.7	

Address: 38 Thatcher Rd
City: ROCKLAND **County:** ESSEX **State:** MA C**onstruction Deadline:** 03-29-2013

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	69.500	69.500	69.500	69.500	69.500	66.700	58.400	60.100
Transmitting ERP (watts)	170.519	227.554	76.127	10.393	0.706	0.470	2.520	32.796
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	69.500	69.500	69.500	69.500	69.500	66.700	58.400	60.100
Transmitting ERP (watts)	0.462	5.689	58.840	206.264	174.760	39.385	4.197	0.837
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	69.500	69.500	69.500	69.500	69.500	66.700	58.400	60.100
Transmitting ERP (watts)	20.761	1.510	0.812	1.238	15.269	110.467	237.338	124.965

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
32	42-36-37.9 N	071-33-28.9 W	148.4	46.3	

Address: 142 LOWELL RD
City: GROTON **County:** MIDDLESEX **State:** MA **Construction Deadline:** 03-29-2013

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	129.600	133.000	121.700	118.300	83.000	99.300	81.700	86.000
Transmitting ERP (watts)	209.658	291.175	91.511	11.206	1.156	0.596	4.998	40.617
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	129.600	133.000	121.700	118.300	83.000	99.300	81.700	86.000
Transmitting ERP (watts)	0.597	10.042	80.421	284.569	246.599	46.898	5.186	0.906
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	129.600	133.000	121.700	118.300	83.000	99.300	81.700	86.000
Transmitting ERP (watts)	18.748	1.375	0.781	1.196	15.487	106.791	230.014	118.184

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA226 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
33	42-08-01.1 N	070-43-57.5 W	68.3	80.5	1017973

Address: 178 EAMES WAY
City: Marshfield **County:** PLYMOUTH **State:** MA **Construction Deadline:** 03-29-2013

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	125.300	128.600	128.200	125.800	107.800	113.100	97.600	105.400
Transmitting ERP (watts)	156.993	202.510	73.503	10.210	0.666	0.415	2.429	32.615
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	125.300	128.600	128.200	125.800	107.800	113.100	97.600	105.400
Transmitting ERP (watts)	0.482	5.988	62.083	217.536	187.313	40.576	4.382	0.869
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	125.300	128.600	128.200	125.800	107.800	113.100	97.600	105.400
Transmitting ERP (watts)	21.007	1.466	0.829	1.219	15.907	109.305	228.002	122.541

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
34	41-42-11.1 N	070-46-47.1 W	14.3	59.4	

Address: 55 BENSONBROOK ROAD
City: MARION **County:** PLYMOUTH **State:** MA **Construction Deadline:** 03-29-2013

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	51.300	62.700	66.200	68.700	66.600	60.600	47.100	51.900
Transmitting ERP (watts)	161.079	196.082	67.519	9.213	0.702	0.419	4.077	32.479
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	51.300	62.700	66.200	68.700	66.600	60.600	47.100	51.900
Transmitting ERP (watts)	0.446	6.712	62.074	197.767	163.770	38.273	3.886	0.801
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	51.300	62.700	66.200	68.700	66.600	60.600	47.100	51.900
Transmitting ERP (watts)	3.819	0.784	0.433	6.729	64.256	202.261	164.916	37.606

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA226 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
35	42-21-20.1 N	071-33-16.6 W	156.1	26.5	

Address: 157 UNION STREET
City: MARLBOROUGH **County:** MIDDLESEX **State:** MA C**onstruction Deadline:** 03-29-2013

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	97.800	119.900	113.500	108.400	76.200	73.000	51.900	77.300
Transmitting ERP (watts)	280.304	377.489	119.970	14.810	1.525	0.802	6.660	52.209
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	97.800	119.900	113.500	108.400	76.200	73.000	51.900	77.300
Transmitting ERP (watts)	0.801	13.105	105.660	375.949	325.389	63.339	6.978	1.142
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	97.800	119.900	113.500	108.400	76.200	73.000	51.900	77.300
Transmitting ERP (watts)	30.606	2.831	1.046	2.632	27.909	187.774	419.392	197.441

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
36	42-39-54.6 N	070-38-19.9 W	59.4	44.5	

Address: 68 JOHNSON ROAD
City: ROCKPORT **County:** ESSEX **State:** MA C**onstruction Deadline:** 03-29-2013

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	103.000	103.000	103.000	100.400	95.400	85.100	98.100	103.000
Transmitting ERP (watts)	126.741	159.124	54.189	7.443	0.564	0.334	3.098	25.685
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	103.000	103.000	103.000	100.400	95.400	85.100	98.100	103.000
Transmitting ERP (watts)	0.353	5.360	49.103	157.255	130.117	30.639	2.895	0.641
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	103.000	103.000	103.000	100.400	95.400	85.100	98.100	103.000
Transmitting ERP (watts)	15.787	0.974	0.495	1.442	11.730	84.942	168.331	87.120

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA226 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
37	42-41-29.8 N	071-47-30.8 W	233.8	47.9	

Address: 1140 Greenville Rd
City: ASHBY **County:** MIDDLESEX **State:** MA C**onstruction Deadline:** 03-29-2013

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	138.200	163.500	145.000	68.800	30.000	30.000	30.000
Transmitting ERP (watts)	301.383	343.844	123.915	17.212	1.267	0.862	4.339	57.968
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	138.200	163.500	145.000	68.800	30.000	30.000	30.000
Transmitting ERP (watts)	0.559	6.546	72.077	254.800	226.824	50.359	4.678	0.979
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	138.200	163.500	145.000	68.800	30.000	30.000	30.000
Transmitting ERP (watts)	35.557	2.084	1.375	2.194	29.159	209.483	410.600	215.057

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
38	42-38-54.9 N	071-47-40.6 W	240.8	47.2	

Address: 601-603 FITCHBURG STATE ROAD
City: ASHBY **County:** MIDDLESEX **State:** MA C**onstruction Deadline:** 03-29-2013

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	31.100	159.800	170.800	147.700	56.300	30.000	30.000	30.000
Transmitting ERP (watts)	204.865	233.420	85.530	11.768	0.897	0.575	2.961	39.554
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	31.100	159.800	170.800	147.700	56.300	30.000	30.000	30.000
Transmitting ERP (watts)	0.570	6.676	74.271	261.076	238.587	50.169	4.787	1.001
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	31.100	159.800	170.800	147.700	56.300	30.000	30.000	30.000
Transmitting ERP (watts)	24.123	1.410	0.948	1.499	20.272	140.599	280.157	146.756

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA226 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
40	43-05-58.2 N	070-47-28.6 W	7.6	67.4	

Address: 165 GOSLING RD
City: NEWINGTON **County:** ROCKINGHAM **State:** NH **Construction Deadline:** 03-29-2013

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	34.000	45.500	68.500	72.400	58.800	51.900	57.200	52.000
Transmitting ERP (watts)	205.727	278.300	62.928	5.059	0.711	0.597	1.577	25.136
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	34.000	45.500	68.500	72.400	58.800	51.900	57.200	52.000
Transmitting ERP (watts)	0.559	3.335	47.419	236.351	181.187	26.867	1.510	0.563
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	34.000	45.500	68.500	72.400	58.800	51.900	57.200	52.000
Transmitting ERP (watts)	10.525	0.618	0.497	0.555	7.391	82.592	243.998	90.540

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
41	43-04-39.1 N	071-07-30.3 W	107.0	60.7	1231475

Address: 150 Raymond Road
City: Nottingham **County:** ROCKINGHAM **State:** NH **Construction Deadline:** 03-29-2013

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	54.900	95.800	122.100	119.300	102.200	66.300	44.100	30.000
Transmitting ERP (watts)	160.334	230.049	54.265	4.271	0.586	0.522	1.415	21.993
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	54.900	95.800	122.100	119.300	102.200	66.300	44.100	30.000
Transmitting ERP (watts)	0.493	3.289	48.427	238.724	177.920	27.618	1.619	0.581
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	54.900	95.800	122.100	119.300	102.200	66.300	44.100	30.000
Transmitting ERP (watts)	10.353	0.693	0.601	0.662	8.753	100.864	305.315	110.743

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA226 **File Number:** **Print Date:**

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
42	43-13-24.3 N	071-14-23.2 W	189.0	38.7	

Address: 50 OLD CANTERBURY RD
City: NORTHWOOD **County:** ROCKINGHAM **State:** NH **Construction Deadline:** 03-29-2013

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	43.800	80.800	68.900	30.000	53.500	30.000
Transmitting ERP (watts)	114.248	162.456	37.049	2.808	0.392	0.366	0.961	16.015
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	43.800	80.800	68.900	30.000	53.500	30.000
Transmitting ERP (watts)	0.544	3.573	49.915	233.638	184.420	30.453	1.413	0.618
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	30.000	30.000	43.800	80.800	68.900	30.000	53.500	30.000
Transmitting ERP (watts)	8.132	0.494	0.387	0.467	6.390	72.302	182.164	77.916

Location	Latitude	Longitude	Ground Elevation (meters)	Structure Hgt to Tip (meters)	Antenna Structure Registration No.
43	42-59-40.7 N	070-46-58.5 W	12.5	59.4	

Address: 96 GROVE RD
City: RYE **County:** ROCKINGHAM **State:** NH **Construction Deadline:** 03-29-2013

Antenna: 1 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	49.700	62.100	64.000	64.300	63.700	45.100	38.900	54.200
Transmitting ERP (watts)	146.515	206.846	49.164	3.766	0.505	0.452	1.193	17.877
Antenna: 2 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	49.700	62.100	64.000	64.300	63.700	45.100	38.900	54.200
Transmitting ERP (watts)	0.464	2.913	42.460	206.462	152.606	24.148	1.373	0.460
Antenna: 3 Azimuth (from true north)	**0**	**45**	**90**	**135**	**180**	**225**	**270**	**315**
Antenna Height AAT (meters)	49.700	62.100	64.000	64.300	63.700	45.100	38.900	54.200
Transmitting ERP (watts)	10.168	0.644	0.536	0.576	7.457	86.483	257.603	87.494

Control Points:

Control Pt. No. 2

Address: 100 LOWDER BROOK DR
City: WESTWOOD **County:** NORFOLK **State:** MA **Telephone Number:** (617)462-7094

Licensee Name: AT&T MOBILITY SPECTRUM LLC

Call Sign: KNKA226 **File Number:** **Print Date:**

Waivers/Conditions:

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

Commission approval of this application and the licenses contained therein are subject to the conditions set forth in the Memorandum Opinion and Order, adopted on December 29, 2006 and released on March 26, 2007, and revised in the Order on Reconsideration, adopted and released on March 26, 2007. See AT&T Inc. and BellSouth Corporation Application for Transfer of Control, WC Docket No. 06-74, Memorandum Opinion and Order, FCC 06-189 (rel. Mar. 26, 2007); AT&T Inc. and BellSouth Corporation, WC Docket No. 06-74, Order on Reconsideration, FCC 07-44 (rel. Mar. 26, 2007).

ULS License

AWS-3 (1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz) License - WQVN675 - AT&T Wireless Services 3 LLC

Call Sign	WQVN675	Radio Service	AT - AWS-3 (1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz)
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	BEA003 - Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH-RI-VT	Channel Block	J
Submarket	0	Associated Frequencies (MHz)	001770.00000000-001780.00000000 002170.00000000-002180.00000000

Dates

Grant	04/08/2015	Expiration	04/08/2027
Effective	10/21/2017	Cancellation	

Buildout Deadlines

1st	04/08/2021	2nd	04/08/2027

Notification Dates

1st	2nd

Licensee

FRN	0023910920	Type	Limited Liability Company

Licensee

AT&T Wireless Services 3 LLC
208 S Akard St., RM 1016
Dallas, TX 75202
ATTN Leslie Wilson

P:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com

Contact

AT&T MOBILITY LLC
Michael P Goggin
1120 20th Street, NW - Suite 1000
Washington, DC 20036
ATTN Michael P. Goggin

P:(202)457-2055
F:(202)457-3073
E:michael.p.goggin@att.com

Ownership and Qualifications

Radio Service Type	Mobile		
Regulatory Status	Common Carrier, Non-Common Carrier	Interconnected	Yes

Alien Ownership
The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications
The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity Gender

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: AT&T WIRELESS SERVICES 3 LLC

ATTN: LESLIE WILSON
AT&T WIRELESS SERVICES 3 LLC
208 S AKARD ST., RM 1016
DALLAS, TX 75202

Call Sign	File Number
WQVN675	
Radio Service AT - AWS-3 (1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz)	

FCC Registration Number (FRN): 0023910920

Grant Date	Effective Date	Expiration Date	Print Date
04-08-2015	10-21-2017	04-08-2027	

Market Number	Channel Block	Sub-Market Designator
BEA003	J	0

Market Name
Boston-Worcester-Lawrence-Lowe

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
04-08-2021	04-08-2027		

Waivers/Conditions:

NONE

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

ULS License

Wireless Communications Service License - KNLB210 - New Cingular Wireless PCS, LLC

This license has pending applications: 0007815701

Call Sign	KNLB210	Radio Service	WS - Wireless Communications Service
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	MEA001 - Boston	Channel Block	A
Submarket	0	Associated Frequencies (MHz)	002305.00000000-002310.00000000 002350.00000000-002355.00000000

Dates

Grant	09/27/2010	Expiration	07/21/2017
Effective	07/21/2017	Cancellation	

Buildout Deadlines

1st	03/13/2017	2nd	09/13/2019

Notification Dates

1st	03/03/2017	2nd	

Licensee

FRN	0003291192	Type	Limited Liability Company

Licensee

New Cingular Wireless PCS, LLC
208 S. Akard St., RM 1016
Dallas, TX 75202
ATTN Leslie A. Wilson

P:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com

Contact

AT&T Mobility LLC

1120 20th Street, NW - Suite 1000
Washington, DC 20036
ATTN Michael P. Goggin

P:(202)457-2055
F:(202)457-3073
E:michael.p.goggin@att.com

Ownership and Qualifications

Radio Service Type

Regulatory Status	Interconnected

Alien Ownership
The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications
The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity	Gender

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: LESLIE A. WILSON
NEW CINGULAR WIRELESS PCS, LLC
208 S. AKARD ST., RM 1016
DALLAS, TX 75202

Call Sign	File Number
KNLB210	
Radio Service WS - Wireless Communications Service	

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
09-27-2010	07-21-2017	07-21-2017	

Market Number	Channel Block	Sub-Market Designator
MEA001	A	0

Market Name
Boston

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
03-13-2017	09-13-2019		

Waivers/Conditions:

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/Mexico), future coordination of any base station transmitters shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

This authorization is subject to the condition that the remaining balance of the winning bid amount will be paid in accordance with Part 1 of the Commission's rules, 47 C.F.R. Part 1.

License renewal is granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

Pursuant to WCS Order on Reconsideration, FCC 12-130, in order to obtain a renewal expectancy at the 7/21/17 renewal deadline, a licensee must, for each license area, certify that it has maintained, or exceeded, the level of coverage demonstrated for thatlicense area at the 3/13/2017 construction deadline.

ULS License

Wireless Communications Service License - KNLB200 - New Cingular Wireless PCS, LLC

This license has pending applications: 0007815643

Call Sign	KNLB200	Radio Service	WS - Wireless Communications Service
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	MEA001 - Boston	Channel Block	B
Submarket	0	Associated Frequencies (MHz)	002310.00000000-002315.00000000 002355.00000000-002360.00000000

Dates

Grant	09/27/2010	Expiration	07/21/2017
Effective	07/21/2017	Cancellation	

Buildout Deadlines

1st	03/13/2017	2nd	09/13/2019

Notification Dates

1st	03/03/2017	2nd	

Licensee

FRN	0003291192	Type	Limited Liability Company

Licensee

New Cingular Wireless PCS, LLC
208 S. Akard St., RM 1016
Dallas, TX 75202
ATTN Leslie A. Wilson

P:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com

Contact

AT&T Mobility LLC

1120 20th Street, NW - Suite 1000
Washington, DC 20036
ATTN Michael P. Goggin

P:(202)457-2055
F:(202)457-3073
E:michael.p.goggin@att.com

Ownership and Qualifications

Radio Service Type Fixed, Mobile

Regulatory Status	Common Carrier, Non-Common Carrier	Interconnected	Yes

Alien Ownership
The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications
The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity Gender

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS PCS, LLC

ATTN: LESLIE A. WILSON
NEW CINGULAR WIRELESS PCS, LLC
208 S. AKARD ST., RM 1016
DALLAS, TX 75202

Call Sign	File Number
KNLB200	
Radio Service WS - Wireless Communications Service	

FCC Registration Number (FRN): 0003291192

Grant Date	Effective Date	Expiration Date	Print Date
09-27-2010	07-21-2017	07-21-2017	

Market Number	Channel Block	Sub-Market Designator
MEA001	B	0

Market Name
Boston

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
03-13-2017	09-13-2019		

Waivers/Conditions:

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/Mexico), future coordination of any base station transmitters shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

Conditions:
Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

This authorization is subject to the condition that the remaining balance of the winning bid amount will be paid in accordance with Part 1 of the Commission's rules, 47 C.F.R. Part 1.

Spectrum Lease associated with this license. See Spectrum Leasing Arrangement Letter dated 04/01/2005 and File No. 0001999501.

License renewal is granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

Pursuant to WCS Order on Reconsideration, FCC 12-130, in order to obtain a renewal expectancy at the 7/21/17 renewal deadline, a licensee must, for each license area, certify that it has maintained, or exceeded, the level of coverage demonstrated for thatlicense area at the 3/13/2017 construction deadline.

ULS License

Wireless Communications Service License - WPQL634 - New Cingular Wireless Services, Inc.

This license has pending applications: 0007789910

Call Sign	WPQL634	Radio Service	WS - Wireless Communications Service
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	REA001 - Northeast	Channel Block	C
Submarket	7	Associated Frequencies (MHz)	002315.00000000-002320.00000000

Dates

Grant	09/27/2010	Expiration	07/21/2017
Effective	07/06/2017	Cancellation	

Buildout Deadlines

1st		2nd	09/13/2021

Notification Dates

1st		2nd	

Licensee

FRN	0004122032	Type	Corporation

Licensee

New Cingular Wireless Services, Inc.
208 S. Akard St., RM 1016
Dallas, TX 75202
ATTN Leslie A. Wilson

P:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com

Contact

AT&T Mobility LLC

1120 20th Street, NW
Washington, DC 20036
ATTN Michael P. Goggin

P:(202)457-2055
F:(202)457-3074
E:michael.p.goggin@cingular.com

Ownership and Qualifications

Radio Service Type	Fixed, Mobile		
Regulatory Status	Common Carrier	Interconnected	Yes

Alien Ownership
The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications
The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits
This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NEW CINGULAR WIRELESS SERVICES, INC.

ATTN: LESLIE A. WILSON
NEW CINGULAR WIRELESS SERVICES, INC.
208 S. AKARD ST., RM 1016
DALLAS, TX 75202

Call Sign	File Number
WPQL634	
Radio Service WS - Wireless Communications Service	

FCC Registration Number (FRN): 0004122032

Grant Date	Effective Date	Expiration Date	Print Date
09-27-2010	07-06-2017	07-21-2017	

Market Number	Channel Block	Sub-Market Designator
REA001	C	7

Market Name
Northeast

1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
	09-13-2021		

Waivers/Conditions:

License renewal granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/Mexico), future coordination of any base station transmitters shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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This authorization is subject to the condition that the remaining balance of the winning bid amount will be paid in accordance with Part 1 of the Commission's rules, 47 C.F.R. Part 1.

This license is conditioned upon compliance with the provisions of Applications of AT&T Wireless Services, Inc. and Cingular Wireless Corporation For Consent to Transfer Control of Licenses and Authorizations, Memorandum Opinion and Order, FCC 04-255 (rel. Oct. 26, 2004).

Commission approval of this application and the licenses contained therein are subject to the conditions set forth in the Memorandum Opinion and Order, adopted on December 29, 2006 and released on March 26, 2007, and revised in the Order on Reconsideration, adopted and released on March 26, 2007. See AT&T Inc. and BellSouth Corporation Application for Transfer of Control, WC Docket No. 06-74, Memorandum Opinion and Order, FCC 06-189 (rel. Mar. 26, 2007); AT&T Inc. and BellSouth Corporation, WC Docket No. 06-74, Order on Reconsideration, FCC 07-44 (rel. Mar. 26, 2007).

License renewal is granted on a conditional basis, subject to the outcome of FCC proceeding WT Docket No. 10-112 (see FCC 10-86, paras. 113 and 126).

Pursuant to WCS Order on Reconsideration, FCC 12-130, in order to obtain a renewal expectancy at the 7/21/17 renewal deadline, a licensee must, for each license area, certify that it has maintained, or exceeded, the level of coverage demonstrated for thatlicense area at the 3/13/2017 construction deadline.

SHEET INDEX

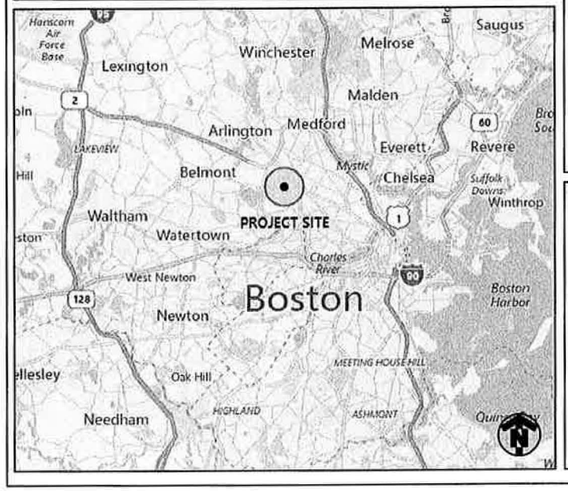
NO.	DESCRIPTION
T1	TITLE SHEET
C1	GENERAL NOTES
C2	OVERALL SITE PLAN
C2A	ENLARGED SITE PLAN
C3	ELEVATION VIEW
C4	ANTENNA ORIENTATION PLAN
C5	EQUIPMENT DETAILS
C6	PLUMBING DIAGRAM
C7	GROUNDING DETAILS

DRIVING DIRECTIONS

FROM 550 COCHITUATE RD.:

GET IN I-90 EAST/MASSACHUETTS TURNPIKE. HEAD NORTHEAST TOWARD LEGGATT MCCALL CONN. TURN LEFT ONTO LEGGATT MCCALL CONN. CONTINUE ONTO BURR STREET. TURN LEFT ONT COCHITUATE ROAD. USE THE RIGHT LANE TO TAKE THE RAMP TO I-90 EAST/MASSPIKE WEST/SPRINGFIELD/BOSTON. KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR I-90 EAST/I-95/MASSACHUETTS TURNPIKE/BOSTON AND MERGE ONTO I-90 EAST/MASSACHUETTS TURNPIKE. FOLLOW I-90 EAST/MASSACHUETTS TURNPIKE TO BOSTON. TAKE EXIT 18 FROM I-90 EAST/MASSACHUETTS TURNPIKE. MERGE ONTO I-90 EAST/MASSACHUETTS TURNPIKE (SIGNS FOR 90 EAST/I-95/BOSTON). USE THE LEFT LANE TO TAKE EXIT 18 TOWARD CAMBRIDGE. TAKE MEMORIAL DRIVE, GARDEN STREET AND SHERMAN STREET TO YOUR DESTINATION IN CAMBRIDGE. MERGE ONTO CAMBRIDGE STREET. TURN LEFT ONTO MEMORIAL DRIVE. TURN RIGHT TO STAY ON MEMORIAL DRIVE. TURN RIGHT AT THE 1ST CROSS STREET ONTO MT AUBURN STREET. TURN LEFT AT THE 1ST CROSS STREET ONTO ASH STREET. CONTINUE ONTO MASON STREET. TURN LEFT ONTO GARDEN STREET. SLIGHT RIGHT ONTO SHERMAN STREET. TURN RIGHT ONTO WALDEN SQUARE ROAD. TURN RIGHT.

LOCATION MAP



PROJECT

LTE 3C/4C/5C/6C/7C/RETROFIT/RRH ADD

SITE NAME

CAMBRIDGE SHERMAN STREET

CELL SITE ID

MAL02852

FA SITE NUMBER

11585657

PACE ID

MRCTB025645/MRCTB015346/MRCTB025696/MRCTB025686
MRCTB025668/MRCTB025683/MRCTB018952

SITE ADDRESS

102 SHERMAN STREET
CAMBRIDGE, MA 02140

STRUCTURE TYPE

ROOFTOP

PROJECT TEAM

smartlink

PROJECT MANAGER

INFINIGY

1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

ENGINEER

SCOPE OF WORK (PER LTE RFDS, DATED 03/28/2018, V3.00):

- HANDICAP ACCESS REQUIREMENTS ARE NOT REQUIRED.
- FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.
- FACILITY HAS NO PLUMBING OR REFRIGERANTS.
- THIS FACILITY SHALL MEET OR EXCEED ALL FAA AND FCC REGULATORY REQUIREMENTS.
- ALL NEW MATERIAL SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR UNLESS NOTED OTHERWISE. EQUIPMENT, ANTENNAS/RRU AND CABLES FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.

TOWER
- REMOVE (3) PANEL ANTENNAS
- ADD (3) PANEL ANTENNAS
- ADD (3) RRUS-E2
- ADD (3) RRUS-32
- ADD (3) B14 4478
- ADD (3) RRUS-32 B66
- REPURPOSE (3) RRUS-11
- ADD (6) DIPLEXERS
- ADD (3) DC6 SQUID WITH (6) DC TRUNKS

GROUND
- REPLACE DUSWITH 5216
- ADD XMU
- ADD IDLE

PROJECT SUMMARY

SITE NAME:	CAMBRIDGE SHERMAN STREET	
CELL SITE ID:	MAL02852	
FA SITE #:	11585657	
SITE ADDRESS:	102 SHERMAN STREET CAMBRIDGE, MA 02140	
COUNTY:	MIDDLESEX	
SITE COORDINATES: LATITUDE:	42.3890300° N	(NAD 83)
LONGITUDE:	71.1293920° W	(NAD 83)
ELEVATION:	±105'	(AMSL)
RAD CENTER	±93'/±96'	(AGL)
LANDLORD:	WSQ LIMITED PARTNERSHIP C/O WINNCOMPANIES SIX FANEUIL HALL MARKETPLACE BOSTON, MA 02109	
APPLICANT:	AT&T MOBILITY 550 COCHITUATE RD. FRAMINGHAM, MA 01701	
CLIENT REPRESENTATIVE:	SMARTLINK, LLC 85 RANGEWAY RD., BUILDING 3, SUITE 102 NORTH BILLERICA, MA 01862	
CONTACT:	EDWARD WEISSMAN (917)528-1857	
ENGINEER:	INFINIGY 1033 WATERVLIET SHAKER ROAD ALBANY, NY 12205	
CONTACT:	ALEX WELLER (518) 690-0790	
BUILDING CODE:	MA BUILDING CODE UNIFORM BUILDING CODE BUILDING OFFICIALS & CODE ADMINISTRATORS UNIFORM MECHANICAL CODE UNIFORM PLUMBING CODE LOCAL BUILDING CODE CITY/COUNTY ORDINANCES	
ELECTRICAL CODE:	NATIONAL ELECTRICAL CODE (LATEST EDITION)	

811 Know what's below. Call before you dig.

TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN MASSACHUSETTS, CALL DIG SAFE SYSTEM, INC.
TOLL FREE: 1-888-344-7233 OR
www.digsafe.com
MASSACHUSETTS STATUTE REQUIRES MIN OF 2 WORKING DAYS NOTICE BEFORE YOU EXCAVATE

INFINIGY
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

at&t

COMMONWEALTH OF MASSACHUSETTS
JOHN S. STEVENS
CIVIL
APR 03 2018
REGISTERED PROFESSIONAL ENGINEER

No.	Submittal / Revision	App'd	Date
2	REVISED PER SCOPE	BMM	04/03/18
1	ISSUED FOR PERMIT	MPS	12/08/17
0	ISSUED FOR REVIEW	BMM	11/22/17

Drawn: BMM Date: 11/22/17
Designed: ASW Date: 11/22/17
Checked: AJD Date: 11/22/17

Project Number: 499-006

Project Title:
CAMBRIDGE SHERMAN STREET
MAL02852
FA# 11585657
102 SHERMAN STREET
CAMBRIDGE, MA 02140

Prepared For: smartlink

Drawing Scale: AS NOTED
Date: 04/03/18

CD

Drawing Title
TITLE PAGE

Drawing Number
T1

GENERAL NOTES

PART 1 – GENERAL REQUIREMENTS

1.1 THE WORK SHALL COMPLY WITH APPLICABLE NATIONAL CODES AND STANDARDS, LATEST EDITION, AND PORTIONS THEREOF, INCLUDED BUT NOT LIMITED TO THE FOLLOWING:
- A. GR-63-CORE NEBS REQUIREMENTS: PHYSICAL PROTECTION
- B. GR-78-CORE GENERIC REQUIREMENTS FOR THE PHYSICAL DESIGN AND MANUFACTURE OF TELECOMMUNICATIONS EQUIPMENT.
- C. NATIONAL FIRE PROTECTION ASSOCIATION CODES AND STANDARDS (NFPA) INCLUDING NFPA 70 (NATIONAL ELECTRICAL CODE – "NEC").
- D. AND NFPA 101 (LIFE SAFETY CODE).
- E. AMERICAN SOCIETY FOR TESTING OF MATERIALS (ASTM).
- F. INSTITUTE OF ELECTRONIC AND ELECTRICAL ENGINEERS (IEEE).

1.2 DEFINITIONS:
A: WORK: THE SUM OF TASKS AND RESPONSIBILITIES IDENTIFIED IN THE CONTRACT DOCUMENTS.
B: COMPANY: AT&T CORPORATION
C. ENGINEER: SYNONYMOUS WITH ARCHITECT & ENGINEER AND "A&E". THE DESIGN PROFESSIONAL HAVING PROFESSIONAL RESPONSIBILITY FOR DESIGN OF THE PROJECT.
D: CONTRACTOR: CONSTRUCTION CONTRACTOR; CONSTRUCTION VENDOR; INDIVIDUAL OR ENTITY WHO AFTER EXECUTION OF A CONTRACT IS BOUND TO ACCOMPLISH THE WORK.
E: THIRD PARTY VENDOR OR AGENCY: A VENDOR OR AGENCY ENGAGED SEPARATELY BY THE COMPANY, A&E, OR CONTRACTOR TO PROVIDE MATERIALS OR TO ACCOMPLISH SPECIFIC TASKS RELATED TO BUT NOT INCLUDED IN THE WORK.

1.3 POINT OF CONTACT: COMMUNICATION BETWEEN THE COMPANY AND THE CONTRACTOR SHALL FLOW THROUGH THE SINGLE COMPANY SITE DEVELOPMENT SPECIALIST OR OTHER PROJECT COORDINATOR APPOINTED TO MANAGE THE PROJECT FOR THE COMPANY.

1.4 ON-SITE SUPERVISION: THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL EMPLOY A COMPETENT SUPERINTENDENT WHO SHALL BE IN ATTENDANCE AT THE SITE AT ALL TIMES DURING PERFORMANCE OF THE WORK.

1.5 DRAWINGS, SPECIFICATIONS AND DETAILS REQUIRED AT JOBSITE: THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A FULL SET OF THE CONSTRUCTION DRAWINGS, STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES, AND THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES AT THE JOBSITE FROM MOBILIZATION THROUGH CONSTRUCTION COMPLETION.
A. THE JOBSITE DRAWINGS, SPECIFICATIONS AND DETAILS SHALL BE CLEARLY MARKED DAILY IN PENCIL WITH ANY CHANGES IN CONSTRUCTION OVER WHAT IS DEPICTED IN THE DOCUMENTS. AT CONSTRUCTION COMPLETION, THIS JOBSITE MARKUP SET SHALL BE DELIVERED TO THE COMPANY OR COMPANY'S DESIGNATED REPRESENTATIVE TO BE FORWARDED TO THE COMPANY'S A&E VENDOR FOR PRODUCTION OF "AS-BUILT" DRAWINGS.

1.6 USE OF JOB SITE: THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION AND RELATED OPERATIONS INCLUDING STAGING AND STORAGE OF MATERIALS AND EQUIPMENT, PARKING, TEMPORARY FACILITIES, AND WASTE STORAGE TO THE LEASE PARCEL UNLESS OTHERWISE PERMITTED BY THE CONTRACT DOCUMENTS.

1.7 NOTICE TO PROCEED:
A. NO WORK SHALL COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED.
B. UPON RECEIVING NOTICE TO PROCEED, CONTRACTOR SHALL FULLY PERFORM ALL WORK NECESSARY TO PROVIDE AT&T WITH AN OPERATIONAL WIRELESS FACILITY.

PART 2 – EXECUTION

2.1 TEMPORARY UTILITIES AND FACILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY UTILITIES AND FACILITIES NECESSARY EXCEPT AS OTHERWISE INDICATED IN THE CONSTRUCTION DOCUMENTS. TEMPORARY UTILITIES AND FACILITIES INCLUDE, POTABLE WATER, HEAT, HVAC, ELECTRICITY, SANITARY FACILITIES, WASTE DISPOSAL FACILITIES, AND TELEPHONE/COMMUNICATION SERVICES. PROVIDE TEMPORARY UTILITIES AND FACILITIES IN ACCORDANCE WITH OSHA AND THE AUTHORITY HAVING JURISDICTION. CONTRACTOR MAY UTILIZE THE COMPANY ELECTRICAL SERVICE IN THE COMPLETION OF THE WORK WHEN IT BECOMES AVAILABLE. USE OF THE LESSORS OR SITE OWNER'S UTILITIES OR FACILITIES IS EXPRESSLY FORBIDDEN EXCEPT AS OTHERWISE ALLOWED IN THE CONTRACT DOCUMENTS.

2.2 ACCESS TO WORK: THE CONTRACTOR SHALL PROVIDE ACCESS TO THE JOB SITE FOR AUTHORIZED COMPANY PERSONNEL AND AUTHORIZED REPRESENTATIVES OF THE ARCHITECT/ENGINEER DURING ALL PHASES OF THE WORK.

2.3 TESTING: REQUIREMENTS FOR TESTING BY THIS CONTRACTOR SHALL BE AS INDICATED HEREWITH, ON THE CONSTRUCTION DRAWINGS, AND IN THE INDIVIDUAL SECTIONS OF THESE SPECIFICATIONS. SHOULD COMPANY CHOOSE TO ENGAGE ANY THIRD-PARTY TO CONDUCT ADDITIONAL TESTING, THE CONTRACTOR SHALL COOPERATE WITH AND PROVIDE A WORK AREA FOR COMPANY'S TEST AGENCY.

2.4 COMPANY FURNISHED MATERIAL AND EQUIPMENT: ALL HANDLING, STORAGE AND INSTALLATION OF COMPANY FURNISHED MATERIAL AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
A. CONTRACTOR SHALL PROCURE ALL OTHER REQUIRED WORK RELATED MATERIALS NOT PROVIDED BY AT&T TO SUCCESSFULLY CONSTRUCT A WIRELESS FACILITY.

2.5 DIMENSIONS: VERIFY DIMENSIONS INDICATED ON DRAWINGS WITH FIELD DIMENSIONS BEFORE FABRICATION OR ORDERING OF MATERIALS. DO NOT SCALE DRAWINGS.

2.6 EXISTING CONDITIONS: NOTIFY THE COMPANY REPRESENTATIVE OF EXISTING CONDITIONS DIFFERING FROM THOSE INDICATED ON THE DRAWINGS. DO NOT REMOVE OR ALTER STRUCTURAL COMPONENTS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT AND ENGINEER.

PART 3 – RECEIPT OF MATERIAL & EQUIPMENT

3.1 RECEIPT OF MATERIAL AND EQUIPMENT: CONTRACTOR IS RESPONSIBLE FOR AT&T PROVIDED MATERIAL AND EQUIPMENT AND UPON RECEIPT SHALL:
- A. ACCEPT DELIVERIES AS SHIPPED AND TAKE RECEIPT.
- B. VERIFY COMPLETENESS AND CONDITION OF ALL DELIVERIES.
- C. TAKE RESPONSIBILITY FOR EQUIPMENT AND PROVIDE INSURANCE PROTECTION AS REQUIRED IN AGREEMENT.
- D. RECORD ANY DEFECTS OR DAMAGES AND WITHIN TWENTY-FOUR HOURS AFTER RECEIPT, REPORT TO AT&T OR ITS DESIGNATED PROJECT REPRESENTATIVE OF SUCH.
- E. PROVIDE SECURE AND NECESSARY WEATHER PROTECTED WAREHOUSING.
- F. COORDINATE SAFE AND SECURE TRANSPORTATION OF MATERIAL AND EQUIPMENT, DELIVERING AND OFF-LOADING FROM CONTRACTOR'S WAREHOUSE TO SITE.

PART 4 – GENERAL REQUIREMENTS FOR CONSTRUCTION

4.1 CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH. AT THE COMPLETION OF THE WORK, CONTRACTOR SHALL REMOVE FROM THE SITE ALL REMAINING RUBBISH, IMPLEMENTS, TEMPORARY FACILITIES, AND SURPLUS MATERIALS.

4.2 EQUIPMENT ROOMS SHALL AT ALL TIMES BE MAINTAINED "BROOM CLEAN" AND CLEAR OF DEBRIS.

4.3 CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO DISCOVER AND LOCATE ANY HAZARDOUS CONDITION.
A. IN THE EVENT CONTRACTOR ENCOUNTERS ANY HAZARDOUS CONDITION WHICH HAS NOT BEEN ABATED OR OTHERWISE MITIGATED, CONTRACTOR AND ALL OTHER PERSONS SHALL IMMEDIATELY STOP WORK IN THE AFFECTED AREA AND NOTIFY COMPANY IN WRITING. THE WORK IN THE AFFECTED AREA SHALL NOT BE RESUMED EXCEPT BY WRITTEN NOTIFICATION BY COMPANY.
B. CONTRACTOR AGREES TO USE CARE WHILE ON THE SITE AND SHALL NOT TAKE ANY ACTION THAT WILL OR MAY RESULT IN OR CAUSE THE HAZARDOUS CONDITION TO BE FURTHER RELEASED IN THE ENVIRONMENT, OR TO FURTHER EXPOSE INDIVIDUALS TO THE HAZARD.

4.4 CONTRACTOR'S ACTIVITIES SHALL BE RESTRICTED TO THE PROJECT LIMITS. SHOULD AREAS OUTSIDE THE PROJECT LIMITS BE AFFECTED BY CONTRACTOR'S ACTIVITIES, CONTRACTOR SHALL IMMEDIATELY RETURN THEM TO ORIGINAL CONDITION.

4.5 CONDUCT TESTING AS REQUIRED HEREIN.

PART 5 – TESTS AND INSPECTIONS

5.1 TESTS AND INSPECTIONS:
- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTS, INSPECTIONS AND PROJECT DOCUMENTATION.
- B. CONTRACTOR SHALL COORDINATE TEST AND INSPECTION SCHEDULES WITH COMPANY'S REPRESENTATIVE WHO MUST BE ON SITE TO WITNESS SUCH TESTS AND INSPECTIONS.
- C. WHEN THE USE OF A THIRD PARTY INDEPENDENT TESTING AGENCY IS REQUIRED, THE AGENCY THAT IS SELECTED MUST PERFORM SUCH WORK ON A REGULAR BASIS IN THE STATE WHERE THE PROJECT IS LOCATED AND HAVE A THOROUGH UNDERSTANDING OF LOCAL AVAILABLE MATERIALS, INCLUDING THE SOIL, ROCK, AND GROUNDWATER CONDITIONS.
- D. THE THIRD PARTY TESTING AGENCY IS TO BE FAMILIAR WITH THE APPLICABLE REQUIREMENTS FOR THE TESTS TO BE DONE, EQUIPMENT TO BE USED, AND ASSOCIATED HEALTH AND SAFETY ISSUES.
- E. SITE RESISTANCE TO EARTH TESTING PER EXHIBIT: CELL SITE GROUNDING SYSTEM DESIGN.
- F. ANTENNA AND COAX SWEEP TESTS PER EXHIBIT: ANTENNA TRANSMISSION LINE ACCEPTANCE STANDARDS.
- G. ALL OTHER TESTS REQUIRED BY COMPANY OR JURISDICTION.

PART 6 – TRENCHING AND BACKFILLING

6.1 TRENCHING AND BACKFILLING: THE CONTRACTOR SHALL PERFORM ALL EXCAVATION OF EVERY DESCRIPTION AND OF WHATEVER SUBSTANCES ENCOUNTERED, TO THE DEPTHS INDICATED ON THE CONSTRUCTION DRAWINGS OR AS OTHERWISE SPECIFIED.

A. PROTECTION OF EXISTING UTILITIES: THE CONTRACTOR SHALL CHECK WITH THE LOCAL UTILITIES AND THE RESPECTIVE UTILITY LOCATOR COMPANIES PRIOR TO STARTING EXCAVATION OPERATIONS IN EACH RESPECTIVE AREA TO ASCERTAIN THE LOCATIONS OF KNOWN UTILITY LINES. THE LOCATIONS, NUMBER AND TYPES OF EXISTING UTILITY LINES DETAILED ON THE CONSTRUCTION DRAWINGS ARE APPROXIMATE AND DO NOT REPRESENT EXACT INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL LINES DAMAGED DURING EXCAVATION AND ALL ASSOCIATED OPERATIONS. ALL UTILITY LINES UNCOVERED DURING THE EXCAVATION OPERATIONS, SHALL BE PROTECTED FROM DAMAGE DURING EXCAVATION AND ASSOCIATED OPERATIONS. ALL REPAIRS SHALL BE APPROVED BY THE UTILITY COMPANY.

B. HAND DIGGING: UNLESS APPROVED IN WRITING OTHERWISE, ALL DIGGING WITHIN AN EXISTING CELL SITE COMPOUND IS TO BE DONE BY HAND.

C. DURING EXCAVATION, MATERIAL SUITABLE FOR BACKFILLING SHALL BE STOCKPILED IN AN ORDERLY MANNER A SUFFICIENT DISTANCE FROM THE BANKS OF THE TRENCH TO AVOID OVERLOADING AND TO PREVENT SLIDES OR CAVE-INS. ALL EXCAVATED MATERIALS NOT REQUIRED OR SUITABLE FOR BACKFILL SHALL BE REMOVED AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE.

D. GRADING SHALL BE DONE AS MAY BE NECESSARY TO PREVENT SURFACE WATER FROM FLOWING INTO TRENCHES OR OTHER EXCAVATIONS, AND ANY WATER ACCUMULATING THEREIN SHALL BE REMOVED BY PUMPING OR BY OTHER APPROVED METHOD.

E. SHEETING AND SHORING SHALL BE DONE AS NECESSARY FOR THE PROTECTION OF THE WORK AND FOR THE SAFETY OF PERSONNEL. UNLESS OTHERWISE INDICATED, EXCAVATION SHALL BE BY OPEN CUT, EXCEPT THAT SHORT SECTIONS OF A TRENCH MAY BE TUNNELED IF, THE CONDUIT CAN BE SAFELY AND PROPERLY INSTALLED AND BACKFILL CAN BE PROPERLY TAMPED IN SUCH TUNNEL SECTIONS. EARTH EXCAVATION SHALL COMPRISE ALL MATERIALS AND SHALL INCLUDE CLAY, SILT, SAND, MUCK, GRAVEL, HARDPAN, LOOSE SHALE, AND LOOSE STONE.

F. TRENCHES SHALL BE OF NECESSARY WIDTH FOR THE PROPER LAYING OF THE CONDUIT OR CABLE, AND THE BANKS SHALL BE AS NEARLY VERTICAL AS PRACTICABLE. THE BOTTOM OF THE TRENCHES SHALL BE ACCURATELY GRADED TO PROVIDE UNIFORM BEARING AND SUPPORT FOR EACH SECTION OF THE CONDUIT OR CABLE ON UNDISTURBED SOIL AT EVERY POINT ALONG ITS ENTIRE LENGTH. EXCEPT WHERE ROCK IS ENCOUNTERED, CARE SHALL BE TAKEN NOT TO EXCAVATE BELOW THE DEPTHS INDICATED. WHERE ROCK EXCAVATIONS ARE NECESSARY, THE ROCK SHALL BE EXCAVATED TO A MINIMUM OVER DEPTH OF 6 INCHES BELOW THE TRENCH DEPTHS INDICATED ON THE CONSTRUCTION DRAWINGS OR SPECIFIED. OVER DEPTHS IN THE ROCK EXCAVATION AND UNAUTHORIZED OVER DEPTHS SHALL BE THOROUGHLY BACK FILLED AND TAMPED TO THE APPROPRIATE GRADE. WHENEVER WET OR OTHERWISE UNSTABLE SOIL THAT IS INCAPABLE OF PROPERLY SUPPORTING THE CONDUIT OR CABLE IS ENCOUNTERED IN THE BOTTOM OF THE TRENCH, SUCH SOLID SHALL BE REMOVED TO A MINIMUM OVER DEPTH OF 6 INCHES AND THE TRENCH BACKFILLED TO THE PROPER GRADE WITH EARTH OF OTHER SUITABLE MATERIAL, AS HEREINAFTER SPECIFIED.

G. BACKFILLING OF TRENCHES. TRENCHES SHALL NOT BE BACKFILLED UNTIL ALL SPECIFIED TESTS HAVE BEEN PERFORMED AND ACCEPTED. WHERE COMPACTED BACKFILL IS NOT INDICATED THE TRENCHES SHALL BE CAREFULLY BACKFILLED WITH SELECT MATERIAL SUCH AS EXCAVATED SOILS THAT ARE FREE OF ROOTS, SOD, RUBBISH OR STONES, DEPOSITED IN 6 INCH LAYERS AND THOROUGHLY AND CAREFULLY RAMMED UNTIL THE CONDUIT OR CABLE HAS A COVER OF NOT LESS THAN 1 FOOT. THE REMAINDER OF THE BACKFILL MATERIAL SHALL BE GRANULAR IN NATURE AND SHALL NOT CONTAIN ROOTS, SOD, RUBBING, OR STONES OF 2-1/2 INCH MAXIMUM DIMENSION. BACKFILL SHALL BE CAREFULLY PLACED IN THE TRENCH AND IN 1 FOOT LAYERS AND EACH LAYER TAMPED. SETTLING THE BACKFILL WITH WATER WILL BE PERMITTED. THE SURFACE SHALL BE GRADED TO A REASONABLE UNIFORMITY AND THE MOUNDING OVER THE TRENCHES LEFT IN A UNIFORM AND NEAT CONDITION.

SYMBOL	DESCRIPTION
	CIRCUIT BREAKER
F	NON-FUSIBLE DISCONNECT SWITCH
F	FUSIBLE DISCONNECT SWITCH
	SURFACE MOUNTED PANEL BOARD
T	TRANSFORMER
M	KILOWATT HOUR METER
JB	JUNCTION BOX
PB	PULL BOX TO NEC/TELCO STANDARDS
	UNDERGROUND UTILITIES
	EXOTHERMIC WELD CONNECTION
	MECHANICAL CONNECTION
OR	GROUND ROD
OR	GROUND ROD WITH INSPECTION SLEEVE
	GROUND BAR
	120AC DUPLEX RECEPTACLE
G	GROUND CONDUCTOR
DC DC	DC POWER AND FIBER OPTIC TRUNK CABLES
C C	DC POWER CABLES
# / #	REPRESENTS DETAIL NUMBER / REF. DRAWING NUMBER

ABBREVIATIONS

CIGBE	COAX ISOLATED GROUND BAR EXTERNAL
MIGB	MASTER ISOLATED GROUND BAR
SST	SELF SUPPORTING TOWER
GPS	GLOBAL POSITIONING SYSTEM
TYP.	TYPICAL
DWG	DRAWING
BCW	BARE COPPER WIRE
BFG	BELOW FINISH GRADE
PVC	POLYVINYL CHLORIDE
CAB	CABINET
C	CONDUIT
SS	STAINLESS STEEL
G	GROUND
AWG	AMERICAN WIRE GAUGE
RGS	RIGID GALVANIZED STEEL
AHJ	AUTHORITY HAVING JURISDICTION
TTLNA	TOWER TOP LOW NOISE AMPLIFIER
UNO	UNLESS NOTED OTHERWISE
EMT	ELECTRICAL METALLIC TUBING
AGL	ABOVE GROUND LEVEL

INFINIGY
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

at&t

COMMONWEALTH OF MASSACHUSETTS
JOHN M. STEVENS
APR 03 2018
No. 49647
REGISTERED PROFESSIONAL ENGINEER

No.	Submittal / Revision	App'd	Date
3	REVISED PER SCOPE	BMM	04/03/18
1	ISSUED FOR PERMIT	MPS	12/08/17
0	ISSUED FOR REVIEW	BMM	11/22/17

Drawn: BMM Date: 11/22/17
Designed: ASW Date: 11/22/17
Checked: AJD Date: 11/22/17

Project Number: 499-006

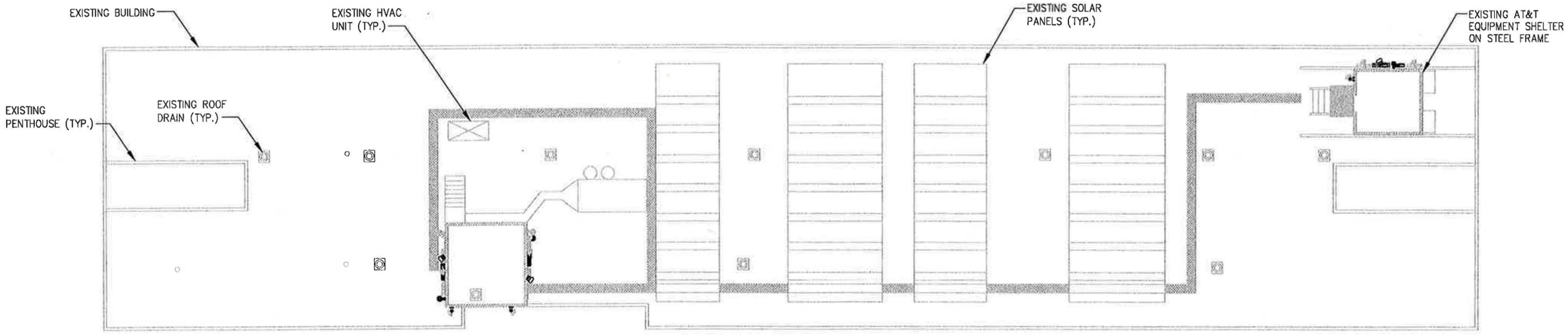
Project Title:
CAMBRIDGE
SHERMAN STREET
MAL02852
FA# 11585657
102 SHERMAN STREET
CAMBRIDGE, MA 02140

Prepared For: smartlink

Drawing Scale: AS NOTED
Date: 04/03/18
CD

Drawing Title
GENERAL NOTES

Drawing Number
C1



BASEMAPPING PREPARED FROM A SITE WALK PERFORMED BY INFINIGY ENGINEERING ON 09/21/17 AND PROVIDED INFORMATION, AND DOES NOT REPRESENT AN ACTUAL FIELD SURVEY.

TRUE NORTH

1 SITE PLAN
SCALE: AS NOTED

GRAPHIC SCALE:
20' 10' 0 10' 20'
SCALE (11x17): 1" = 20'-0"
SCALE (22x34): 1" = 10'-0"

INFINIGY
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

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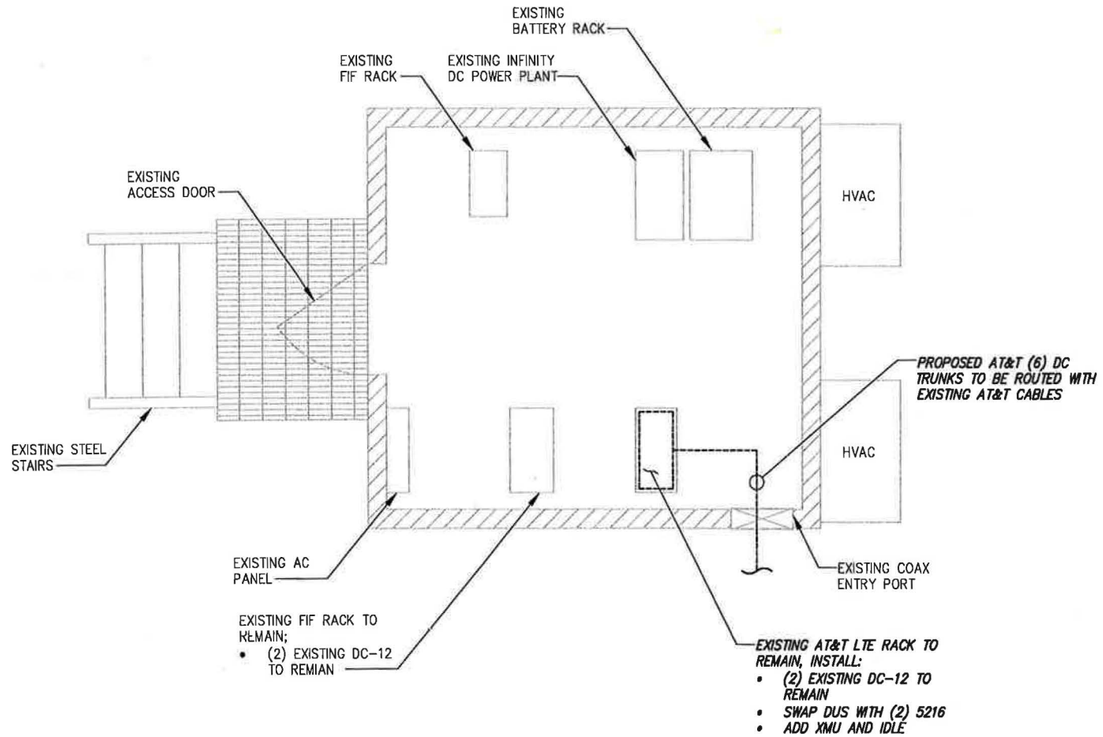
CD

Drawing Title
OVERALL SITE PLAN

Drawing Number
C2



TRUE NORTH

2 ENLARGED EQUIPMENT PLAN
SCALE: AS NOTED

GRAPHIC SCALE:

4' 2' 0 2' 4'

SCALE (11x17): 1" = 4'-0"
SCALE (22x34): 1" = 2'-0"

BASEMAPPING PREPARED FROM A SITE WALK PERFORMED BY INFINIGY ENGINEERING ON 09/21/17 AND PROVIDED INFORMATION, AND DOES NOT REPRESENT AN ACTUAL FIELD SURVEY.

INFINIGY
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

at&t

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FA# 11585657

102 SHERMAN STREET
CAMBRIDGE, MA 02140

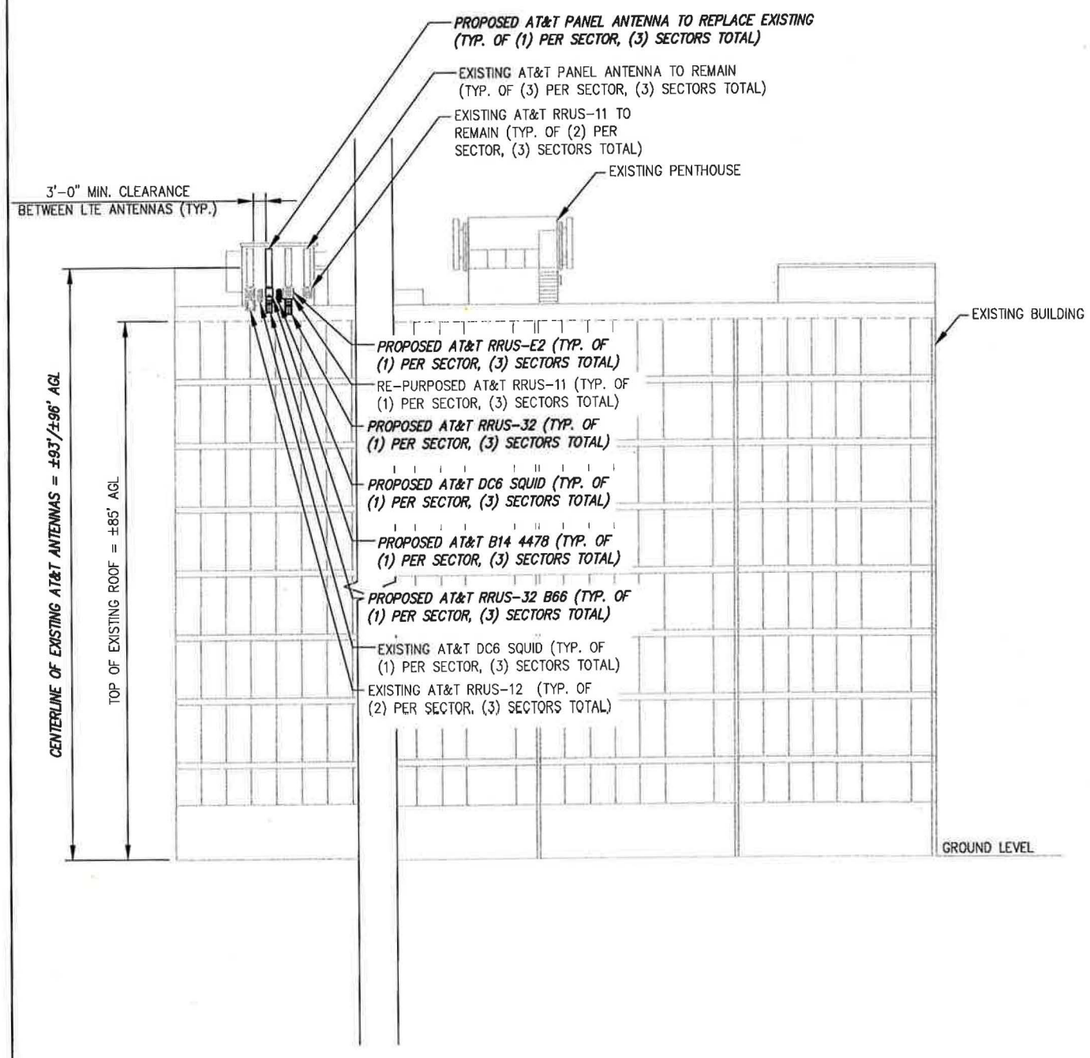
Prepared For: smartlink

Drawing Scale: AS NOTED
Date: 04/03/18
CD

Drawing Title
ENLARGED SITE PLAN

Drawing Number
C2A

NOTE:
- 3'-0" SEPARATION BETWEEN ALL LTE ANTENNAS
- 6'-0" SEPARATION BETWEEN 700 BC/700 DE ANTENNAS



1 ELEVATION VIEW
NOT TO SCALE

NOTE:
- BASED ON THE STRUCTURAL ANALYSIS COMPLETED BY INFINIGY, DATED 12/06/17. THE EXISTING ROOFTOP IS CAPABLE OF SUPPORTING THE PROPOSED EQUIPMENT CONFIGURATION.
- BASED ON THE MOUNT ANALYSIS COMPLETED BY INFINIGY, DATED 12/07/17. THE EXISTING ANTENNA MOUNTS ARE CAPABLE OF SUPPORTING THE PROPOSED EQUIPMENT CONFIGURATION.

FINAL ANTENNA CONFIGURATION & CABLE SCHEDULE BASED ON LTE RFDS DATED 03/28/18, V 3.00

SECTOR	ANTENNA POSITION	ANTENNA STATUS & TECHNOLOGY	ANTENNA MANF/MODEL	TMA/ DIPLEXER	RRUS	AZIMUTH	ANTENNA ℄ HEIGHT	CABLE FEEDER TYPE	CABLE FEEDER LENGTH	RAYCAP UNIT
ALPHA	A-1	(E) LTE 700/850/WCS	CCI HPA-65R-BUU-H8	*(1) KAELUS DBC0061F1V51-2 TWIN TMA*	*(P) RRUS-E2* (E) RRU-11 *(P) RRUS-32*	30°	±93'	(1) (E) FIBER CABLE (2) (E) DC CABLES	±50'	(1) (E) DC6 (1) (P) DC6
	A-2	(E) UMTS 850	CCI HPA-65R-BUU-H8	--	(E) RRUS-11	30°	±93'	SEE A-1 FOR CABLE INFORMATION	--	
	A-3	*(P) LTE 700/AWS*	*KATHREIN 800 10966*	--	*(P) B14 4478 (P) RRUS-32 B66*	*30°*	*±93'*	SEE A-2 FOR CABLE INFORMATION *(2) (P) DC CABLES*	*±50'**	
	A-4	(E) LTE 700/1900	CCI HPA-65R-BUU-H8	--	(2) (E) RRU-12 (E) RRU-11	30°	±93'	SEE A-1 FOR CABLE INFORMATION	--	
BETA	B-1	(E) LTE 700/850/WCS	CCI HPA-65R-BUU-H8	*(1) KAELUS DBC0061F1V51-2 TWIN TMA*	*(P) RRUS-E2* (E) RRU-11 *(P) RRUS-32*	190°	±96'	(1) (E) FIBER CABLE (2) (E) DC CABLES	±180'	(1) (E) DC6 (1) (P) DC6
	B-2	(E) UMTS 850	CCI HPA-65R-BUU-H8	--	(E) RRUS-11	190°	±96'	SEE B-1 FOR CABLE INFORMATION	--	
	B-3	*(P) LTE 700/AWS*	*KATHREIN 800 10966*	--	*(P) B14 4478 (P) RRUS-32 B66*	*190°*	*±96'*	SEE B-2 FOR CABLE INFORMATION *(2) (P) DC CABLES*	*±180'**	
	B-4	(E) LTE 700/1900	CCI HPA-65R-BUU-H8	--	(2) (F) RRU-12 (E) RRU-11	190°	±96'	SEE B-1 FOR CABLE INFORMATION	--	
GAMMA	G-1	(E) LTE 700/850/WCS	CCI HPA-65R-BUU-H8	*(1) KAELUS DBC0061F1V51-2 TWIN TMA*	*(P) RRUS-E2* (E) RRU-11 *(P) RRUS-32*	300°	±96'	(1) (E) FIBER CABLE (2) (E) DC CABLES	±200'	(1) (E) DC6 (1) (P) DC6
	G-2	(E) UMTS 850	CCI HPA-65R-BUU-H8	--	(E) RRUS-11	300°	±96'	SEE G-1 FOR CABLE INFORMATION	--	
	G-3	*(P) LTE 700/AWS*	*KATHREIN 800 10966*	--	*(P) B14 4478 (P) RRUS-32 B66*	*300°*	*±96'*	SEE G-2 FOR CABLE INFORMATION *(2) (P) DC CABLES*	*±200'**	
	G-4	(E) LTE 700/1900	CCI HPA-65R-BUU-H8	--	(2) (E) RRU-12 (E) RRU-11	300°	±96'	SEE G-1 FOR CABLE INFORMATION	--	

** CONTRACTOR TO VERIFY CABLE LENGTH PRIOR TO ORDERING*

2 AT&T ANTENNA SCHEDULE
NOT TO SCALE

INFINIGY
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

at&t

COMMONWEALTH OF MASSACHUSETTS
JOHN S. STEVENS
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APR 03 2018

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Drawn: BWM Date: 11/22/17
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Project Number: 499-006

Project Title:
CAMBRIDGE SHERMAN STREET
MAL02852
FA# 11585657
102 SHERMAN STREET
CAMBRIDGE, MA 02140

Prepared For: smartlink

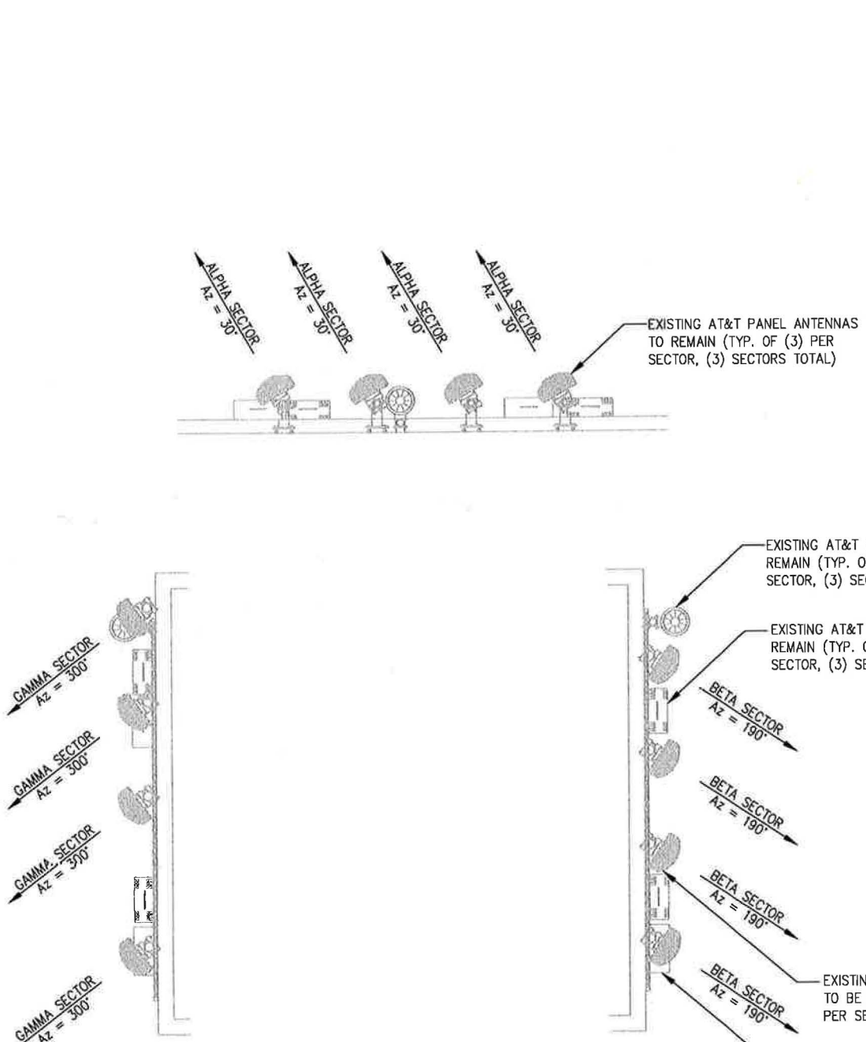
Drawing Scale: AS NOTED
Date: 04/03/18
CD

Drawing Title
ELEVATION VIEW

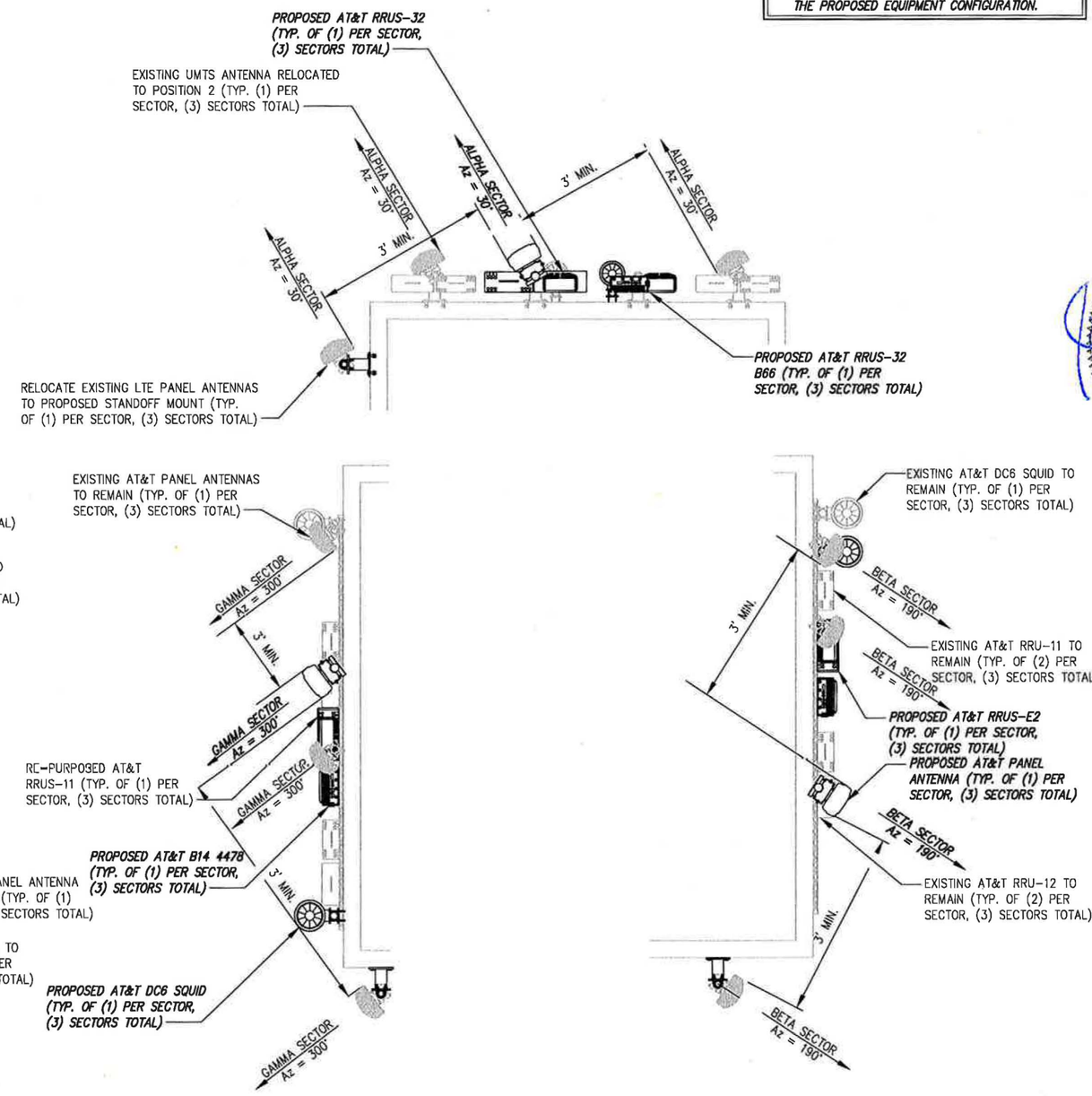
Drawing Number
C3

NOTE:
- 3'-0" SEPARATION BETWEEN ALL LTE ANTENNAS
- 6'-0" SEPARATION BETWEEN 700 BC/700 DE ANTENNAS

NOTE:
- *BASED ON THE STRUCTURAL ANALYSIS COMPLETED BY INFINIGY, DATED 12/06/17. THE EXISTING ROOFTOP IS CAPABLE OF SUPPORTING THE PROPOSED EQUIPMENT CONFIGURATION.*
- *BASED ON THE MOUNT ANALYSIS COMPLETED BY INFINIGY, DATED 12/07/17. THE EXISTING ANTENNA MOUNTS ARE CAPABLE OF SUPPORTING THE PROPOSED EQUIPMENT CONFIGURATION.*



1 EXISTING ANTENNA ORIENTATION PLAN
NOT TO SCALE



2 PROPOSED ANTENNA ORIENTATION PLAN
NOT TO SCALE

INFINIGY
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

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smartlink

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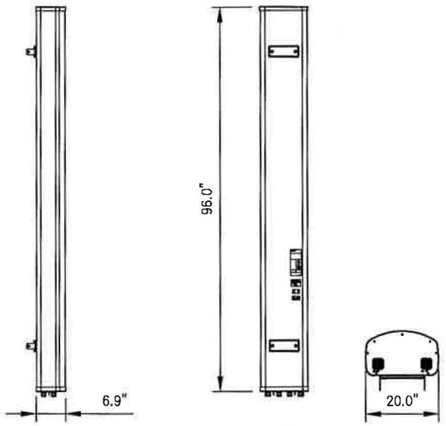
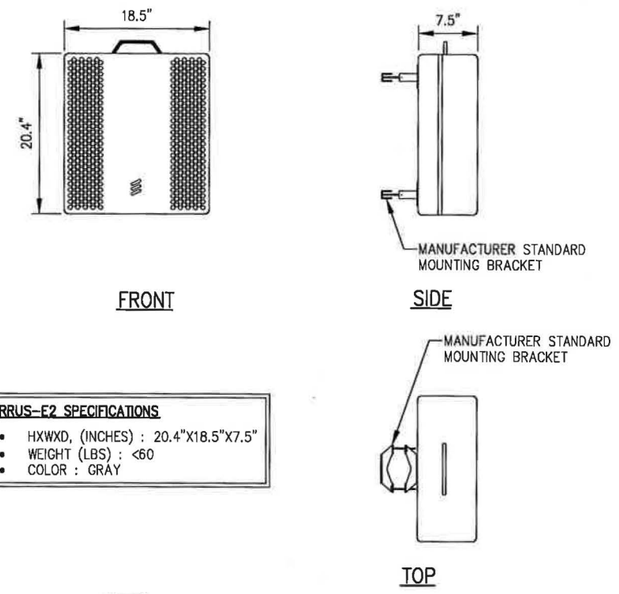
Drawing Title
ANTENNA ORIENTATION PLAN

Drawing Number
C4



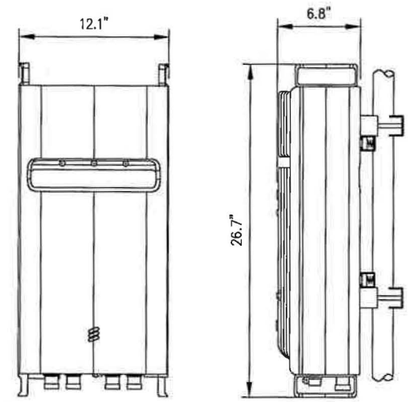
KATHREIN MODEL NO.:	800-10966
RADOME MATERIAL:	FIBERGLASS
RADOME COLOR:	LIGHT GRAY
DIMENSIONS, HxWxD:	(96.0"x20.0"x6.9")
WEIGHT, W/ PRE-MOUNTED BRACKETS:	114.6 LBS
CONNECTOR:	7-16 DIN FEMALE

1 ANTENNA DETAIL
NOT TO SCALE



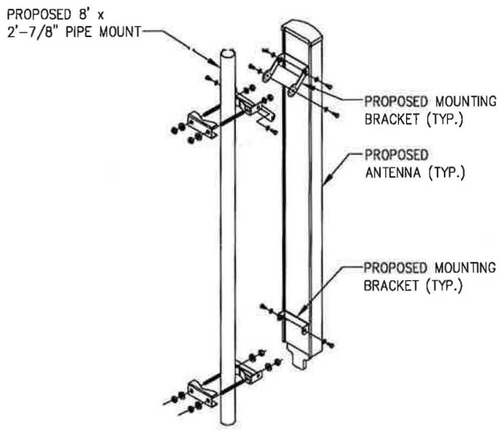
RRUS-E2 SPECIFICATIONS
- HXWXD, (INCHES) : 20.4"X18.5"X7.5"
- WEIGHT (LBS) : <60
- COLOR : GRAY

2 ERICSSON RRUS DETAIL
NOT TO SCALE

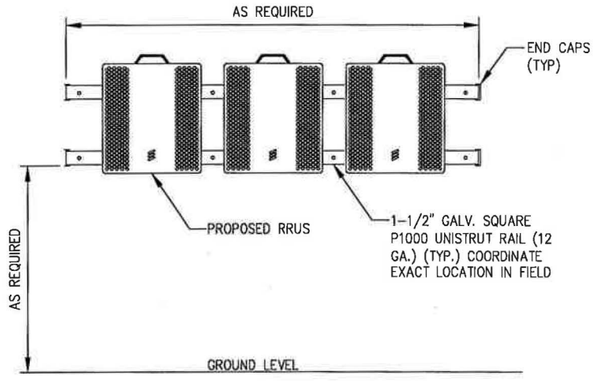


RRUS-32 SPECIFICATIONS
- HXWXD, (INCHES) : 26.7"X12.1"X6.8"
- WEIGHT (LBS) : 50.8
- COLOR : GRAY

3 ERICSSON RRUS-32 DETAIL
NOT TO SCALE



4 ANTENNA MOUNTING DETAIL
NOT TO SCALE



5 RRU MOUNTING DETAIL
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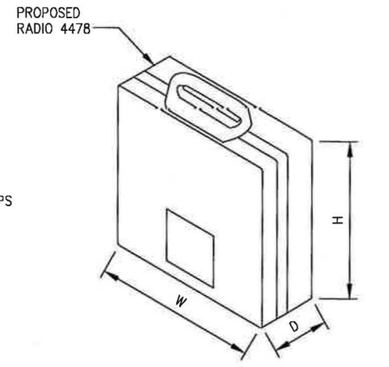
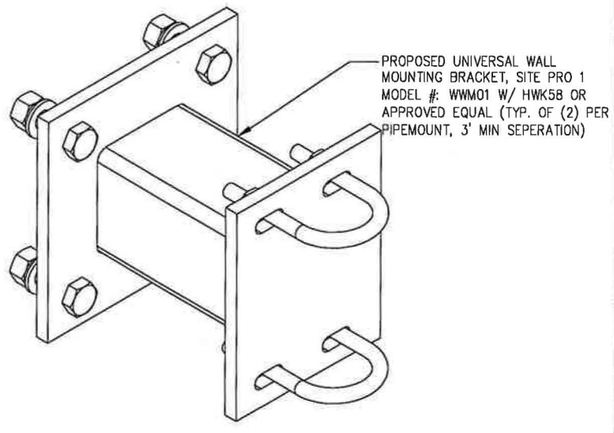


RADIO 4478 SPECIFICATIONS
- HXWXD, (INCHES) : TBD
- WEIGHT (LBS) : 59.5
- COLOR : GRAY

6 ERICSSON RADIO 4478 DETAIL
NOT TO SCALE



7 DETAIL NOT USED
NOT TO SCALE

INFINIGY
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

at&t

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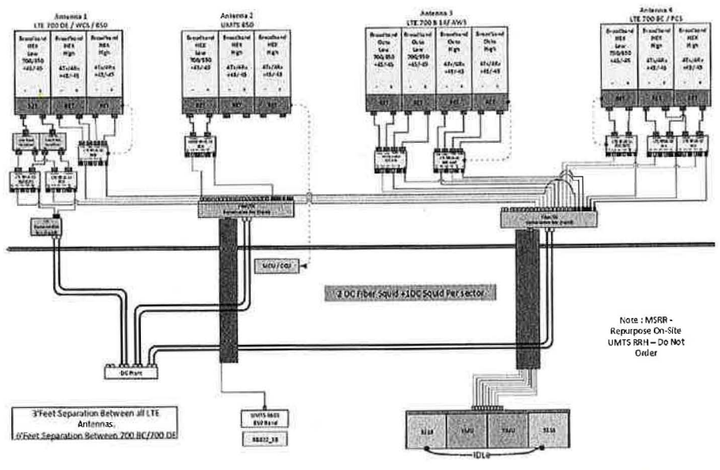
FA# 11585657
102 SHERMAN STREET
CAMBRIDGE, MA 02140

Prepared For: smartlink

Drawing Scale: AS NOTED
Date: 04/03/18
CD

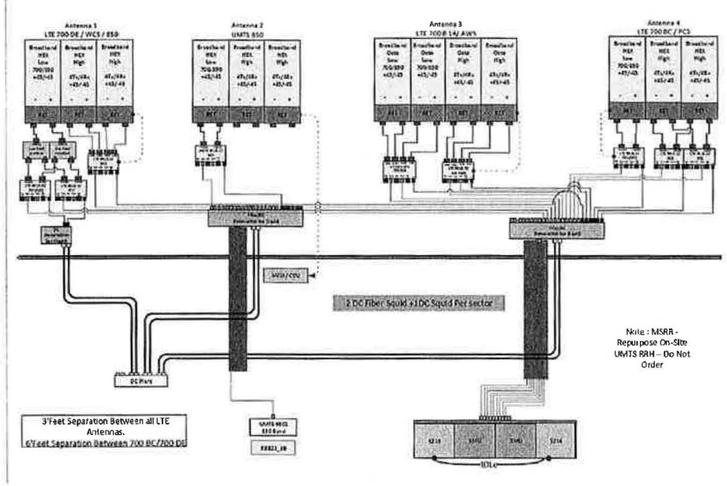
Drawing Title
EQUIPMENT DETAILS

Drawing Number
C5



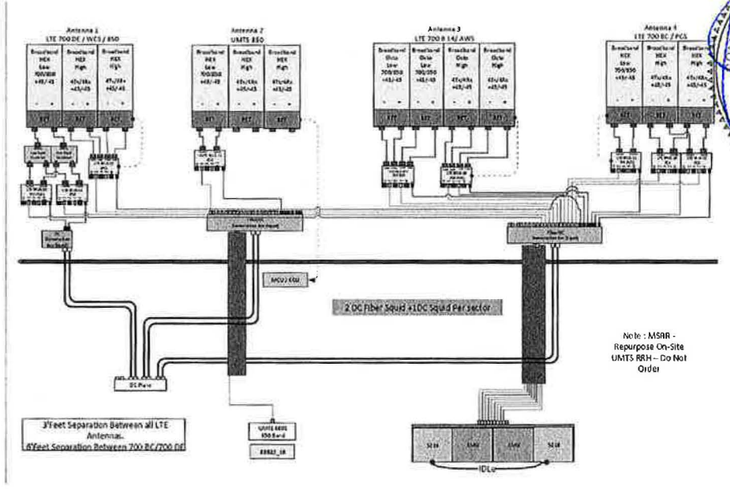
Note : MSRR - Repurpose On-Site UMTS RRH – Do Not Order

ALPHA SECTOR



Note : MSRR - Repurpose On-Site UMTS RRH – Do Not Order

BETA SECTOR



Note : MSRR - Repurpose On-Site UMTS RRH – Do Not Order

GAMMA SECTOR

1 PLUMBING DIAGRAM (FINAL CONFIGURATION)
NOT TO SCALE

*BASED ON LTE RFDS, DATED 03/28/2018, V3.00

INFINIGY
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

at&t

COMMONWEALTH OF MASSACHUSETTS
JOHN S. STEVENS
CIVIL
No. 49547
REGISTERED
APR 03 2018
PROFESSIONAL ENGINEER

No.	Submittal / Revision	Appd	Date
2	REVISED PER SCOPE	BWM	04/03/18
1	ISSUED FOR PERMIT	MPS	12/08/17
0	ISSUED FOR REVIEW	BWM	11/22/17

Drawn: BWM Date: 11/22/17
Designed: ASW Date: 11/22/17
Checked: AJD Date: 11/22/17

Project Number: 499-006

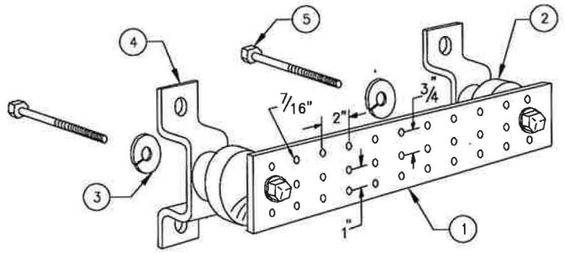
Project Title:
CAMBRIDGE
SHERMAN STREET
MAL02852
FA# 11585657
102 SHERMAN STREET
CAMBRIDGE, MA 02140

Prepared For: smartlink

Drawing Scale: AS NOTED
Date: 04/03/18
CD

Drawing Title
PLUMBING DIAGRAM

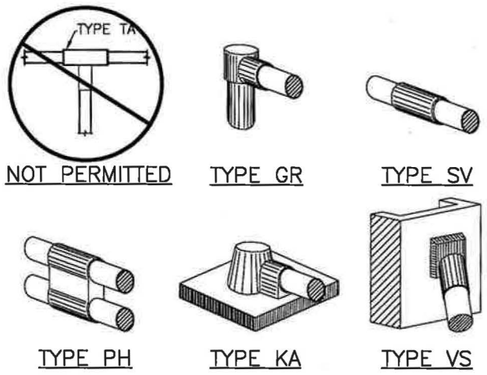
Drawing Number
C6



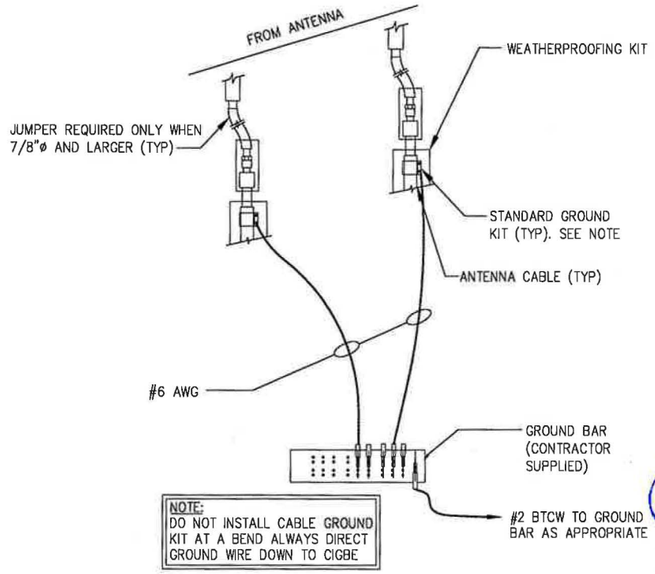
LEGEND

1 – SOLID TINNED COPPER GROUND BAR, 1/4"x 4"x 20" MIN., NEWTON INSTRUMENT CO. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION
2 – INSULATORS, NEWTON INSTRUMENT CAT. NO. 3061–4
3 – 5/8" LOCKWASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015–8
4 – WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT NO. A–6056
5 – 5/8–11 X 1" H.H.C.S. BOLTS, NEWTON INSTRUMENT CO. CAT NO. 3012–1
6 – GROUND BAR SHALL BE SIZED TO ACCOMODATE ALL GROUNDING CONNECTIONS REQUIRED PLUS PROVIDE 50% SPARE CAPACITY
7 – GROUND BARS SHALL NEITHER BE FIELD FABRICATED NOR NEW HOLES DRILLED
8 – GROUND LUGS SHALL MATCH THE HOLE SPACING ON THE BAR
9 – HARDWARE DIAMETER SHALL BE MINIMUM 3/8"

1 GROUND BAR
NOT TO SCALE



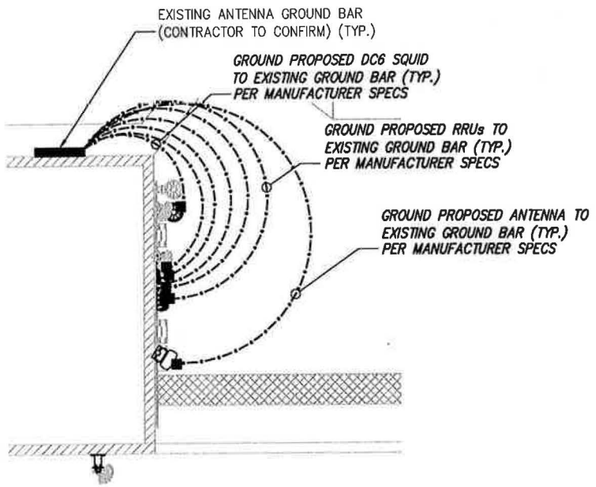
2 CADWELDS (TYPICAL)
NOT TO SCALE



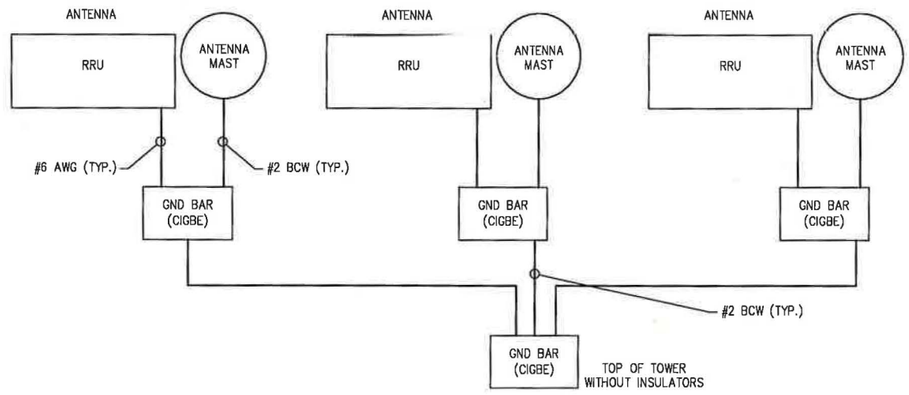
3 CONNECTION OF GROUND WIRES TO GROUNDING BARS @ ANTENNAS
NOT TO SCALE

GROUNDING SYMBOLS

■ COMPRESSION TYPE CONNECTION
● EXOTHERMIC WELD TYPE CONNECTION
—G— #2/0 BTS COPPER CONDUCTOR BURIED GROUND CABLE



4 GROUNDING DETAIL
NOT TO SCALE



5 SCHEMATIC DIAGRAM GROUNDING SYSTEM
NOT TO SCALE

INFINIGY
1033 Watervliet Shaker Rd
Albany, NY 12205
Office # (518) 690-0790
Fax # (518) 690-0793

at&t

COMMONWEALTH OF MASSACHUSETTS
JOHN S. STEVENS
No. 49647
REGISTERED PROFESSIONAL ENGINEER
APR 13 2018

No.	Submittal / Revision	App'd	Date
2	REVISED PER SCOPE	BMM	04/03/18
1	ISSUED FOR PERMIT	MPS	12/06/17
0	ISSUED FOR REVIEW	BMM	11/22/17

Drawn: BMM Date: 11/22/17
Designed: ASW Date: 11/22/17
Checked: AJD Date: 11/22/17

Project Number: 499-006

Project Title:
CAMBRIDGE
SHERMAN STREET
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FA# 11585657
102 SHERMAN STREET
CAMBRIDGE, MA 02140

Prepared For: smartlink

Drawing Scale: AS NOTED
Date: 04/03/18
CD

Drawing Title
GROUNDING DETAILS

Drawing Number
C7

8-Port Antenna	R1	R2	Y1	Y2
Frequency Range	698–960	698–960	1695–2690	1695–2690
Dual Polarization	X	X	X	X
HPBW	65°	65°	65°	65°
Adjust. Electr. DT	1°–10°	1°–10°	2.5°–12°	2.5°–12°

set by *FlexRET*

KATHREIN

AISG Antenna Interface Standards Group

8-Port Antenna 698–960/698–960/1695–2690/1695–2690 65°/65°/65°/65° 16.5/16.5/18/18dBi 1°–10°/1°–10°/2.5°–12°/2.5°–12°T

Type No.		80010966			
Left side, lowband		R1, connector 1–2			
		698–960			
Frequency Range	MHz	698 – 806	791 – 862	824 – 894	880 – 960
Gain at mid Tilt	dBi	15.7	16.1	16.4	16.5
Gain over all Tilts	dBi	15.6 ± 0.4	16.1 ± 0.3	16.3 ± 0.3	16.4 ± 0.3
Horizontal Pattern:					
Azimuth Beamwidth	°	66 ± 2.9	65 ± 2.3	65 ± 2.6	64 ± 2.9
Front-to-Back Ratio, Total Power, ± 30°	dB	> 23	> 23	> 24	> 25
Cross Polar Discrimination over Sector	dB	> 10.0	> 9.5	> 10.0	> 11.5
Vertical Pattern:					
Elevation Beamwidth	°	9.7 ± 0.7	9.0 ± 0.5	8.7 ± 0.5	8.3 ± 0.4
Electrical Downtilt continuously adjustable	°	1.0 – 10.0			
Tilt Accuracy	°	< 0.4	< 0.4	< 0.4	< 0.4
First Upper Side Lobe Suppression	dB	> 16	> 18	> 18	> 20
Cross Polar Isolation	dB	> 30			
Port to Port Isolation	dB	> 27 (R1 // R2) > 30 (R1 // Y1, Y2)			
Max. Effective Power per Port	W	400 (at 50 °C ambient temperature)			
Max. Effective Power Port 1–2	W	800 (at 50 °C ambient temperature)			

Values based on NGMN-P-BASTA (version 9.6) requirements.

936.5298/d.1 ngmn 04.25.02.01 Subject to alteration.

Kathrein USA Greenway Plaza II, 2400 Lakeside Blvd., Suite 650, Richardson TX 75082
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Right side, lowband		R2, connector 3–4			
		698–960			
Frequency Range	MHz	698 – 806	791 – 862	824 – 894	880 – 960
Gain at mid Tilt	dBi	15.5	16.0	16.3	16.6
Gain over all Tilts	dBi	15.5 ± 0.6	16.0 ± 0.5	16.3 ± 0.4	16.5 ± 0.4
Horizontal Pattern:					
Azimuth Beamwidth	°	67 ± 3.5	65 ± 2.6	64 ± 3.0	63 ± 4.3
Front-to-Back Ratio, Total Power, ± 30°	dB	> 22	> 23	> 24	> 26
Cross Polar Discrimination over Sector	dB	> 9.5	> 10.5	> 10.0	> 11.5
Vertical Pattern:					
Elevation Beamwidth	°	9.8 ± 0.6	9.0 ± 0.7	8.6 ± 0.4	8.1 ± 0.5
Electrical Downtilt continuously adjustable	°	1.0 – 10.0			
Tilt Accuracy	°	< 0.4	< 0.4	< 0.4	< 0.3
First Upper Side Lobe Suppression	dB	> 18	> 21	> 20	> 20
Cross Polar Isolation	dB	> 30			
Port to Port Isolation	dB	> 27 (R2 // R1) > 30 (R2 // Y1, Y2)			
Max. Effective Power per Port	W	400 (at 50 °C ambient temperature)			
Max. Effective Power Port 3–4	W	800 (at 50 °C ambient temperature)			

Values based on NGMN-P-BASTA (version 9.6) requirements.

Left side, highband		Y1, connector 5–6				
		1695–2690				
Frequency Range	MHz	1695 – 1880	1850 – 1990	1920 – 2180	2300 – 2400	2500 – 2690
Gain at mid Tilt	dBi	17.6	18.0	18.3	18.1	17.9
Gain over all Tilts	dBi	17.5 ± 0.4	17.9 ± 0.4	18.1 ± 0.5	18.0 ± 0.6	17.8 ± 0.6
Horizontal Pattern:						
Azimuth Beamwidth	°	64 ± 4.9	64 ± 5.0	62 ± 5.4	57 ± 5.7	61 ± 7.1
Front-to-Back Ratio, Total Power, ± 30°	dB	> 24	> 26	> 26	> 25	> 24
Cross Polar Discrimination over Sector	dB	> 8.5	> 11.5	> 10.0	> 7.5	> 9.0
Vertical Pattern:						
Elevation Beamwidth	°	6.4 ± 0.5	5.9 ± 0.3	5.5 ± 0.4	4.8 ± 0.3	4.4 ± 0.2
Electrical Downtilt continuously adjustable	°	2.5 – 12.0				
Tilt Accuracy	°	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
First Upper Side Lobe Suppression	dB	> 19	> 19	> 17	> 19	> 17
Cross Polar Isolation	dB	> 28				
Port to Port Isolation	dB	> 30 (Y1 // R1, R2, Y2)				
Max. Effective Power per Port	W	200 (at 50 °C ambient temperature)				
Max. Effective Power Port 5–6	W	400 (at 50 °C ambient temperature)				

Values based on NGMN-P-BASTA (version 9.6) requirements.

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Right side, highband		Y2, connector 7–8				
				1695–2690		
Frequency Range	MHz	1695 – 1880	1850 – 1990	1920 – 2180	2300 – 2400	2500 – 2690
Gain at mid Tilt	dBi	17.5	17.9	18.2	18.3	18.1
Gain over all Tilts	dBi	17.4 ± 0.5	17.8 ± 0.4	18.0 ± 0.6	18.2 ± 0.6	17.9 ± 0.6
Horizontal Pattern:						
Azimuth Beamwidth	°	66 ± 3.0	66 ± 5.5	63 ± 6.9	56 ± 7.1	57 ± 7.7
Front-to-Back Ratio, Total Power, ± 30°	dB	> 25	> 24	> 25	> 27	> 25
Cross Polar Discrimination over Sector	dB	> 9.5	> 11.0	> 10.0	> 9.5	> 10.5
Vertical Pattern:						
Elevation Beamwidth	°	6.4 ± 0.5	5.9 ± 0.3	5.6 ± 0.4	4.9 ± 0.4	4.4 ± 0.2
Electrical Downtilt continuously adjustable	°	2.5 – 12.0				
Tilt Accuracy	°	< 0.2	< 0.2	< 0.2	< 0.2	< 0.1
First Upper Side Lobe Suppression	dB	> 19	> 18	> 18	> 19	> 18
Cross Polar Isolation	dB	> 28				
Port to Port Isolation	dB	> 30 (Y2 // R1, R2, Y1)				
Max. Effective Power per Port	W	200 (at 50 °C ambient temperature)				
Max. Effective Power Port 7–8	W	400 (at 50 °C ambient temperature)				

Values based on NGMN-P-BASTA (version 9.6) requirements.

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Electrical specifications, all systems		
Impedance	Ω	50
VSWR		< 1.5
Return Loss	dB	> 14
Interband Isolation	dB	> 27
Passive Intermodulation	dBc	< –153 (2 x 43 dBm carrier)
Polarization	°	+45, –45
Max. Effective Power for the Antenna	W	1200 (at 50 °C ambient temperature)

Values based on NGMN-P-BASTA (version 9.6) requirements.

Mechanical specifications		
Input		8 x 4.3-10 female
Connector Position		bottom
Adjustment Mechanism		FlexRET, continuously adjustable
Wind load (at Rated Wind Speed: 150 km/h) (93 mph)	N | lbf	Frontal: 1400 | 315 Maximal: 1405 | 316
Max. Wind Velocity	km/h mph	241 150
Height / Width / Depth	mm inches	2438 / 508 / 175 96.0 / 20.0 / 6.9
Category of Mounting Hardware		XH (X-Heavy)
Weight	kg lb	52.0 / 57.0 (clamps incl.) 114.6 / 125.7 (clamps incl.)
Packing Size	mm inches	2635 / 542 / 268 103.7 / 21.3 / 10.6
Scope of Supply		Panel, FlexRET and clamps for 55–115 mm | 2.2–4.5 inches diameter

Accessories (order separately if required)

Type No.	Description	Remarks mm | inches	Weight approx. kg | lb	Units per antenna
85010097	2 clamps	Mast diameter: 110 – 220 | 4.3 – 8.7	9.4 | 20.7	1
85010099	1 downtilt kit	Downtilt angle: 0° – 10°	10.6 | 23.4	1
86010154	Site Sharing Adapter	3-way (see figure below)	0.7 | 1.5	
86010155	Site Sharing Adapter	6-way (see figure below)	1.4 | 3.1	
86010162	Gender Adapter	Solely to be used in combination with the FlexRET module 86010153V01	0.045 | 0.099	1
86010163	Port Extender		0.16 | 0.35	1

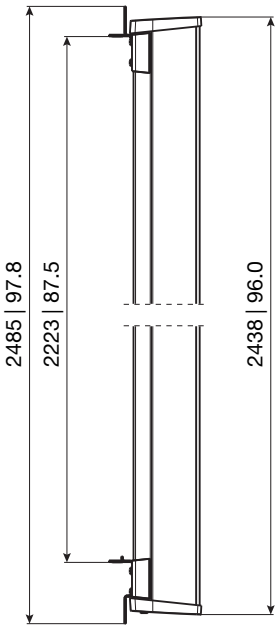
Accessories (included in the scope of supply)

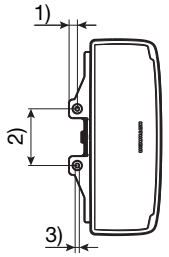
85010096	2 clamps	Mast diameter: 55 – 115 | 2.2 – 4.5	5.0 | 11.0	1
86010153V01	FlexRET			1

For downtilt mounting use the clamps for an appropriate mast diameter together with the downtilt kit.
Wall mounting: No additional mounting kit needed.

Material: **Reflector screen:** Aluminum.
Fiberglass housing: It covers totally the internal antenna components. The special design reduces the sealing areas to a minimum and guarantees the best weather protection. Fiberglass material guarantees optimum performance with regards to stability, stiffness, UV resistance and painting. The color of the radome is light grey.
All nuts and bolts: Stainless steel or hot-dip galvanized steel.

Grounding: The metal parts of the antenna including the mounting kit and the inner conductors are DC grounded.

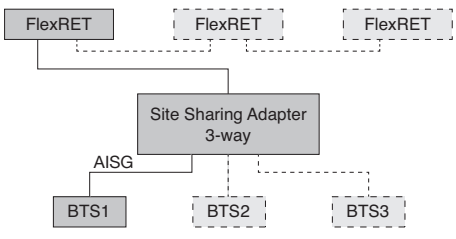




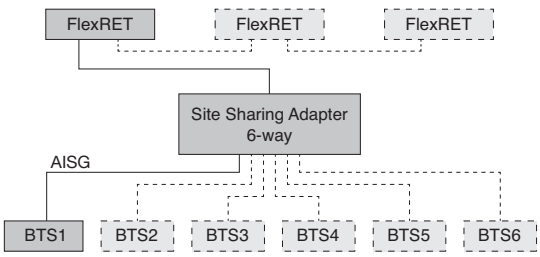
1) 22 | 0.9
2) 150 | 5.9
3) ∅ 11 | 0.4

All dimensions in mm | inches

Configuration example with Site Sharing Adapter 86010154



Configuration example with Site Sharing Adapter 86010155



For more information please refer to the respective data sheets.

936.5298/d.1 ngmn 04.25.02.01 Subject to alteration.

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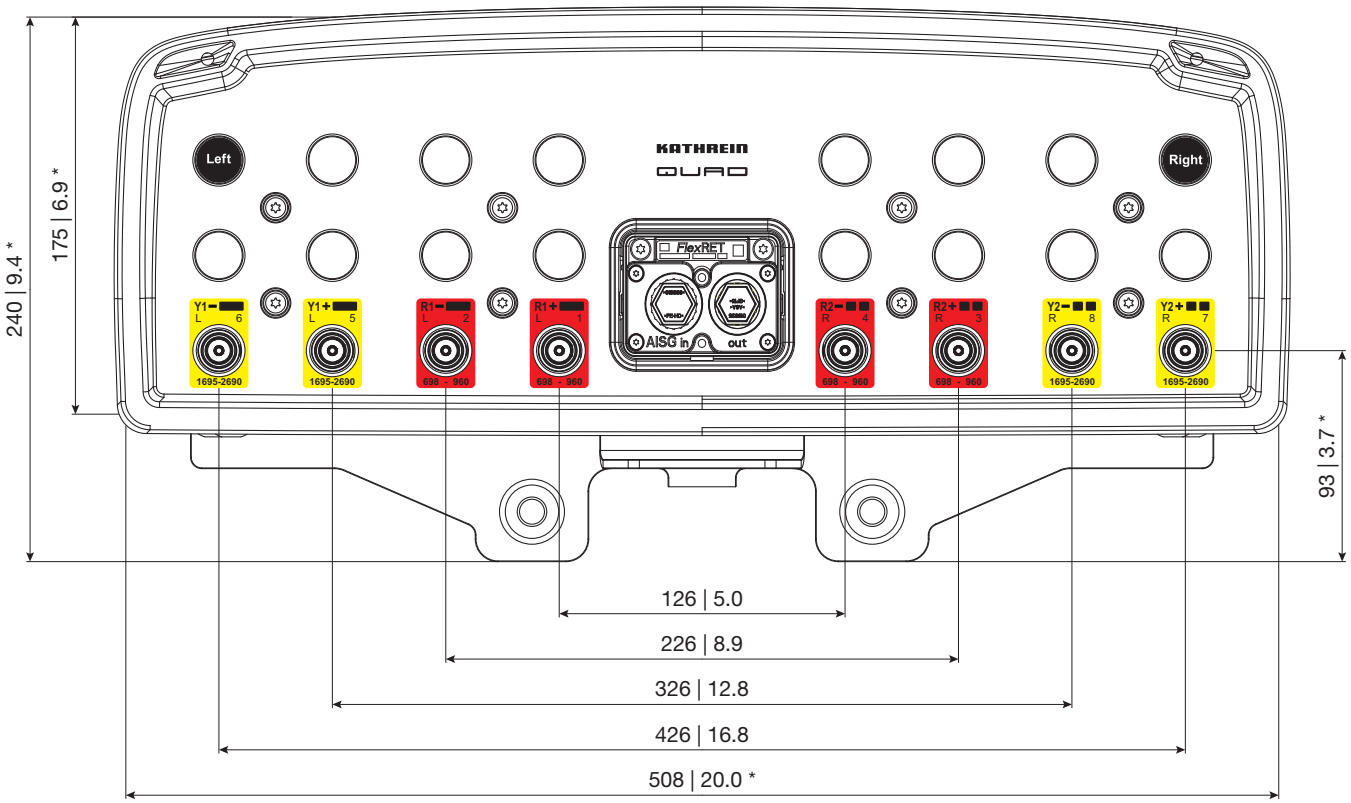
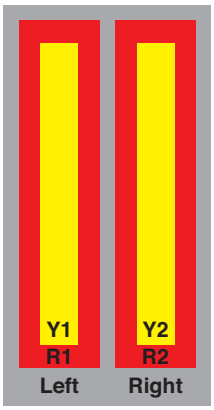
Layout of interface:



Bottom view
* Dimensions refer to radome
All dimensions in mm | inches

Correlation Table

Frequency range	Array	Connector
698–960 MHz	R1	1–2
698–960 MHz	R2	3–4
1695–2690 MHz	Y1	5–6
1695–2690 MHz	Y2	7–8



Order Information

Model	Description
80010966	8-Port antenna with mounting bracket
80010966K	8-Port antenna with mounting bracket and mechanical tilt bracket

936.5298/d.1 ngmn 04.25.02.01 Subject to alteration.

Kathrein USA Greenway Plaza II, 2400 Lakeside Blvd., Suite 650, Richardson TX 75082
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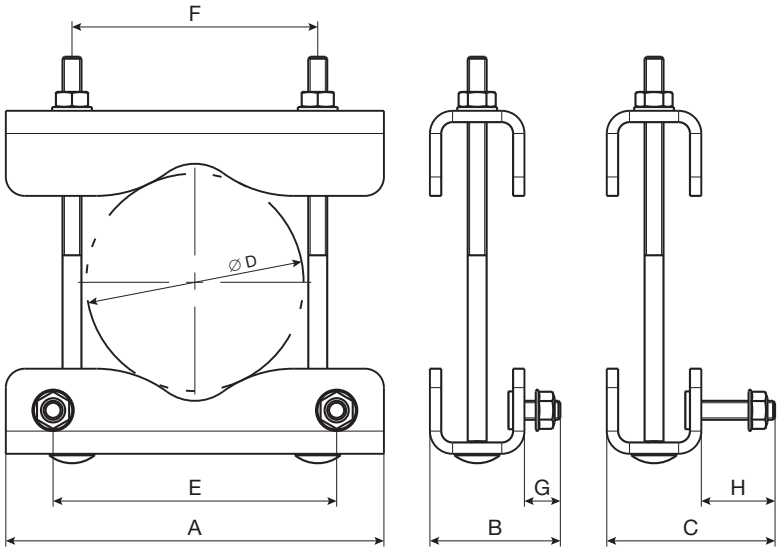
Mounting Hardware
Clamp
(Wind Load Category “XH”)

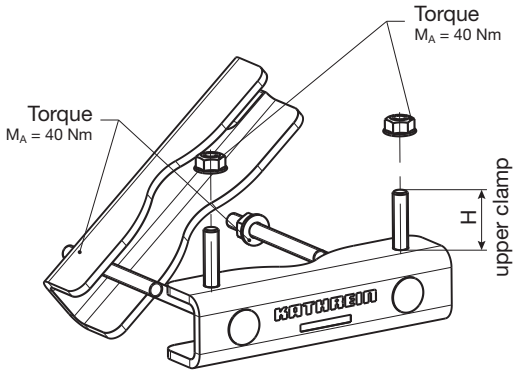
KATHREIN

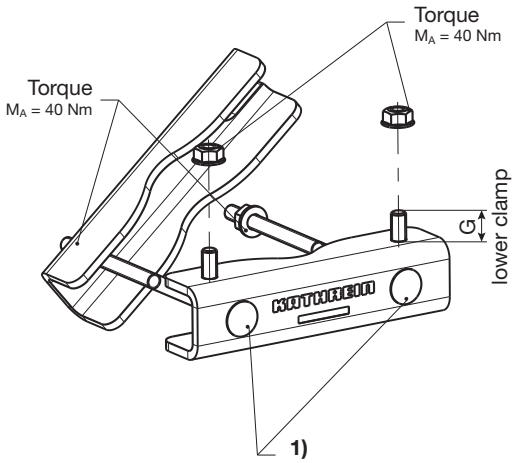
Clamp

Type No.		85010096
Suitable for mast diameter	mm inches	55 – 115 2.2 – 4.5
Scope of supply		1 x lower clamp 1 x upper clamp
Material – Clamp – Screws – Nuts		Hot-dip galvanized steel Hot-dip galvanized steel Stainless steel
Weight	kg lb	5.0 11.0



lower clamp upper clamp





1)
Attention!
Square of the screw must be positioned in the square hole before tightening the nut.

2)
All nuts have the same wrench size 17.

	A	B	C	D	E	F	G	H
mm	200	69	89	55 – 115	150	130	(19)	(39)
inches	7.9	2.7	3.5	2.2 – 4.5	5.9	5.1	(0.7)	(1.5)

Please note: Kathrein does not recommend to use counter nuts.

936.5063 Subject to alteration.

Kathrein USA Greenway Plaza II, 2400 Lakeside Blvd., Suite 650, Richardson TX 75082
Phone: 214.238.8800 Fax: 214.238.8801 Email: info@kathrein.com

A flexible, integrated solution for adjusting the electrical downtilt of Kathrein FlexRET antennas.

- Compliant to 3GPP/AISG 2.0
- Single RETs or Multi RET displayed
- Two way antenna sharing feasibility
- Daisy Chain feasibility
- Pre-configured

Type No.		86010153V01
Protocols		compliant to 3GPP/AISG 2.0
Logical interface ex factory		3GPP/AISG 2.0
Operates as		Single RETs or Multi RET
Ex factory		Single RETs
Input voltage range	V	10 ... 30 (pin 6)
Power consumption	W	Typically < 1; < 10 (motor activated)
Connectors		2 x 8 pin connector according to IEC 60130-9; according to AISG-C 485 Daisy chain in: male; Daisy chain out: female
Hardware interfaces		RS 485A/B (pin 5, pin 3); power supply (pin 6); DC return (pin 7); according to AISG / 3GPP
Adjustment time (full range)	sec	40 (typically, depending on antenna type)
Adjustment cycles		> 50,000
Temperature range	°C	–40 … +60
Protection class		IP 24 (installed)
Lightning protection		AISG interface (each pin) 2.5 kA (10/350 µs) 8 kA (8/20 µs) according to IEC 61000-4-5
Housing material		Profile: Aluminum anodized; cover: Aluminum die cast coated
Weight	g lb	350 0.77
Packing size (H x W x D)	mm inches	245 x 93 x 102 9.6 x 3.6 x 4
Dimensions (H x W x D)	mm inches	142 x 71 x 51 5.6 x 2.8 x 2

Please note:
If the Primary which controls the FlexRET system does not support the default ex-factory interface setting, then the FlexRET must be switched to the appropriate standard of the Primary before installation. Please contact Kathrein for further information.

If the FlexRET of an antenna has to be replaced, the FlexRET gets the information stored in the antenna after power on automatically. It is not necessary to configure the FlexRET manually.

Standards:
EN 60950-1 (Safety)
EN 60950-22 (Safety – Equipment installed outdoor)
EN 55022 (Emission)
EN 55024 (Immunity)
ETS 300019-1-4 (Environmental)
UL 60950-1; 1st edition

Certification: CE, FCC

Scope of supply: FlexRET

Optional:

Site Sharing Adapter (86010154 or 86010155) to create independent logical interfaces at one antenna or site. Makes it possible to operate with more than one independent Node B.

Gender Adapter (86010162) to convert the AISG out (female) to an AISG in (male) port in order to operate one FlexRet with exactly 2 BTS.
Detailed information is given in the data sheet of the Gender Adapter.

Port Extender (86010163) to convert the existing AISG input and output in order to operate FlexRet with exactly 2 BTS while maintaining the daisy chain capability.
Detailed information is given in the data sheet of the Port Extender.

Please note:
In general, the addressing of the FlexRET is automatically performed. Only in case the FlexRET is manually addressed, the serial number has to be extended by the corresponding colour coding extension (e.g. CSG351234-**R1**). The respective information can be found on the site documentation which is included in the scope of supply.

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Phone: 214.238.8800 Fax: 214.238.8801 Email: info@kathrein.com

Startup of FlexRET

The FlexRET module included in the antenna is preconfigured with the following information: Antenna model no., Antenna Serial no., Antenna configuration data. After connecting a control cable and scanning the antenna line devices (ALD) the used primary (e.g. NodeB, ALC, etc.) will find the FlexRET. You only need to insert your additional data.

Connecting the control cables:

Connect a control cable to the daisy chain input of the FlexRET. The tightening torque for fixing the connector must be 0.5 – 1.0 Nm ('hand-tightened').
The connector should be tightened by hand or by a special torque screw driver (order no. 85010080).
See also data sheet for Kathrein AISG-cable (86010007, ...).
Please note: To ensure the tightness of the RET System, Kathrein recommend the use of Kathrein components only.
Please note: If the daisy chain output is not used, do not remove the protection cap.

For daisy chain operation, remove the protection cap and attach a control cable to interconnect with the daisy chain input of the subsequent FlexRET or external RCU.
Please note: Do not remove the protection cap on the daisy chain output of the last FlexRET or RCU device.

936.5204 Subject to alteration.

Kathrein USA Greenway Plaza II, 2400 Lakeside Blvd., Suite 650, Richardson TX 75082
Phone: 214.238.8800 Fax: 214.238.8801 Email: info@kathrein.com

FCC – Statements

FCC § 15.19

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC § 15.105

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.

Canada CNR-Gen Section 7.1.3

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:(1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

ICES-003

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

FCC § 15.21 (Warning Statement)

[Any] changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Kathrein USA Greenway Plaza II, 2400 Lakeside Blvd., Suite 650, Richardson TX 75082
Phone: 214.238.8800 Fax: 214.238.8801 Email: info@kathrein.com

Compliance Information Statement (Declaration of Conformity Procedure)

Responsible Party: Kathrein USA

Address: Greenway Plaza II 2400 Lakeside Blvd. Suite 650
Richardson, Texas 75082

Telephone: (01+) 214.238.8800

Type of equipment:

Model Name: FlexRET
FCC ID SP3-86010153

936.5204 Subject to alteration.

Kathrein USA Greenway Plaza II, 2400 Lakeside Blvd., Suite 650, Richardson TX 75082
Phone: 214.238.8800 Fax: 214.238.8801 Email: info@kathrein.com

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Structural Analysis Report

January 2, 2018

Site Name	MAL02852
FA #	11585657
Infinigy Job Number	499-006
Client	Smartlink
Proposed Carrier	AT&T
PACE #:	MRCTB025645; MRCTB015346; MRCTB025696; MRCTB025686; MRCTB025668; MRCTB025683; MRCTB018952
PTN #:	2101A0DD4P; 2101A00EGH; 2101A0DD4M; 2101A0DD5L; 2101A0DD48; 2101A0DD6W; 2101A05XSE
Site Location	102 Sherman Street, Cambridge, MA 02140 42° 23' 20.508" N NAD83 -71° 7' 45.8112" W NAD83
Structure Type	Rooftop – Pipe Mount
Structural Usage Ratio	**41.6%**
Overall Result	**Pass**

Upon reviewing the results of this analysis, it is our opinion that the structure meets the specified TIA and ASCE code requirements. The antenna pipe mount and anchors are therefore deemed adequate to support the existing and proposed loading as listed in this report.

Edilberto Barrera, E.I.T.
Structural Engineer

Contents

Introduction

Infinigy Engineering has been requested to perform a structural analysis on the existing antenna supporting structures. All supporting documents have been obtained from the client and are assumed to be accurate and applicable to this site. The antenna mounts were analyzed using RISA 3D v. 16.0.1 software.

Supporting Documentation

Proposed Loading	AT&T RFDS, dated June 13, 2017
Construction Drawings	Construction Drawings by Infinigy Engineering, dated November 21, 2017

Analysis Code Requirements

Wind Speed	99 mph (3-Second Gust, V_{asd}) / 128 mph (3-Second Gust, V_{ult})
Wind Speed w/ ice	40mph (3-Second Gust) w/ ¾" ice
TIA Revision	ANSI/TIA-222-G
Adopted IBC	2015 IBC / 2017 Massachusetts State Building Code, 9th Ed.
Structure Class	II
Exposure Category	B
Topographic Category	1
Calculated Crest Height	0 ft.

Conclusion

Upon reviewing the results of this analysis, it is our opinion that the structure meets the specified TIA and ASCE code requirements. The antenna pipe mount and anchors are therefore deemed adequate to support the existing and proposed loading as listed in this report.

If you have any questions, require additional information, or actual conditions differ from those as detailed in this report please contact me via the information below:

Edilberto Barrera, E.I.T.
Structural Engineer I | Infinigy Engineering, PLLC
2500 West Higgins Road, Suite 500, Hoffman Estates, IL 60169
(O) (847) 648-4068 | (M) (224) 213-3819
ebarrera@infinigy.com | www.infinigy.com

Existing & Reserved Loading

Rad Center (ft)	Qty.	Appurtenance	Mount Type	Sector
93.0	4	CCI HPA-65R-BUU-H8	Pipe Mount	Alpha
	2	Ericsson RRUS 11		
	2	Ericsson RRUS 12		
	2	DC/Fiber Squid		
96.0	4	CCI HPA-65R-BUU-H8		Beta
	2	Ericsson RRUS 11		
	2	Ericsson RRUS 12		
	2	DC/Fiber Squid		
	4	CCI HPA-65R-BUU-H8		Gamma
	2	Ericsson RRUS 11		
	2	Ericsson RRUS 12		
	2	DC/Fiber Squid		

Proposed Loading

Rad Center (ft)	Qty.	Appurtenance	Mount Type	Sector
93.0	1	Kathrein 800-10966	Pipe Mount	Alpha
	1	Ericsson RRUS E2		
	1	Ericsson RRUS B14 4478		
	1	Ericsson RRUS 32 B66		
	1	Ericsson RRUS 32		
	1	Ericsson RRUS 11		
	1	DC Squid		
96.0	1	Kathrein 800-10966		Beta
	1	Kathrein 800-10965		
	1	Ericsson RRUS B14 4478		
	1	Ericsson RRUS 32 B66		
	1	Ericsson RRUS 11		
	1	DC Squid		
	1	Kathrein 800-10966		Gamma
	1	Kathrein 800-10965		
	1	Ericsson RRUS B14 4478		
	1	Ericsson RRUS 32 B66		
	1	Ericsson RRUS 11		
	1	DC Squid		

To Be Removed Loading

Rad Center (ft)	Qty.	Appurtenance	Mount Type	Sector
93.0	1	CCI HPA-65R-BUU-H8	--	Alpha
96.0	1	CCI HPA-65R-BUU-H8		Beta
	1	CCI HPA-65R-BUU-H8		Gamma

Final Loading Configuration

Rad Center (ft)	Qty.	Appurtenance	Mount Type	Sector
93.0	3	CCI HPA-65R-BUU-H8	Pipe Mount	Alpha
	1	Kathrein 800-10966		
	3	Ericsson RRUS 11		
	2	Ericsson RRUS 12		
	1	Ericsson RRUS E2		
	1	Ericsson RRUS B14 4478		
	1	Ericsson RRUS 32 B66		
	1	Ericsson RRUS 32		
	2	DC/Fiber Squid		
	1	DC Squid		
96.0	3	CCI HPA-65R-BUU-H8		Beta
	1	Kathrein 800-10966		
	3	Ericsson RRUS 11		
	2	Ericsson RRUS 12		
	1	Ericsson RRUS E2		
	1	Ericsson RRUS B14 4478		
	1	Ericsson RRUS 32 B66		
	1	Ericsson RRUS 32		
	2	DC/Fiber Squid		
	1	DC Squid		
	3	CCI HPA-65R-BUU-H8		Gamma
	1	Kathrein 800-10966		
	3	Ericsson RRUS 11		
	2	Ericsson RRUS 12		
	1	Ericsson RRUS E2		
	1	Ericsson RRUS B14 4478		
	1	Ericsson RRUS 32 B66		
	1	Ericsson RRUS 32		
	2	DC/Fiber Squid		
	1	DC Squid		

Structure Usages

Pipe Mount	41.6%	Pass
RATING=	**41.6%**	**PASS**

Mount Connection Reactions

Threaded Rods – Alpha Sector			
Reaction Data	Design Reactions	Analysis Reactions	Result
Shear (kip)	4.0	0.60	15.0%
Axial (kip)	7.5	0.50	6.7%

*Assuming (2) 3/8" Dia. A307 threaded rods per connection

Threaded Rods – Beta & Gamma Sector			
Reaction Data	Design Reactions	Analysis Reactions	Result
Shear (kip)	4.0	0.29	7.3%
Axial (kip)	7.5	0.32	4.3%

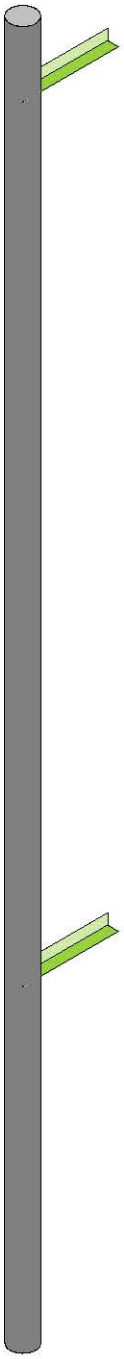
*Assuming (2) 3/8" Dia. A307 threaded rods per connection

Assumptions and Limitations

Our structural calculations are completed assuming all information provided to Infinigy Engineering is accurate and applicable to this site. For the purposes of calculations, we assume an overall structure condition of "like new" and all members, connections, anchors, and masonry to be free of corrosion and/or structural defects. The structure owner and/or contractor shall verify the structure's condition prior to installation of any proposed equipment. If actual conditions differ from those described in this report Infinigy Engineering should be notified immediately to complete a revised evaluation.

Our evaluation is completed using standard TIA, AISC, ACI, and ASCE methods and procedures. Our structural results are proprietary and should not be used by others as their own. Infinigy Engineering is not responsible for decisions made by others that are or are not based on our supplied assumptions and conclusions.

This report is an evaluation of the rooftop mounted equipment and/or antenna supporting structures to be proposed or modified as shown in the referenced construction drawings. Applicable building element adequacy to support these structures is also evaluated when the applied forces increase significantly based on engineering judgment.



Envelope Only Solution

Infinigy Engineering PLLC	MAL02852 - ALPHA	Existing Configuration
EB		Dec 6, 2017 at 3:11 PM
499-006		MAL02852.r3d

Site Name:	MAL2852
Client:	Smartlink
Carrier:	AT&T
Engineer:	EB
Date:	1/2/2018

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INFINIGY WIND LOAD CALCULATOR 3.0.2

Site Information Inputs:

Adopted Building Code:	2015 IBC
Structure Load Standard:	TIA-222-G
Antenna Load Standard:	TIA-222-G
Structure Risk Category:	II
Structure Type:	Rooftop
Number of Sectors:	3
Structure Shape 1:	Round

Rooftop Inputs:

Rooftop Wind Speed-Up?:	No

Wind Loading Inputs:

Design Wind Velocity:	95	mph (nominal 3-second gust)
Wind Centerline 1 (z_1):	93.0	ft
Side Face Angle (θ):	60	degrees
Exposure Category:	C	
Topographic Category:	1	

Wind with No Ice		
q_z (psf)	Gh	F_{ST} (psf)
24.48	0.85	**24.97**

Wind with Ice		
q_z (psf)	Gh	F_{ST} (psf)
4.34	0.85	**10.56**

Ice Loading Inputs:

Is Ice Loading Needed?:	Yes	
Ice Wind Velocity:	40	mph (nominal 3-second gust)
Base Ice Thickness:	0.75	in

Input Appurtenance Information and Load Placements:

Appurtenance Name	Elevation (ft)	Total Quantity	Ka	Front Shape	Side Shape	q_z (psf)	EPA (ft^2)	Fz (lbs)	Fx (lbs)	Fz(60) (lbs)	Fx(30) (lbs)
CCI HPA-65R-BUU-H8	93.0	9	1.00	Flat	Flat	24.48	12.76	265.55	155.67	183.14	238.08
Kathrein 800-10966	93.0	3	1.00	Flat	Flat	24.48	17.36	361.26	156.05	207.35	309.95
Ericsson B14 4478	93.0	3	1.00	Flat	Flat	24.48	2.41	50.14	26.13	32.13	44.14
Ericsson RRUS-11	93.0	9	1.00	Flat	Flat	24.48	2.78	57.93	24.70	33.01	49.63
Ericsson RRUS-32	93.0	3	1.00	Flat	Flat	24.48	2.74	57.06	34.71	40.30	51.48
Ericsson RRUS 32	93.0	3	1.00	Flat	Flat	24.48	2.74	57.06	34.71	40.30	51.48
Ericsson RRUS-12	93.0	6	1.00	Flat	Flat	24.48	3.14	65.40	26.28	36.06	55.62
Raycap DC6-48-60-18-8F	93.0	9	1.00	Round	Round	24.48	1.21	25.21	25.21	25.21	25.21
Ericsson RRUS E2	93.0	3	1.00	Flat	Flat	24.48	3.15	65.44	26.74	36.42	55.76

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	MP1	N1	N2			Pipe Mount	Beam	None	A53 Gr.B	Typical
2	M2	N3	N5			RIGID	None	None	RIGID	Typical
3	M3	N4	N6			RIGID	None	None	RIGID	Typical

Material Takeoff

	Material	Size	Pieces	Length[in]	Weight[LB]
1	General				
2	RIGID		2	16	0
3	Total General		2	16	0
4					
5	Hot Rolled Steel				
6	A53 Gr.B	PIPE_2.0	1	108	31.2
7	Total HR Steel		1	108	31.2

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(M...	Surface...
1	Self Weight	DL		-1			4			
2	Wind Load AZI 000	WLZ					4		1	
3	Wind Load AZI 090	WLX					4		1	
4	Ice Weight	OL1					4	3		
5	Wind + Ice Load AZI 000	OL2					4		1	
6	Wind + Ice Load AZI 090	OL3					4		1	
7	Service Live 1	LL								
8	BLC 2 Transient Area Loa...	None						1		
9	BLC 3 Transient Area Loa...	None						3		
10	BLC 5 Transient Area Loa...	None						1		
11	BLC 6 Transient Area Loa...	None						3		

Load Combinations

	Description	S...	P...	S...	BLC	Factor	BLC	Factor	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.4D	Yes	Y		DL	1.4																		
2	1.2D + 1.6W AZI 000	Yes	Y		DL	1.2	WLZ	1.6																
3	1.2D + 1.6W AZI 030	Yes	Y		DL	1.2	WLZ	1.386	WLX	.8														
4	1.2D + 1.6W AZI 060	Yes	Y		DL	1.2	WLZ	.8	WLX	1.3...														
5	1.2D + 1.6W AZI 090	Yes	Y		DL	1.2			WLX	1.6														
6	1.2D + 1.6W AZI 120	Yes	Y		DL	1.2	WLZ	-.8	WLX	1.3...														
7	1.2D + 1.6W AZI 150	Yes	Y		DL	1.2	WLZ	-1.386	WLX	.8														
8	1.2D + 1.6W AZI 180	Yes	Y		DL	1.2	WLZ	-1.6																
9	1.2D + 1.6W AZI 210	Yes	Y		DL	1.2	WLZ	-1.386	WLX	-.8														
10	1.2D + 1.6W AZI 240	Yes	Y		DL	1.2	WLZ	-.8	WLX	-1....														
11	1.2D + 1.6W AZI 270	Yes	Y		DL	1.2			WLX	-1.6														
12	1.2D + 1.6W AZI 300	Yes	Y		DL	1.2	WLZ	.8	WLX	-1....														
13	1.2D + 1.6W AZI 330	Yes	Y		DL	1.2	WLZ	1.386	WLX	-.8														
14	0.9D + 1.6W AZI 000	Yes	Y		DL	.9	WLZ	1.6																
15	0.9D + 1.6W AZI 030	Yes	Y		DL	.9	WLZ	1.386	WLX	.8														
16	0.9D + 1.6W AZI 060	Yes	Y		DL	.9	WLZ	.8	WLX	1.3...														

Load Combinations (Continued)

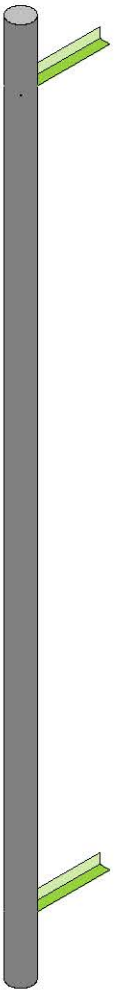
	Description	S...	P...	S...	BLC	Factor	BLC	Factor	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
17	0.9D + 1.6W AZI 090	Yes	Y		DL	.9			WLX	1.6														
18	0.9D + 1.6W AZI 120	Yes	Y		DL	.9	WLZ	-.8	WLX	1.3...														
19	0.9D + 1.6W AZI 150	Yes	Y		DL	.9	WLZ	-1.386	WLX	.8														
20	0.9D + 1.6W AZI 180	Yes	Y		DL	.9	WLZ	-1.6																
21	0.9D + 1.6W AZI 210	Yes	Y		DL	.9	WLZ	-1.386	WLX	-.8														
22	0.9D + 1.6W AZI 240	Yes	Y		DL	.9	WLZ	-.8	WLX	-1....														
23	0.9D + 1.6W AZI 270	Yes	Y		DL	.9			WLX	-1.6														
24	0.9D + 1.6W AZI 300	Yes	Y		DL	.9	WLZ	.8	WLX	-1....														
25	0.9D + 1.6W AZI 330	Yes	Y		DL	.9	WLZ	1.386	WLX	-.8														
26	1.2D + 1.0Di	Yes	Y		DL	1.2	OL1	1																
27	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1	OL2	1														
28	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1	OL2	.866	O...	.5												
29	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1	OL2	.5	O...	.866												
30	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1			O...	1												
31	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1	OL2	-.5	O...	.866												
32	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1	OL2	-.8...	O...	.5												
33	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1	OL2	-1														
34	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1	OL2	-.8...	O...	-.5												
35	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1	OL2	-.5	O...	-.8...												
36	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1			O...	-1												
37	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1	OL2	.5	O...	-.8...												
38	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1	OL2	.866	O...	-.5												
39	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5	WLZ	.082														
40	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5	WLZ	.071	W...	.041												
41	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5	WLZ	.041	W...	.071												
42	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5			W...	.082												
43	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5	WLZ	-.0...	W...	.071												
44	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5	WLZ	-.0...	W...	.041												
45	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5	WLZ	-.0...														
46	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5	WLZ	-.0...	W...	-.0...												
47	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5	WLZ	-.0...	W...	-.0...												
48	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5			W...	-.0...												
49	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5	WLZ	.041	W...	-.0...												
50	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5	WLZ	.071	W...	-.0...												

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	N5	max	163.301	5	284.678	27	341.589	14	92.366	14	108.868	5	45.008	11
2		min	-163.301	11	62.683	20	-341.589	8	-201.777	33	-108.868	11	-45.008	5
3	N6	max	284.861	17	604.428	33	543.709	2	665.044	20	189.907	17	380.01	17
4		min	-284.861	23	174.231	14	-543.709	20	-935.726	2	-189.907	23	-380.01	23
5	Totals:	max	448.162	17	889.106	31	885.298	2						
6		min	-448.162	23	236.914	18	-885.298	20						

Envelope AISC 14th(360-10): LRFD Steel Code Checks

	Member	Shape	Code Check	Loc[in]	LC	Shear C...	Loc[in]	Dir	LC	phi*Pnc [l...	phi*P...	phi*M...	phi*M.....	Eqn
1	MP1	PIPE_2.0	.416	29.25	8	.054	29.25		20	12143.947	32130	1871...	1871...	1	H1-1b



Envelope Only Solution

Infinigy Engineering PLLC	MAL02852 - BETA & GAMMA	Existing Configuration
EB		Dec 6, 2017 at 3:26 PM
499-006		MAL02852_beta-gamma.r3d

Site Name:	MAL2852
Client:	Smartlink
Carrier:	AT&T
Engineer:	EB
Date:	12/7/2017

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FROM ZERO TO INFINIGY
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INFINIGY WIND LOAD CALCULATOR 3.0.2

Site Information Inputs:

Adopted Building Code:	2015 IBC
Structure Load Standard:	TIA-222-G
Antenna Load Standard:	TIA-222-G
Structure Risk Category:	II
Structure Type:	Rooftop
Number of Sectors:	3
Structure Shape 1:	Round

Rooftop Inputs:

Rooftop Wind Speed-Up?:	No

Wind Loading Inputs:

Design Wind Velocity:	99	mph (nominal 3-second gust)
Wind Centerline 1 (z_1):	96.0	ft
Side Face Angle (θ):	60	degrees
Exposure Category:	C	
Topographic Category:	1	

Wind with No Ice		
q_z (psf)	Gh	F_{ST} (psf)
26.76	0.85	**27.30**

Wind with Ice		
q_z (psf)	Gh	F_{ST} (psf)
4.37	0.85	**10.65**

Ice Loading Inputs:

Is Ice Loading Needed?:	Yes	
Ice Wind Velocity:	40	mph (nominal 3-second gust)
Base Ice Thickness:	0.75	in

Input Appurtenance Information and Load Placements:

Appurtenance Name	Elevation (ft)	Total Quantity	Ka	Front Shape	Side Shape	q_z (psf)	EPA (ft^2)	Fz (lbs)	Fx (lbs)	Fz(60) (lbs)	Fx(30) (lbs)
CCI HPA-65R-BUU-H8	96.0	9	1.00	Flat	Flat	26.76	12.76	290.31	170.19	200.22	260.28
Kathrein 800-10966	96.0	3	1.00	Flat	Flat	26.76	17.36	394.95	170.60	226.69	338.86
Ericsson B14 4478	96.0	3	1.00	Flat	Flat	26.76	2.41	54.81	28.57	35.13	48.25
Ericsson RRUS-11	96.0	9	1.00	Flat	Flat	26.76	2.78	63.34	27.00	36.09	54.25
Ericsson RRUS-32	96.0	3	1.00	Flat	Flat	26.76	2.74	62.39	37.94	44.05	56.28
Ericsson RRUS 32	96.0	3	1.00	Flat	Flat	26.76	2.74	62.39	37.94	44.05	56.28
Ericsson RRUS-12	96.0	3	1.00	Flat	Flat	26.76	3.14	71.50	28.73	39.42	60.81
Raycap DC6-48-60-18-8F	96.0	3	1.00	Round	Round	26.76	1.21	27.56	27.56	27.56	27.56

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	MP1	N1	N2			Pipe Mount	Beam	None	A53 Gr.B	Typical
2	M2	N3	N5			RIGID	None	None	RIGID	Typical
3	M3	N4	N6			RIGID	None	None	RIGID	Typical

Material Takeoff

	Material	Size	Pieces	Length[in]	Weight[LB]
1	General				
2	RIGID		2	16	0
3	Total General		2	16	0
4					
5	Hot Rolled Steel				
6	A53 Gr.B	PIPE_2.0	1	84	24.3
7	Total HR Steel		1	84	24.3

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(M...	Surface...
1	Self Weight	DL		-1			2			
2	Wind Load AZI 000	WLZ					2		1	
3	Wind Load AZI 090	WLX					2		1	
4	Ice Weight	OL1					2	3		
5	Wind + Ice Load AZI 000	OL2					2		1	
6	Wind + Ice Load AZI 090	OL3					2		1	
7	Service Live 1	LL								
8	BLC 2 Transient Area Loa...	None						1		
9	BLC 3 Transient Area Loa...	None						3		
10	BLC 5 Transient Area Loa...	None						1		
11	BLC 6 Transient Area Loa...	None						3		

Load Combinations

	Description	S...	P...	S...	BLC	Factor	BLC	Factor	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.4D	Yes	Y		DL	1.4																		
2	1.2D + 1.6W AZI 000	Yes	Y		DL	1.2	WLZ	1.6																
3	1.2D + 1.6W AZI 030	Yes	Y		DL	1.2	WLZ	1.386	WLX	.8														
4	1.2D + 1.6W AZI 060	Yes	Y		DL	1.2	WLZ	.8	WLX	1.3...														
5	1.2D + 1.6W AZI 090	Yes	Y		DL	1.2			WLX	1.6														
6	1.2D + 1.6W AZI 120	Yes	Y		DL	1.2	WLZ	-.8	WLX	1.3...														
7	1.2D + 1.6W AZI 150	Yes	Y		DL	1.2	WLZ	-1.386	WLX	.8														
8	1.2D + 1.6W AZI 180	Yes	Y		DL	1.2	WLZ	-1.6																
9	1.2D + 1.6W AZI 210	Yes	Y		DL	1.2	WLZ	-1.386	WLX	-.8														
10	1.2D + 1.6W AZI 240	Yes	Y		DL	1.2	WLZ	-.8	WLX	-1....														
11	1.2D + 1.6W AZI 270	Yes	Y		DL	1.2			WLX	-1.6														
12	1.2D + 1.6W AZI 300	Yes	Y		DL	1.2	WLZ	.8	WLX	-1....														
13	1.2D + 1.6W AZI 330	Yes	Y		DL	1.2	WLZ	1.386	WLX	-.8														
14	0.9D + 1.6W AZI 000	Yes	Y		DL	.9	WLZ	1.6																
15	0.9D + 1.6W AZI 030	Yes	Y		DL	.9	WLZ	1.386	WLX	.8														
16	0.9D + 1.6W AZI 060	Yes	Y		DL	.9	WLZ	.8	WLX	1.3...														

Load Combinations (Continued)

	Description	S...	P...	S...	BLC	Factor	BLC	Factor	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
17	0.9D + 1.6W AZI 090	Yes	Y		DL	.9			WLX	1.6														
18	0.9D + 1.6W AZI 120	Yes	Y		DL	.9	WLZ	-.8	WLX	1.3...														
19	0.9D + 1.6W AZI 150	Yes	Y		DL	.9	WLZ	-1.386	WLX	.8														
20	0.9D + 1.6W AZI 180	Yes	Y		DL	.9	WLZ	-1.6																
21	0.9D + 1.6W AZI 210	Yes	Y		DL	.9	WLZ	-1.386	WLX	-.8														
22	0.9D + 1.6W AZI 240	Yes	Y		DL	.9	WLZ	-.8	WLX	-1....														
23	0.9D + 1.6W AZI 270	Yes	Y		DL	.9			WLX	-1.6														
24	0.9D + 1.6W AZI 300	Yes	Y		DL	.9	WLZ	.8	WLX	-1....														
25	0.9D + 1.6W AZI 330	Yes	Y		DL	.9	WLZ	1.386	WLX	-.8														
26	1.2D + 1.0Di	Yes	Y		DL	1.2	OL1	1																
27	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1	OL2	1														
28	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1	OL2	.866	O...	.5												
29	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1	OL2	.5	O...	.866												
30	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1			O...	1												
31	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1	OL2	-.5	O...	.866												
32	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1	OL2	-.8...	O...	.5												
33	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1	OL2	-1														
34	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1	OL2	-.8...	O...	-.5												
35	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1	OL2	-.5	O...	-.8...												
36	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1			O...	-1												
37	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1	OL2	.5	O...	-.8...												
38	1.2D + 1.0Di + 1.0WiAZ..	Yes	Y		DL	1.2	OL1	1	OL2	.866	O...	-.5												
39	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5	WLZ	.082														
40	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5	WLZ	.071	W...	.041												
41	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5	WLZ	.041	W...	.071												
42	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5			W...	.082												
43	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5	WLZ	-.0...	W...	.071												
44	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5	WLZ	-.0...	W...	.041												
45	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5	WLZ	-.0...														
46	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5	WLZ	-.0...	W...	-.0...												
47	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5	WLZ	-.0...	W...	-.0...												
48	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5			W...	-.0...												
49	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5	WLZ	.041	W...	-.0...												
50	1.2D + 1.5L + 1.0WL (3...	Yes	Y		DL	1.2	LL	1.5	WLZ	.071	W...	-.0...												

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	N5	max	164.391	5	285.446	27	343.879	14	93.277	14	109.594	5	45.318	11
2		min	-164.391	11	62.683	20	-343.879	8	-202.366	33	-109.594	11	-45.318	5
3	N6	max	164.391	17	285.446	33	343.879	2	93.26	20	109.594	17	45.309	17
4		min	-164.391	23	62.683	14	-343.879	20	-202.357	27	-109.594	23	-45.309	23
5	Totals:	max	328.782	5	570.891	28	687.758	14						
6		min	-328.782	11	125.366	14	-687.758	20						

Envelope AISC 14th(360-10): LRFD Steel Code Checks

	Member	Shape	Code Check	Loc[in]	LC	Shear C...	Loc[in]	Dir	LC	phi*Pnc [l...	phi*P...	phi*M...	phi*M.....	Eqn
1	MP1	PIPE_2.0	.076	78.75	8	.033	78.75		8	17855.085	32130	1871...	1871...	1 H1-1b

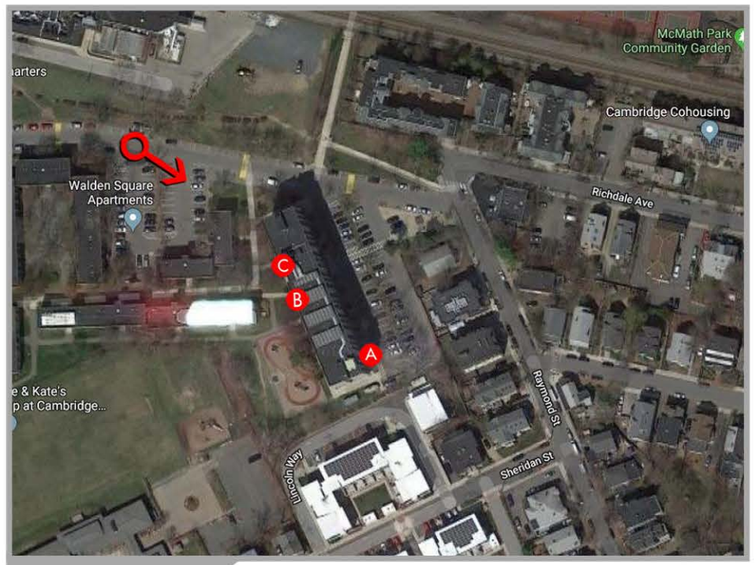
INFINIGY
THE SOLUTIONS ARE ENDLESS

MAL02852

CAMBRIDGE SHERMAN STREET

102 SHERMAN STREET CAMBRIDGE, MA 02140

AT&T



LOCATION

@2016 Google Maps

EXISTING

PROPOSED

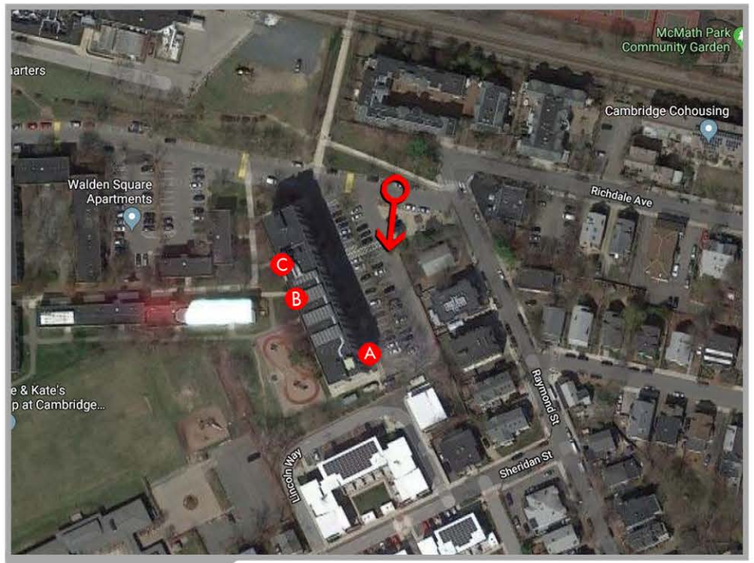
INFINIGY
THE SOLUTIONS ARE ENDLESS

MAL02852

CAMBRIDGE SHERMAN STREET

102 SHERMAN STREET CAMBRIDGE, MA 02140

AT&T



LOCATION

@2016 Google Maps

EXISTING

PROPOSED

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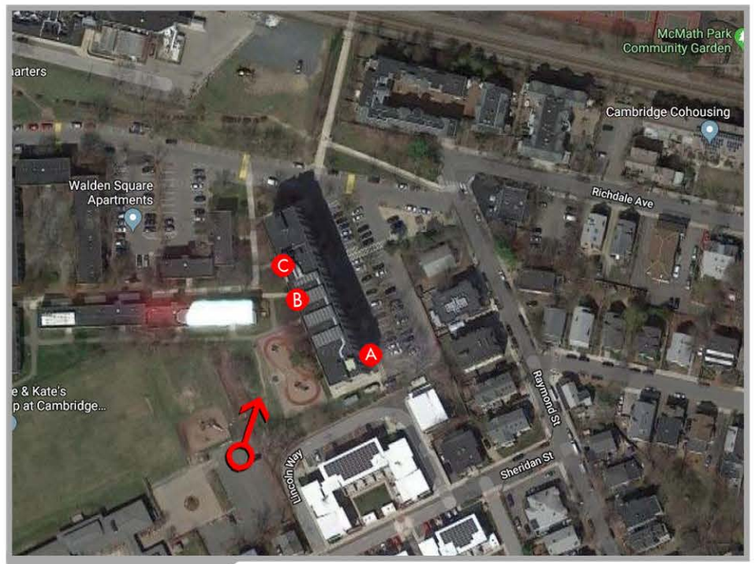
MAL02852

CAMBRIDGE SHERMAN STREET

102 SHERMAN STREET CAMBRIDGE, MA 02140

AT&T



LOCATION

@2016 Google Maps

EXISTING

PROPOSED

INFINIGY
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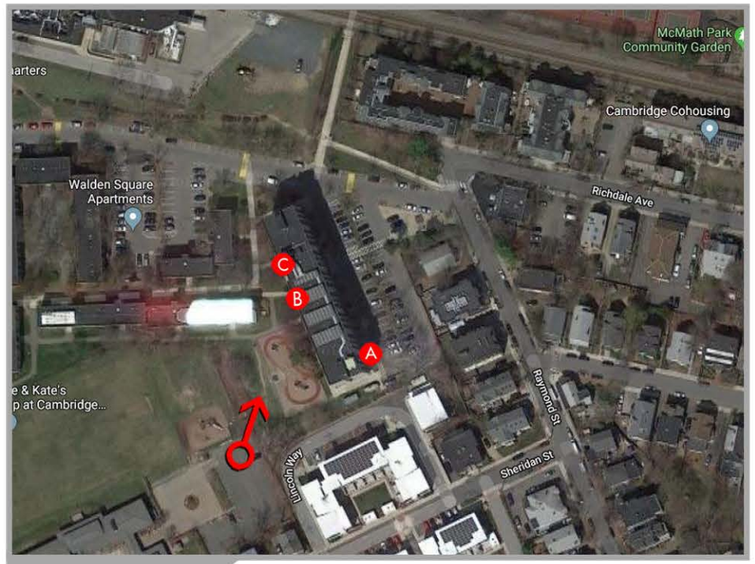
MAL02852

CAMBRIDGE SHERMAN STREET

102 SHERMAN STREET CAMBRIDGE, MA 02140

AT&T



LOCATION

@2016 Google Maps

EXISTING

PROPOSED

SITESAFE
RF COMPLIANCE EXPERTS

200 North Glebe Road, Suite 1000, Arlington, VA 22203-3728
703.276.1100 ● 703.276.1169 fax
info@sitesafe.com ● www.sitesafe.com

Smartlink on behalf of AT&T Mobility, LLC
Site FA – 11585657
Site ID – MA2852 (MRCTB015346)
USID – 157065
Site Name – Cambridge Sherman Street
Site Compliance Report

102 Sherman Street
Cambridge, MA 02140

Latitude: N42-23-20.51
Longitude: W71-7-45.81
Structure Type: Rooftop

Report generated date: January 25, 2018
Report by: Sam Cosgrove
Customer Contact: Patrick Baker

AT&T Mobility, LLC will be compliant when the remediation recommended in Section 5.2 or other appropriate remediation is implemented.

Table of Contents

1 General Site Summary

1.1 Report Summary

AT&T Mobility, LLC	Summary
Access to Antennas Locked?	Yes
RF Sign(s) @ access point(s)	(1) Information 1 @ Accesses 1 & 2
RF Sign(s) @ antennas	(2) Notice 2 @ Alpha (2) Notice @ Beta (6) Notice @ Gamma
Barrier(s) @ sectors	Beta and Gamma
Max cumulative simulated RFE level on the Rooftop	876.8% General Public Limit at AT&T Mobility, LLC Alpha Sector Antenna #2
Max cumulative simulated RFE level on the Ground Level	<1% General Public Limit
FCC & AT&T Compliant?	Will Be Compliant

Note: The existing signage was documented at a previous site visit 08/06/17.

The following documents were provided by the client and were utilized to create this report:

RFDS: NEW-ENGLAND_BOSTON_MA2852_2018-LTE-Multi-Carrier_LTE_sp656b_2101A0DD4P_11585657_157065_06-13-2017_Final-Approved_v1.00

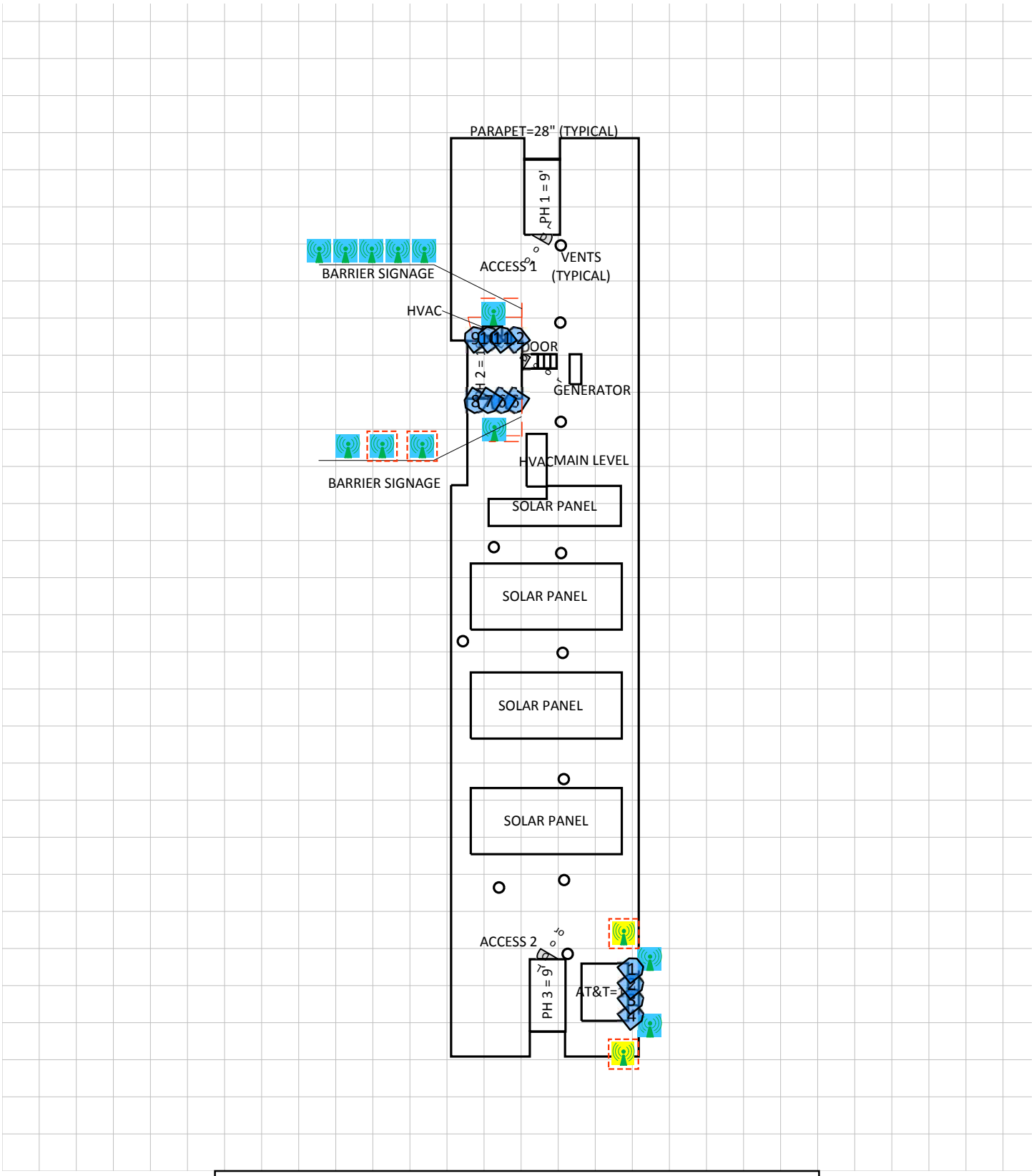
CD's: 11585657_AE201_171208_MAL02852_REV1

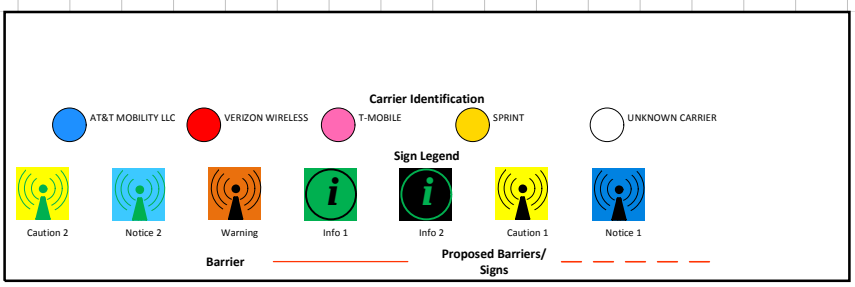
2 Scale Maps of Site

The following diagrams are included:

- Site Scale Map
- RF Exposure Diagram
- AT&T Mobility, LLC Contribution
- Alpha Sector – Detail View
- Beta and Gamma Sectors – Detail View

Site Scale Map For: Cambridge Sherman Street





(Feet)

0 18.5 37

www.sitesafe.com
Site Name:Cambridge Sherman Street
1/24/2018 12:13:48 PM

3 Antenna Inventory

The following antenna inventory on this and the following page, were obtained by the customer and were utilized to create the site model diagrams:

Ant ID	Operator	Antenna Make & Model	Type	TX Freq (MHz)	Az (Deg)	Hor BW (Deg)	Ant Len (ft)	Ant Gain (dBd)	2G GSM Radio(s)	3G UMTS Radio(s)	4G Radio(s)	Total ERP (Watts)	X	Y	Z
1	AT&T MOBILITY LLC	CCI Antennas HPA-65R-BUU-H8	Panel	850	30	58.1	7.7	14.46	0	1	0	729.5	156.2'	73.7'	4.2'
2	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H8	Panel	737	30	64.9	7.7	13.26	0	0	1	1475.7	156.2'	69.5'	4.2'
2	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H8	Panel	850	30	58.1	7.7	14.46	0	0	1	1000	156.2'	69.5'	4.2'
2	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H8	Panel	2300	30	63.3	7.7	15.26	0	0	1	1285.3	156.2'	69.5'	4.2'
3	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800-10966	Panel	737	30	67.9	8	13.55	0	0	1	1475.7	156.2'	65.4'	4'
3	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800-10966	Panel	2100	30	64.4	8	16.15	0	0	1	3837.1	156.2'	65.4'	4'
4	AT&T MOBILITY LLC	CCI Antennas HPA-65R-BUU-H8	Panel	737	30	64.9	7.7	13.26	0	0	1	1475.7	156.2'	61.2'	4.2'
4	AT&T MOBILITY LLC	CCI Antennas HPA-65R-BUU-H8	Panel	1900	30	63.1	7.7	14.76	0	0	1	3664.4	156.2'	61.2'	4.2'
5	AT&T MOBILITY LLC	CCI Antennas HPA-65R-BUU-H8	Panel	850	190	58.1	7.7	14.46	0	1	0	729.5	124.7'	226.7'	7.2'
6	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H8	Panel	737	190	64.9	7.7	13.26	0	0	1	1475.7	121.2'	226.7'	7.2'
6	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H8	Panel	850	190	58.1	7.7	14.46	0	0	1	1000	121.2'	226.7'	7.2'
6	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H8	Panel	2300	190	63.3	7.7	15.26	0	0	1	1285.3	121.2'	226.7'	7.2'
7	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800-10966	Panel	737	190	67.9	8	13.55	0	0	1	1475.7	117.6'	226.7'	7'
7	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800-10966	Panel	2100	190	64.4	8	16.15	0	0	1	3837.1	117.6'	226.7'	7'
8	AT&T MOBILITY LLC	CCI Antennas HPA-65R-BUU-H8	Panel	737	190	64.9	7.7	13.26	0	0	1	1475.7	114.1'	226.7'	7.2'
8	AT&T MOBILITY LLC	CCI Antennas HPA-65R-BUU-H8	Panel	1900	190	63.1	7.7	14.76	0	0	1	3664.4	114.1'	226.7'	7.2'
9	AT&T MOBILITY LLC	CCI Antennas HPA-65R-BUU-H8	Panel	850	300	58.1	7.7	14.46	0	1	0	729.5	114.1'	243.8'	7.2'
10	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H8	Panel	737	300	64.9	7.7	13.26	0	0	1	1475.7	117.6'	243.8'	7.2'
10	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H8	Panel	850	300	58.1	7.7	14.46	0	0	1	1000	117.6'	243.8'	7.2'
10	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H8	Panel	2300	300	63.3	7.7	15.26	0	0	1	1285.3	117.6'	243.8'	7.2'
11	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800-10966	Panel	737	300	67.9	8	13.55	0	0	1	1475.7	121.2'	243.8'	7'
11	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800-10966	Panel	2100	300	64.4	8	16.15	0	0	1	3837.1	121.2'	243.8'	7'
12	AT&T MOBILITY LLC	CCI Antennas HPA-65R-BUU-H8	Panel	737	300	64.9	7.7	13.26	0	0	1	1475.7	124.8'	243.8'	7.2'
12	AT&T MOBILITY LLC	CCI Antennas HPA-65R-BUU-H8	Panel	1900	300	63.1	7.7	14.76	0	0	1	3664.4	124.8'	243.8'	7.2'

NOTE: X, Y and Z indicate relative position of the bottom of the antenna to the origin location on the site, displayed in the model results diagram. Specifically, the Z reference indicates the bottom of the antenna height above the main site level unless otherwise indicated. The distance to the bottom of the antenna is calculated by subtracting half of the length of the antenna from the antenna centerline. Effective Radiated Power (ERP) is provided by the operator or based on Sitesafe experience. The values used in the modeling may be greater than are currently deployed. For other operators at this site the use of "Generic" as an antenna model or "Unknown" for a wireless operator means the information with regard to operator, their FCC license and/or antenna information was not available nor could it be secured while on site. Other operator's equipment, antenna models and powers used for modeling are based on obtained information or Sitesafe experience.

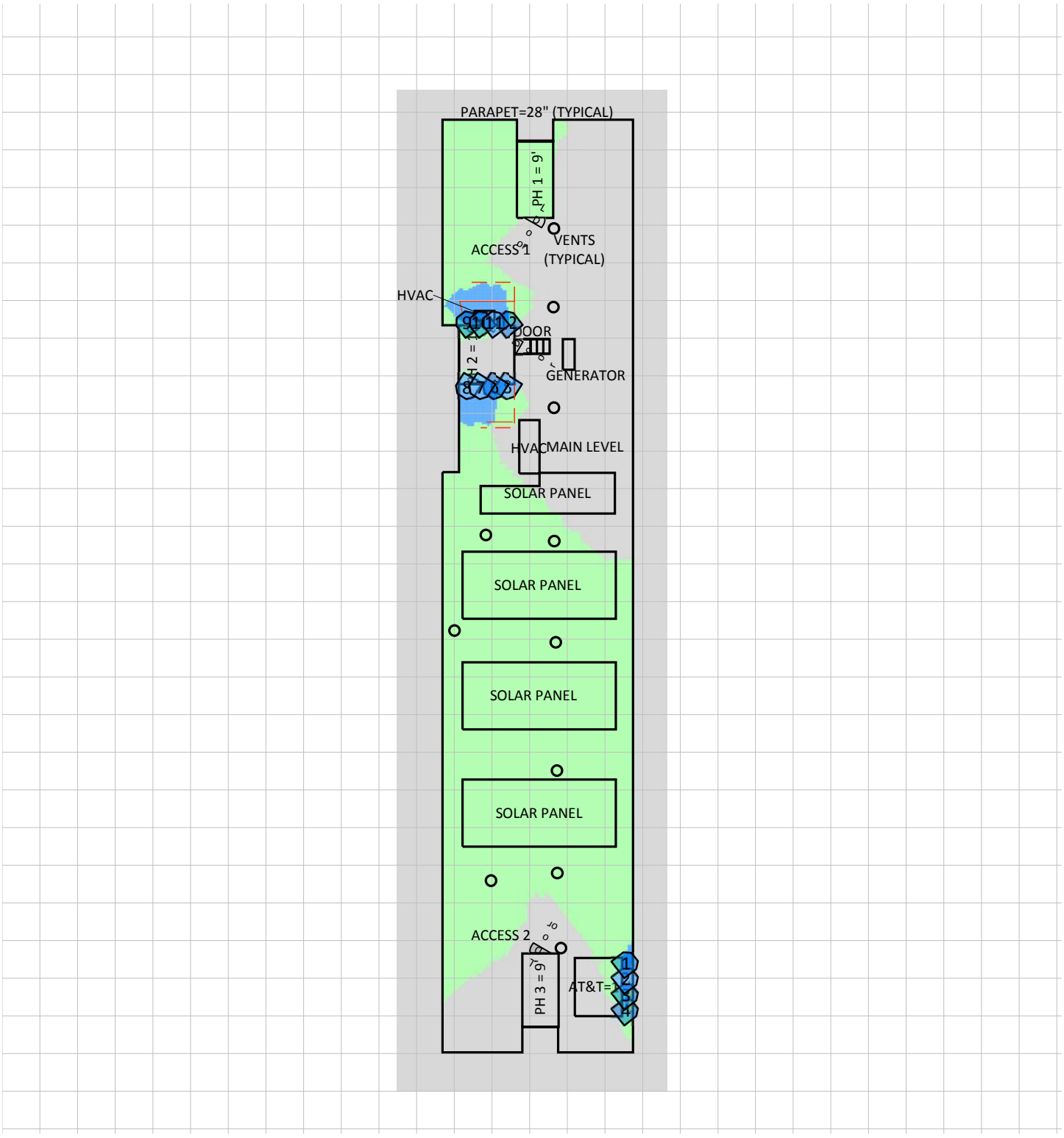
Note: The 737MHz LTE, 850MHz LTE, and 2300MHz LTE technologies on antennas 2, 6, and 10 are being added to existing antennas.

4 Emission Predictions

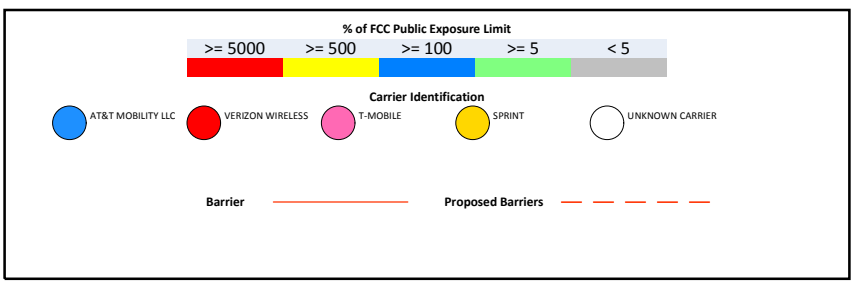
In the RF Exposure Simulations below all heights are reflected with respect to main site level. In most rooftop cases this is the height of the main rooftop and in other cases this can be ground level. Each different height area, rooftop, or platform level is labeled with its height relative to the main site level. Emissions are calculated appropriately based on the relative height and location of that area to all antennas.

The Antenna Inventory heights are referenced to the same level.

RF Exposure Simulation For: Cambridge Sherman Street



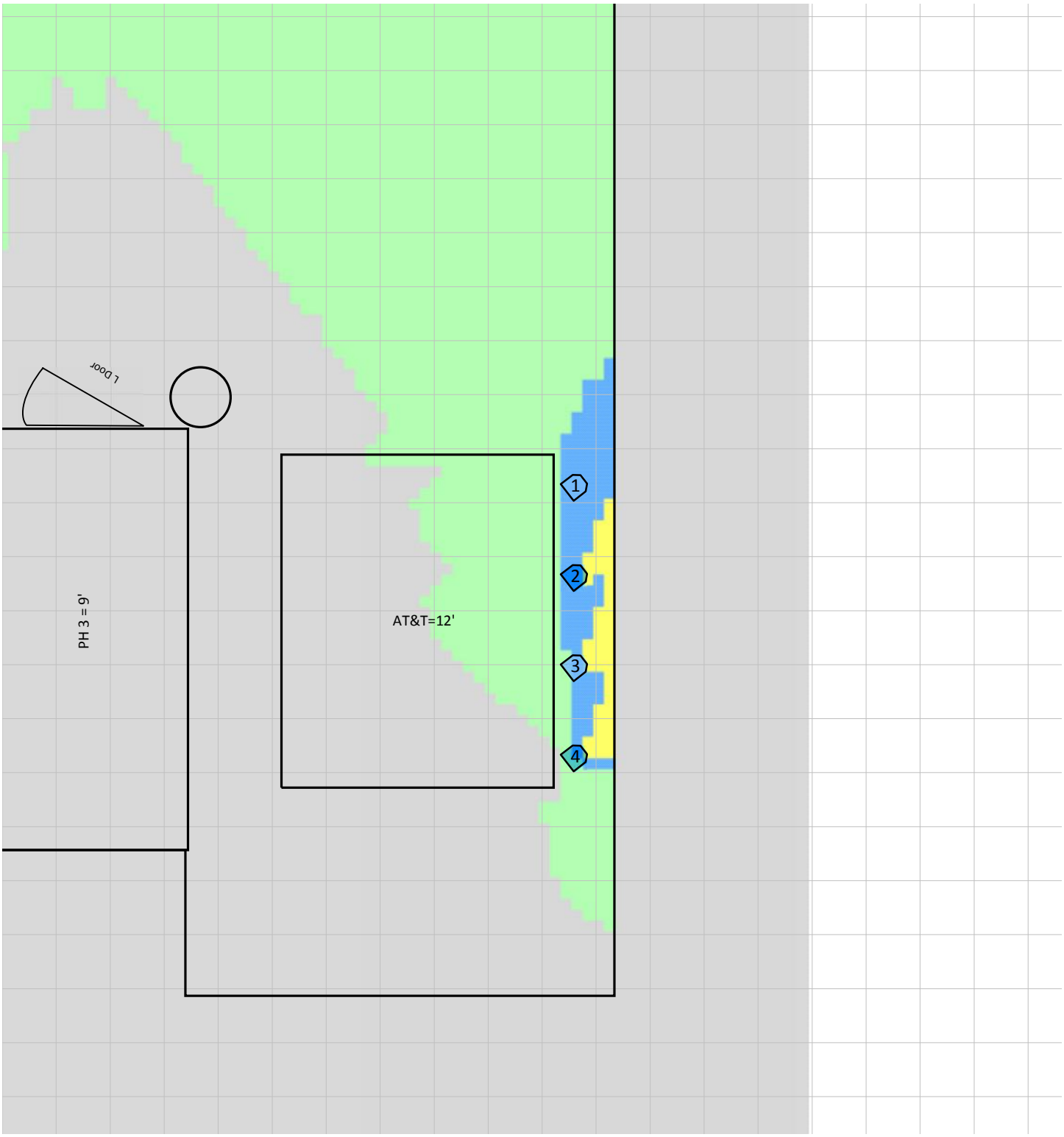
% of FCC Public Exposure Limit
Spatial average 0' - 6'



(Feet)
0 19.9 39.8
www.sitesafe.com
Site Name:Cambridge Sherman Street
1/24/2018 12:07:33 PM

SitesafeTC Version:1.0.0.0 - 0.0.0.266
Sitesafe OET-65 Model
Near Field Boundary: 1.5 * Aperture
Reflection Factor: 1
Spatially Averaged

RF Exposure Simulation For: Cambridge Sherman Street
Alpha Sector – Detail View



% of FCC Public Exposure Limit
Spatial average 0' - 6'

% of FCC Public Exposure Limit
>= 5000 | >= 500 | >= 100 | >= 5 | < 5

Carrier Identification
AT&T MOBILITY LLC | VERIZON WIRELESS | T-MOBILE | SPRINT | UNKNOWN CARRIER

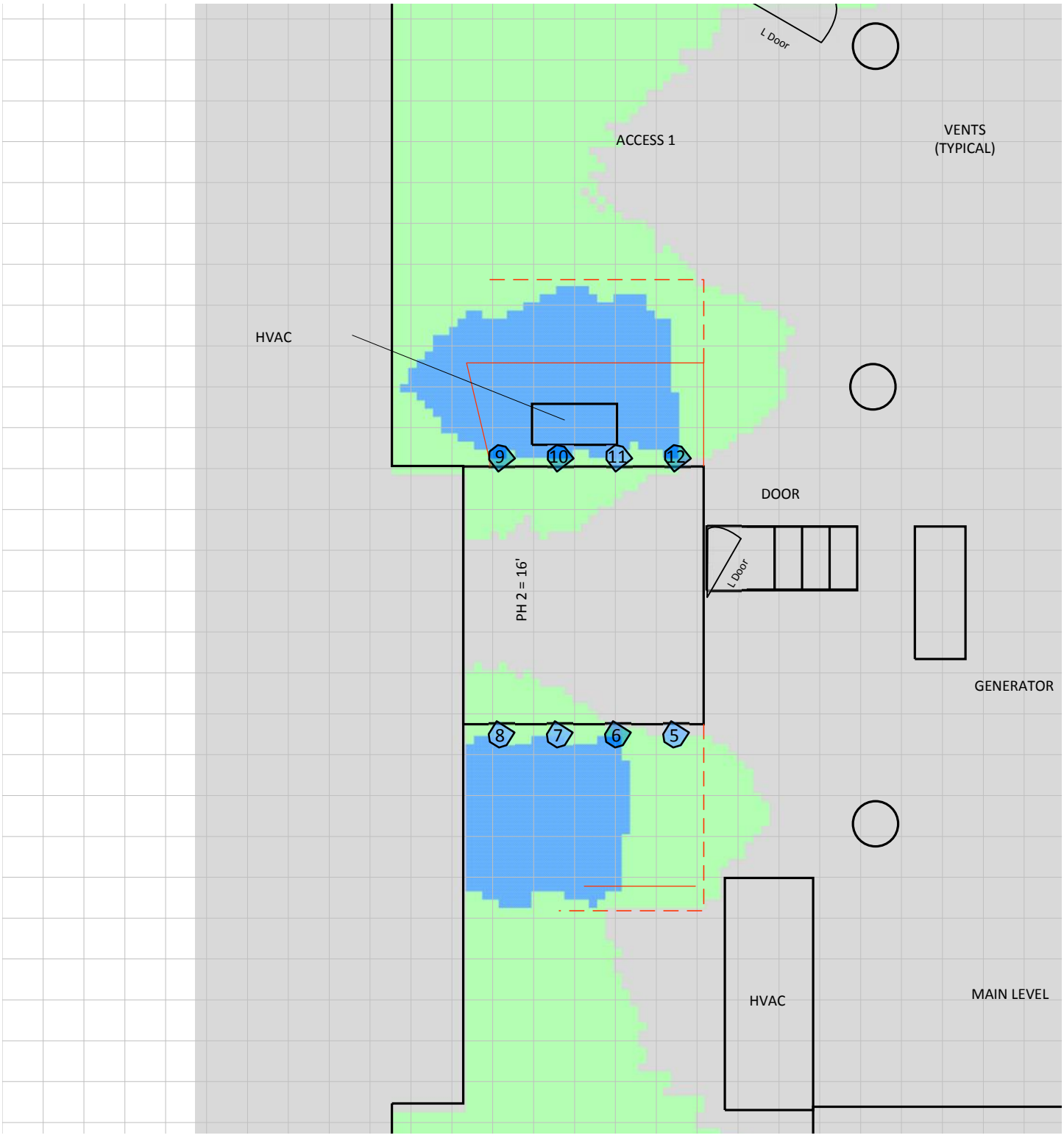
Barrier | Proposed Barriers

(Feet)
0 3.5 7

www.sitesafe.com
Site Name:Cambridge Sherman Street
1/24/2018 12:09:53 PM

SitesafeTC Version:1.0.0.0 - 0.0.0.266
Sitesafe OET-65 Model
Near Field Boundary: 1.5 * Aperture
Reflection Factor: 1
Spatially Averaged

RF Exposure Simulation For: Cambridge Sherman Street
Beta and Gamma Sectors – Detail View



% of FCC Public Exposure Limit
Spatial average 0' - 6'

% of FCC Public Exposure Limit

>= 5000	>= 500	>= 100	>= 5	< 5

Carrier Identification

AT&T MOBILITY LLC | VERIZON WIRELESS | T-MOBILE | SPRINT | UNKNOWN CARRIER

Barrier — Proposed Barriers

(Feet)

0 4.3 8.6

www.sitesafe.com
Site Name:Cambridge Sherman Street
1/24/2018 12:08:21 PM

SitesafeTC Version:1.0.0.0 - 0.0.0.266
Sitesafe OET-65 Model
Near Field Boundary: 1.5 * Aperture
Reflection Factor: 1
Spatially Averaged

5 Site Compliance

5.1 Site Compliance Statement

Upon evaluation of the cumulative RF emission levels from all operators at this site, RF hazard signage and antenna locations, Sitesafe has determined that:

AT&T Mobility, LLC will be compliant when the remediation recommended in Section 5.2 or other appropriate remediation is implemented.

The compliance determination is based on General Public RFE levels derived from theoretical modeling, RF signage placement, proposed antenna inventory and the level of restricted access to the antennas at the site. Any deviation from the AT&T Mobility, LLC's proposed deployment plan could result in the site being rendered non-compliant.

Modeling is used for determining compliance and the percentage of MPE contribution.

5.2 Actions for Site Compliance

Based on FCC regulations, common industry practice, and our understanding of AT&T Mobility, LLC RF Safety Policy requirements, this section provides a statement of recommendations for site compliance. Recommendations have been proposed based on our understanding of existing access restrictions, signage, and an analysis of predicted RFE levels.

AT&T Mobility, LLC will be made compliant if the following changes are implemented:

AT&T Mobility, LLC Proposed Alpha Sector Location

Yellow Caution 2 sign required at both ends of the sector.

AT&T Mobility, LLC Proposed Beta Sector Location

Reconfigure the barrier to 12 ft x 8 ft, as depicted in the site scale map.
Install 2 additional Notice 2 sign(s) on the proposed barrier chain segments.

- 12 ft segment: (2) Notice 2 sign(s) (1 Existing and 1 Additional needed)
- 8 ft segment: (1) Notice 2 sign(s)

AT&T Mobility, LLC Proposed Gamma Sector Location

Reconfigure the barrier to 12 ft x 13 ft, as depicted in the site scale map.

Notes:

- Signage on the barriers should be placed in the middle of each barrier segment no more than 8' apart from each other.
- Barriers were only recommended in areas predicted to exceed the General Public MPE limit greater than 6' from the unprotected roof edge. All other predicted to exceed areas are within 6' of the unprotected roof edge.
- Ensure all existing signage and barriers documented in this report still exist at the site.
- Remove the existing Notice 2 signs at the Alpha sector and the Information 1 signs at the Accesses per AT&T Mobility, LLC signage policy.

6 Reviewer Certification

The reviewer whose signature appears below hereby certifies and affirms:

That I am an employee of Sitesafe, Inc., in Arlington, Virginia, at which place the staff and I provide RF compliance services to clients in the wireless communications industry; and

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission (FCC) as well as the regulations of the Occupational Safety and Health Administration (OSHA), both in general and specifically as they apply to the FCC Guidelines for Human Exposure to Radio-frequency Radiation; and

That I have thoroughly reviewed this Site Compliance Report and believe it to be true and accurate to the best of my knowledge as assembled by and attested to by Sam Cosgrove.

January 25, 2018

Appendix A – Statement of Limiting Conditions

Sitesafe has provided computer generated model(s) in this Site Compliance Report to show approximate dimensions of the site, and the model is included to assist the reader of the compliance report to visualize the site area, and to provide supporting documentation for Sitesafe's recommendations.

Sitesafe may note in the Site Compliance Report any adverse physical conditions, such as needed repairs, that Sitesafe became aware of during the normal research involved in creating this report. Sitesafe will not be responsible for any such conditions that do exist or for any engineering or testing that might be required to discover whether such conditions exist. Because Sitesafe is not an expert in the field of mechanical engineering or building maintenance, the Site Compliance Report must not be considered a structural or physical engineering report.

Sitesafe obtained information used in this Site Compliance Report from sources that Sitesafe considers reliable and believes them to be true and correct. Sitesafe does not assume any responsibility for the accuracy of such items that were furnished by other parties. When conflicts in information occur between data collected by Sitesafe provided by a second party and data collected by Sitesafe, the data will be used.

Appendix B – Regulatory Background Information

FCC Rules and Regulations

In 1996, the Federal Communications Commission (FCC) adopted regulations for the evaluating of the effects of RF emissions in 47 CFR § 1.1307 and 1.1310. The guideline from the FCC Office of Engineering and Technology is Bulletin 65 ("OET Bulletin 65"), *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields*, Edition 97-01, published August 1997. Since 1996 the FCC periodically reviews these rules and regulations as per their congressional mandate.

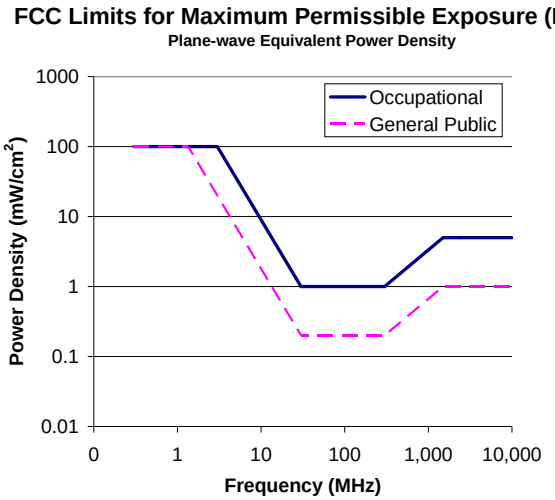
FCC regulations define two separate tiers of exposure limits: Occupational or "Controlled environment" and General Public or "Uncontrolled environment". The General Public limits are generally five times more conservative or restrictive than the Occupational limit. These limits apply to *accessible* areas where workers or the general public may be exposed to Radio Frequency (RF) electromagnetic fields.

Occupational or Controlled limits apply in situations in which persons are exposed as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure.

An area is considered a Controlled environment when access is limited to these aware personnel. Typical criteria are restricted access (i.e. locked or alarmed doors, barriers, etc.) to the areas where antennas are located coupled with proper RF warning signage. A site with Controlled environments is evaluated with Occupational limits.

All other areas are considered Uncontrolled environments. If a site has no access controls or no RF warning signage it is evaluated with General Public limits.

The theoretical modeling of the RF electromagnetic fields has been performed in accordance with OET Bulletin 65. The Maximum Permissible Exposure (MPE) limits utilized in this analysis are outlined in the following diagram:



Limits for Occupational/Controlled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

Limits for General Population/Uncontrolled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz *Plane-wave equivalent power density

OSHA Statement

The General Duty clause of the OSHA Act (Section 5) outlines the occupational safety and health responsibilities of the employer and employee. The General Duty clause in Section 5 states:

(a) Each employer –

(1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;

(2) shall comply with occupational safety and health standards promulgated under this Act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

OSHA has defined Radiofrequency and Microwave Radiation safety standards for workers who may enter hazardous RF areas. Regulation Standards 29 CFR § 1910.147 identify a generic Lock Out Tag Out procedure aimed to control the unexpected energization or start up of machines when maintenance or service is being performed.

Appendix C – Safety Plan and Procedures

The following items are general safety recommendations that should be administered on a site by site basis as needed by the carrier.

General Maintenance Work: Any maintenance personnel required to work immediately in front of antennas and / or in areas indicated as above 100% of the Occupational MPE limits should coordinate with the wireless operators to disable transmitters during their work activities.

Training and Qualification Verification: All personnel accessing areas indicated as exceeding the General Population MPE limits should have a basic understanding of EME awareness and RF Safety procedures when working around transmitting antennas. Awareness training increases a workers understanding to potential RF exposure scenarios. Awareness can be achieved in a number of ways (e.g. videos, formal classroom lecture or internet based courses).

Physical Access Control: Access restrictions to transmitting antennas locations is the primary element in a site safety plan. Examples of access restrictions are as follows:

- Locked door or gate
- Alarmed door
- Locked ladder access
- Restrictive Barrier at antenna (e.g. Chain link with posted RF Sign)

RF Signage: Everyone should obey all posted signs at all times. RF signs play an important role in properly warning a worker prior to entering into a potential RF Exposure area.

Assume all antennas are active: Due to the nature of telecommunications transmissions, an antenna transmits intermittently. Always assume an antenna is transmitting. Never stop in front of an antenna. If you have to pass by an antenna, move through as quickly and safely as possible thereby reducing any exposure to a minimum.

Maintain a 3 foot clearance from all antennas: There is a direct correlation between the strength of an EME field and the distance from the transmitting antenna. The further away from an antenna, the lower the corresponding EME field is.

Site RF Emissions Diagram: Section 4 of this report contains an RF Diagram that outlines various theoretical Maximum Permissible Exposure (MPE) areas at the site. The modeling is a worst case scenario assuming a duty cycle of 100% for each transmitting antenna at full power. This analysis is based on one of two access control criteria: General Public criteria means the access to the site is uncontrolled and anyone can gain access. Occupational criteria means the access is restricted and only properly trained individuals can gain access to the antenna locations.

Appendix D – RF Emissions

The RF Emissions Simulation(s) in this report display theoretical spatially averaged percentage of the Maximum Permissible Exposure for all systems at the site unless otherwise noted. These diagrams use modeling as prescribed in OET Bulletin 65 and assumptions detailed in Appendix E.

The key at the bottom of each RF Emissions Simulation indicates percentages displayed referenced to FCC General Public Maximum Permissible Exposure (MPE) limits. Color coding on the diagram is as follows:

- Areas indicated as Gray are predicted to be below 5% of the MPE limits. **Gray represents areas more than 20 times below the most conservative exposure limit**.
- Green represents areas are predicted to be between 5% and 100% of the MPE limits. **Green areas are accessible to anyone**.
- Blue represents areas predicted to exceed the General Public MPE limits but are less than Occupational limits. **Blue areas should be accessible only to RF trained workers**.
- Yellow represents areas predicted to exceed Occupational MPE limits. **Yellow areas should be accessible only to RF trained workers able to assess current exposure levels**.
- Red represents areas predicted to have exposure more than 10 times the Occupational MPE limits. **Red indicates that the RF levels must be reduced prior to access.** An RF Safety Plan is required which outlines how to reduce the RF energy in these areas prior to access.

Appendix E – Assumptions and Definitions

General Model Assumptions

In this site compliance report, it is assumed that all antennas are operating at **full power at all times**. Software modeling was performed for all transmitting antennas located on the site. Sitesafe has further assumed a 100% duty cycle and maximum radiated power.

The modeling is based on recommendations from the FCC's OET-65 bulletin with the following variances per AT&T guidance. Reflection has not been considered in the modeling, i.e. the reflection factor is 1.0. The near / far field boundary has been set to 1.5 times the aperture height of the antenna and modeling beyond that point is the lesser of the near field cylindrical model and the far field model taking into account the gain of the antenna.

The site has been modeled with these assumptions to show the maximum RF energy density. Areas modeled with exposure greater than 100% of the General Public MPE level may not actually occur, but are shown as a prediction that could be realized. Sitesafe believes these areas to be safe for entry by occupationally trained personnel utilizing appropriate personal protective equipment (in most cases, a personal monitor).

Use of Generic Antennas

For the purposes of this report, the use of "Generic" as an antenna model, or "Unknown" for an operator means the information about a carrier, their FCC license and/or antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of equipment, antenna models, and transmit power to model the site. If more specific information can be obtained for the unknown measurement criteria, Sitesafe recommends remodeling of the site utilizing the more complete and accurate data. Information about similar facilities is used when the service is identified and associated with a particular antenna. If no information is available regarding the transmitting service associated with an unidentified antenna, using the antenna manufacturer's published data regarding the antenna's physical characteristics makes more conservative assumptions.

Where the frequency is unknown, Sitesafe uses the closest frequency in the antenna's range that corresponds to the highest Maximum Permissible Exposure (MPE), resulting in a conservative analysis.

Definitions

5% Rule – The rules adopted by the FCC specify that, in general, at multiple transmitter sites actions necessary to bring the area into compliance with the guidelines are the shared responsibility of all licensees whose transmitters produce field strengths or power density levels at the area in question in excess of 5% of the exposure limits. In other words, any wireless operator that contributes 5% or greater of the MPE limit in an area that is identified to be greater than 100% of the MPE limit is responsible taking corrective actions to bring the site into compliance.

Compliance – The determination of whether a site is safe or not with regards to Human Exposure to Radio Frequency Radiation from transmitting antennas.

Decibel (dB) – A unit for measuring power or strength of a signal.

Duty Cycle – The percent of pulse duration to the pulse period of a periodic pulse train. Also, may be a measure of the temporal transmission characteristic of an intermittently transmitting RF source such as a paging antenna by dividing average transmission duration by the average period for transmission. A duty cycle of 100% corresponds to continuous operation.

Effective (or Equivalent) Isotropic Radiated Power (EIRP) – The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna.

Effective Radiated Power (ERP) – In a given direction, the relative gain of a transmitting antenna with respect to the maximum directivity of a half wave dipole multiplied by the net power accepted by the antenna from the connecting transmitter.

Gain (of an antenna) – The ratio of the maximum intensity in a given direction to the maximum radiation in the same direction from an isotropic radiator. Gain is a measure of the relative efficiency of a directional antennas as compared to an omni directional antenna.

General Population/Uncontrolled Environment – Defined by the FCC, as an area where exposure to RF energy may occur to persons who are **unaware** of the potential for exposure and who have no control of their exposure. General Population is also referenced as General Public.

Generic Antenna – For the purposes of this report, the use of "Generic" as an antenna model means the antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of antenna models to select a worst case scenario antenna to model the site.

Isotropic Antenna – An antenna that is completely non-directional. In other words, an antenna that radiates energy equally in all directions.

Maximum Measurement – This measurement represents the single largest measurement recorded when performing a spatial average measurement.

Maximum Permissible Exposure (MPE) – The maximum levels of RF exposure a person may be exposed to without harmful effect and with acceptable safety factor.

Occupational/Controlled Environment – Defined by the FCC, as an area where Radio Frequency Radiation (RFR) exposure may occur to persons who are **aware** of the

potential for exposure as a condition of employment or specific activity and can exercise control over their exposure.

OET Bulletin 65 – Technical guideline developed by the FCC's Office of Engineering and Technology to determine the impact of Radio Frequency radiation on Humans. The guideline was published in August 1997.

OSHA (Occupational Safety and Health Administration) – Under the Occupational Safety and Health Act of 1970, employers are responsible for providing a safe and healthy workplace for their employees. OSHA's role is to promote the safety and health of America's working men and women by setting and enforcing standards; providing training, outreach and education; establishing partnerships; and encouraging continual process improvement in workplace safety and health. For more information, visit www.osha.gov.

Radio Frequency (RF) – The frequencies of electromagnetic waves which are used for radio communications. Approximately 3 kHz to 300 GHz.

Radio Frequency Exposure (RFE) – The amount of RF power density that a person is or might be exposed to.

Spatial Average Measurement – A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average power density an average sized human will be exposed to at a location.

Transmitter Power Output (TPO) – The radio frequency output power of a transmitter's final radio frequency stage as measured at the output terminal while connected to a load.

Appendix F – References

The following references can be followed for further information about RF Health and Safety.

Sitesafe, Inc.
http://www.sitesafe.com
FCC Radio Frequency Safety
http://www.fcc.gov/encyclopedia/radio-frequency-safety
National Council on Radiation Protection and Measurements (NCRP)
http://www.ncrponline.org
Institute of Electrical and Electronics Engineers, Inc., (IEEE)
http://www.ieee.org
American National Standards Institute (ANSI)
http://www.ansi.org
Environmental Protection Agency (EPA)
http://www.epa.gov/radtown/wireless-tech.html
National Institutes of Health (NIH)
http://www.niehs.nih.gov/health/topics/agents/emf/
Occupational Safety and Health Agency (OSHA)
http://www.osha.gov/SLTC/radiofrequencyradiation/
International Commission on Non-Ionizing Radiation Protection (ICNIRP)
http://www.icnirp.org
World Health Organization (WHO)
http://www.who.int/peh-emf/en/
National Cancer Institute
http://www.cancer.gov/cancertopics/factsheet/Risk/cellphones
American Cancer Society (ACS)
http://www.cancer.org/docroot/PED/content/PED_1_3X_Cellular_Phone_Towers.asp?siteareа=PED
European Commission Scientific Committee on Emerging and Newly Identified Health Risks
http://ec.europa.eu/health/ph_risk/committees/04_scenihr/docs/scenihr_o_022.pdf
Fairfax County, Virginia Public School Survey
http://www.fcps.edu/fts/safety-security/RFEESurvey/
UK Health Protection Agency Advisory Group on Non-ionising Radiation
http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1317133826368
Norwegian Institute of Public Health
http://www.fhi.no/dokumenter/545eea7147.pdf

MARTHA COAKLEY
ATTORNEY GENERAL

THE COMMONWEALTH OF MASSACHUSETTS
OFFICE OF THE ATTORNEY GENERAL
CENTRAL MASSACHUSETTS DIVISION
10 MECHANIC STREET, SUITE 301
WORCESTER, MA 01608

(508) 792-7600
(508) 795-1991 fax
www.mass.gov/ago

June 12, 2013

Gail Garrett, Town Clerk
Town of Mount Washington
118 East Street
Mount Washington, MA 01258

RE: Mount Washington Special Town Meeting of April 1, 2013 - Case # 6642
Warrant Articles # 1, 2, and 3 (Zoning)

Dear Ms. Garrett:

Articles 1, 2, and 3 - We approve the amendments to the Town by-laws adopted under Articles 1, 2, and 3 on the warrant for the Mount Washington Special Town Meeting that convened on April 1, 2013, and the map pertaining to Article 3. Our comments on Articles 1 and 2 are provided below.

Article 1 - The amendments adopted under Article 1 add a new Section 215-27 to the zoning by-laws entitled "Wireless Telecommunication Facility Zoning Bylaw." We approve the new Section 215-27, but offer the following comments.

I. Applicable Law

The federal Telecommunications Act of 1996, 47 U.S.C. § 332 (7) preserves state and municipal zoning authority to regulate personal wireless service facilities, subject to the following limitations:

1. Zoning regulations "shall not unreasonably discriminate among providers of functionally equivalent services." 47 U.S.C. §332(7) (B) (i) (I)

2. Zoning regulations "shall not prohibit or have the effect of prohibiting the provisions of personal wireless services." 47 U.S.C. § 332 (7) (B) (i) (II).

3. The Zoning Authority "shall act on any request for authorization to place, construct, or modify personal wireless service facilities within a reasonable period of time." 47 U.S.C.

§ 332 (7) (B) (ii).

4. Any decision "to deny a request to place, construct, or modify personal wireless service facilities shall be in writing and supported by substantial evidence contained in a written record." 47 U.S.C. § 332 (7) (B) (iii).

5. "No state or local government or instrumentality thereof may regulate the placement, construction and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the [Federal Communications] Commission's regulations concerning emissions." 47 U.S.C. § 332(7) (B) (iv).

Federal courts have construed the limitations listed under 47 U.S.C. § 332(7) as follows. First, even a facially neutral by-law may have the effect of prohibiting the provision of wireless coverage if its application suggests that no service provider is likely to obtain approval. "If the criteria or their administration effectively preclude towers no matter what the carrier does, they may amount to a ban 'in effect'…." Town of Amherst, N.H. v. Omnipoint Communications Enters, Inc., 173 F.3d 9, 14 (1st Cir. 1999).

Second, local zoning decisions and by-laws that prevent the closing of significant gaps in wireless coverage have been found to effectively prohibit the provision of personal wireless services in violation of 47 U.S.C. § 332(7). See, e.g., Nat'l Tower, LLC v. Plainville Zoning Bd. of Appeals, 297 F.3d 14, 20 (1st Cir. 2002) ("local zoning decisions and ordinances that prevent the closing of significant gaps in the availability of wireless services violate the statute"); Omnipoint Communications MB Operations, LLC v. Town of Lincoln, 107 F. Supp. 2d 108, 117 (D. Mass. 2000) (by-law resulting in significant gaps in coverage within town had effect of prohibiting wireless services).

Third, whether the denial of a permit has the effect of prohibiting the provision of personal wireless services depends in part upon the availability of reasonable alternatives. See 360 Degrees Communications Co. v. Bd. of Supervisors, 211 F.3d 79, 85 (4th Cir. 2000). Zoning regulations must allow cellular towers to exist somewhere. Towns may not effectively ban towers throughout the municipality, even under the application of objective criteria. See Virginia Metronet, Inc. v. Bd. of Supervisors, 984 F. Supp. 966, 971 (E.D. Va. 1998).

State law also establishes certain limitations on a municipality's authority to regulate wireless communications facilities and service providers. Under General Laws Chapter 40A, Section 3, wireless service providers may apply to the Department of Telecommunications and Cable for an exemption from local zoning requirements. If a telecommunication provider does not apply for or is not granted an exemption under c. 40A, § 3, it remains subject to local zoning requirements pertaining to cellular towers. See Building Comm'r of Franklin v. Dispatch Communications of New England, Inc., 48 Mass. App. Ct. 709, 722 (2000). Also, G.L. c. 40J, § 6B, charges the Massachusetts Broadband Institute with the task of promoting broadband access throughout the state. Municipal regulation of broadband service providers must not frustrate the achievement of this statewide policy.

In addition, Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012

requires that "[A] state or local government *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." (emphasis added). The Act defines "eligible facilities request" as any request for modification of an existing wireless tower or base station that involves: 1) collocation of new transmission equipment; 2) removal of transmission equipment; or 3) replacement of transmission equipment. The Act applies "[n]otwithstanding section 704 of the Telecommunications Act of 1996." The Act's requirement that a local government "may not deny, and shall approve, any eligible facilities request" means that a request for modification to an existing facility that does not substantially change the physical dimensions of the tower or base station must be approved. Such qualifying requests also cannot be subject to a discretionary special permit.

We approve the new Section 215-27. However, the Town must apply the by-law in a manner consistent with the applicable law outlined above. In particular, Section IV of the new by-law requires that Wireless Telecommunication Facilities are only allowed by special permit in the Wireless Telecommunication Overlay District. This requirement cannot be applied to eligible facilities requests for modification to existing facilities which qualify for required approval under Section 6409 of the Act, as described above. We urge the Town to consult closely with Town Counsel regarding the appropriate response to applications for collocation in light of these recent amendments.

II. Analysis of Mount Washington's Wireless Telecommunication Facility By-Law

A. Section VIII "Criteria For Approval and Conditions".

This section provides as follows:

> 5. The applicant will remove the Facility, should the Facility be abandoned or cease to operate. The Planning Board may require the applicant to provide a bond, or other form of financial guarantee acceptable to the Planning Board to cover the cost of removal of the Facility, should the Facility be abandoned or cease to operate, and ensure other compliance hereunder.

The Town must apply any bond or other financial guarantee proceeds in a manner consistent with state law. Bond proceeds do not become Town funds unless and until the applicant defaults on the obligation under the proposed by-law. Moreover, if the Town must use the bond to pay for removal of a wireless communication facility or the repair and/or restoration of the premises, an appropriation is required before expenditure is made to do the work. General Laws Chapter 44, Section 53, provides that "[a]ll moneys received by a city, town or district officer or department, except as otherwise provided by special acts and except fees provided for by statute, shall be paid by such officers or department upon their receipt into the city, town or district treasury." Under Section 53 all moneys received by the Town become a part of the general fund, unless the Legislature has expressly made other provisions that are applicable to such receipt. In the absence of any general or special law to the contrary, performance security funds of the sort contemplated here must be deposited with the Town Treasurer and made part of the Town's general fund, pursuant to G.L. c. 44, § 53. The Town must then appropriate the money for the specific purpose of completing the work required for removal and/or restoration.

B. Section X "Permit Revocation For Non-Performance".

Section X authorizes the Planning Board to revoke a special permit for failure to comply with certain conditions. We approve Section X. However, before the Planning Board revokes a permit for failure to comply with certain conditions provided in Section X, the Planning Board should discuss with Town Counsel what due process, including notice and hearing requirements, are required. We suggest that the Town discuss this issue in more detail with Town Counsel.

Finally, the word "ordinance" is used in the by-law. Towns enact "by-laws" and cities enact "ordinances." The Town may wish delete the word "ordinance" from the new Section 215-27 and insert the word "by-law" at a future Town Meeting.

Article 2 - The amendments adopted under Article 2 add a new Section 215-28, "Solar Photovoltaic Installation Moratorium Bylaw," to the Town's zoning by-laws. The temporary moratorium (through one year from the date of enactment of Section 215-28) on solar photovoltaic installation other than those mounted on an existing structure provides as follows:

> Whereas, the Town of Mount Washington is undertaking a comprehensive study with respect to regulating the use of land for Solar Photovoltaic Installations, and
>
> Whereas, there have been significant changes in law regarding Solar Photovoltaic Installations; and,
>
> Whereas, the Town wishes to act carefully in a field with evolving law and technology, to investigate ways to preserve the character of the community while serving the needs of its people, and to devise an orderly process for granting permits by drafting an amendment to the Bylaw which is comprehensive, practical, equitable, and addresses the concerns of the Town on number, size, appearance, site standards, and location of Solar Photovoltaic Installations; and,
>
> Whereas, it is desired to protect the Town from ill-advised and inappropriate development of Solar Photovoltaic Installations pending a thorough review and the formulation of such a zoning amendment; and,
>
> Whereas, the Planning Board has determined that one year is necessary for such a comprehensive review and development of a Bylaw Subsection on Solar Photovoltaic Installations.
>
> Now, therefore, no Solar Photovoltaic Installations other than those mounted on an existing structure, in the usual manner, shall be permitted for one year from the date of enactment of this Bylaw.

We approve the temporary moratorium adopted under Article 2 because the Town has the authority to "impose reasonable time limitations on development, at least where those restrictions are temporary and adopted to provide controlled development while the municipality engages in comprehensive planning studies." Sturges v. Chilmark, 380 Mass. 246, 252-253 (1980). Such a temporary moratorium is within the Town's zoning power where there is a stated need for "study, reflection and decision on a subject matter of [some] complexity…" W.R.

Grace v. Cambridge City Council, 56 Mass. App. Ct. 559, 569 (2002) (City's temporary moratorium on building permits in two districts was within city's authority to zone for public purposes.) The time limit Mount Washington has selected for its temporary moratorium (one year from the date of enactment of the by-law) appears to be reasonable in the circumstances. The moratorium is limited in time period and scope (to the use of land and structures for solar photovoltaic installations), and thus does not present the problem of a rate-of-development bylaw of unlimited duration which the Zuckerman court determined was unconstitutional. Zuckerman v. Hadley, 442 Mass. 511, 512 (2004) ("[A]bsent exceptional circumstances not present here, restrictions of unlimited duration on a municipality's rate of development are in derogation of the general welfare and thus are unconstitutional.")

While we approve the temporary one year moratorium on solar photovoltaic installations, we note that G.L. c. 40A, § 3, protects solar energy systems and the building of structures that facilitate the collection of solar energy from certain local zoning requirements. General Laws Chapter 40A, Section 3, provides in pertinent part as follows:

> No zoning ordinance or by-law shall prohibit or unreasonably regulate the installation of solar energy systems or the building of structures that facilitate the collection of solar energy, except where necessary to protect the public health, safety or welfare.

General Laws Chapter 40A, Section 3, prohibits towns from adopting zoning by-laws that prohibit or *unreasonably regulate* the installation of solar energy systems or the building of structures that facilitate the collection of solar energy, except where necessary to protect the public health, safety or welfare. A temporary moratorium longer than one year may be vulnerable to a challenge in court that it is an unreasonable regulation of solar energy systems under G.L. c. 40A, § 3. We suggest the Town consult closely with Town Counsel on this issue.

Note: Pursuant to G.L. c. 40, § 32, neither general nor zoning by-laws take effect unless the Town has first satisfied the posting/publishing requirements of that statute. Once this statutory duty is fulfilled, (1) general by-laws and amendments take effect on the date these posting and publishing requirements are satisfied unless a later effective date is prescribed in the by-law, and (2) zoning by-laws and amendments are deemed to have taken effect from the date they were approved by the Town Meeting, unless a later effective date is prescribed in the by-law.

Very truly yours,
MARTHA COAKLEY
ATTORNEY GENERAL
Kelli E. Gunagan
By: Kelli E. Gunagan
Assistant Attorney General
Municipal Law Unit
10 Mechanic Street, Suite 301
Worcester, MA 01608
(508) 792-7600

cc: Town Counsel Joel Bard (via electronic mail)

MAURA HEALEY
ATTORNEY GENERAL

THE COMMONWEALTH OF MASSACHUSETTS
OFFICE OF THE ATTORNEY GENERAL
CENTRAL MASSACHUSETTS DIVISION
10 MECHANIC STREET, SUITE 301
WORCESTER, MA 01608

(508) 792-7600
(508) 795-1991 fax
www.mass.gov/ago

February 23, 2015

Debra A. Bourbeau, Town Clerk
Town of Montague
1 Avenue A
Montague, MA 01376

RE: Montague Special Town Meeting of October 29, 2014 - Case # 7451
Warrant Article # 17 (Zoning)

Dear Ms. Bourbeau:

Article 17 - We approve Article 17 from the October 29, 2014 Montague Special Town Meeting. Article 17 amends several portions of the Town's zoning by-laws pertaining to site plan review.

1. Section 5.2 (d), Permitted Uses and Special Permits - Procedures

Section 5.2 (d) was deleted in its entirety and replaced with new text that provides as follows (with emphasis added):

> All applications for Special Permits and Site Plan Review from the Board of Appeals or the Planning Board shall be subject to the procedural requirements established by the respective Board. The Board of Appeals or Planning Board may determine that the assistance of outside professional expertise is required due to the size, scale, or complexity of a given project or its potential impact on the health, safety, and welfare of the Town. When outside review is determined to be necessary, the Board may require the applicant pay all reasonable expenses for this purpose, in accordance with the Board's regulations and M.G.L. Chapter 44 Section 53G.

General Laws Chapter 44, Section 53G, authorizes zoning boards, planning boards, boards of health, and conservation commissions, acting under authority conferred by G.L. c. 40A, § 9 and 12, c. 41, § 81Q, c. 40B, § 21, c. 111; and c. 40, § 8C, to impose consultant review fees, to disburse the funds collected, and to return unused portions to the applicant. However, the Legislature did not include Boards acting under the authority conferred solely by a local law within the small class of local boards that enjoy the benefits of G.L. c. 44, § 53G. When the Board is reviewing a site plan application based solely on the authority granted under local law, it cannot avail itself of the provisions of G.L. c. 44, § 53G. We suggest that the Town discuss this issue in more detail with Town Counsel.

2. Section 7.5.2, Telecommunication Facilities - General Provisions

Section 7.5.2, was deleted in its entirety and replaced with new text that provides as follows:

> Telecommunication Facilities may be allowed by Special Permit from the Board of Appeals pursuant to Sections 5.2 and Section 7.5. Conditions shall maximize the shared use of any new or existing structures to minimize the required number of such facilities; and shall minimize[e] adverse visual impacts through careful design, siting, and screening. No facility shall be located in a (RS) Residential District. (see: Section 2, Definitions).

Section 7.5.2 must be applied in a manner consistent with Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012, which requires that "[A] state or local government *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." (emphasis added). The Act defines "eligible facilities request" as any request for modification of an existing wireless tower or base station that involves: 1) collocation of new transmission equipment; 2) removal of transmission equipment; or 3) replacement of transmission equipment. The Act applies "[n]otwithstanding section 704 of the Telecommunications Act of 1996." The Act's requirement that a local government "may not deny, and shall approve, any eligible facilities request" means that a request for modification to an existing facility that does not substantially change the physical dimensions of the tower or base station must be approved. Such qualifying requests also cannot be subject to a discretionary special permit.

The Town must apply Section 7.5.2 in a manner consistent with the applicable law outlined above. We also urge the Town to consult closely with Town Counsel regarding the appropriate response to applications for collocation in light of these recent amendments.

Note: Pursuant to G.L. c. 40, § 32, neither general nor zoning by-laws take effect unless the Town has first satisfied the posting/publishing requirements of that statute. Once this statutory duty is fulfilled, (1) general by-laws and amendments take effect on the date these posting and publishing requirements are satisfied unless a later effective date is prescribed in the by-law, and (2) zoning by-laws and amendments are deemed to have taken effect from the

date they were approved by the Town Meeting, unless a later effective date is prescribed in the by-law.

Very truly yours,

MAURA HEALEY
ATTORNEY GENERAL

Nicole B. Caprioli

By: Nicole B. Caprioli
Assistant Attorney General
Municipal Law Unit
10 Mechanic Street, Suite 301
Worcester, MA 01608
(508) 792-7600 ext. 4418
nicole.caprioli@state.ma.us

cc: Town Counsel Gregg J. Corbo

MAURA HEALEY
ATTORNEY GENERAL

THE COMMONWEALTH OF MASSACHUSETTS
OFFICE OF THE ATTORNEY GENERAL
CENTRAL MASSACHUSETTS DIVISION
10 MECHANIC STREET, SUITE 301
WORCESTER, MA 01608

(508) 792-7600
(508) 795-1991 fax
www.mass.gov/ago

February 10, 2015

Trudy L. Reid, Town Clerk
Town of Lynnfield
55 Summer Street
Lynnfield, MA 01940

RE: Lynnfield Fall Annual Town Meeting of October 20, 2014 - Case # 7408
Warrant Articles # 12, 13 and 14 (Zoning)
Warrant Articles # 16 and 17 (General)

Dear Ms. Reid:

Articles 12, 13, 14, 16 and 17 - We approve Articles 12, 13, 14, 16 and 17 from the October 20, 2014 Lynnfield Fall Annual Town Meeting. Our comments regarding Article 14 are provided below.

Article 14 - Article 14 makes a number of changes to the Town's zoning by-laws pertaining to Radio Telecommunication Facilities (RTF) and Personal Wireless Service Facilities (PWSF) including adding new definitions to Section 2, amending Section 7.4, "Site Plan" to add a new sub-section 7.4A "Additional Requirements for Personal Wireless Service Facilities"; and amending Section 8, "Special Permits" to add a new sub-section 8.7, "Siting of Radio Telecommunications Facilities."

I. Applicable Law

The federal Telecommunications Act of 1996, 47 U.S.C. § 332 (7) preserves state and municipal zoning authority to regulate personal wireless service facilities, subject to the following limitations:

1. Zoning regulations "shall not unreasonably discriminate among providers of functionally equivalent services." 47 U.S.C. §332(7) (B) (i) (I)

2. Zoning regulations "shall not prohibit or have the effect of prohibiting the provisions of personal wireless services." 47 U.S.C. § 332 (7) (B) (i) (II).

3. The Zoning Authority "shall act on any request for authorization to place, construct, or modify personal wireless service facilities within a reasonable period of time." 47 U.S.C. § 332 (7) (B) (ii).

4. Any decision "to deny a request to place, construct, or modify personal wireless service facilities shall be in writing and supported by substantial evidence contained in a written record." 47 U.S.C. § 332 (7) (B) (iii).

5. "No state or local government or instrumentality thereof may regulate the placement, construction and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the [Federal Communications] Commission's regulations concerning emissions." 47 U.S.C. § 332(7) (B) (iv).

Federal courts have construed the limitations listed under 47 U.S.C. § 332(7) as follows. First, even a facially neutral by-law may have the effect of prohibiting the provision of wireless coverage if its application suggests that no service provider is likely to obtain approval. "If the criteria or their administration effectively preclude towers no matter what the carrier does, they may amount to a ban 'in effect'…." Town of Amherst, N.H. v. Omnipoint Communications Enters, Inc., 173 F.3d 9, 14 (1st Cir. 1999).

Second, local zoning decisions and by-laws that prevent the closing of significant gaps in wireless coverage have been found to effectively prohibit the provision of personal wireless services in violation of 47 U.S.C. § 332(7). See, e.g., Nat'l Tower, LLC v. Plainville Zoning Bd. of Appeals, 297 F.3d 14, 20 (1st Cir. 2002) ("local zoning decisions and ordinances that prevent the closing of significant gaps in the availability of wireless services violate the statute"); Omnipoint Communications MB Operations, LLC v. Town of Lincoln, 107 F. Supp. 2d 108, 117 (D. Mass. 2000) (by-law resulting in significant gaps in coverage within town had effect of prohibiting wireless services).

Third, whether the denial of a permit has the effect of prohibiting the provision of personal wireless services depends in part upon the availability of reasonable alternatives. See 360 Degrees Communications Co. v. Bd. of Supervisors, 211 F.3d 79, 85 (4th Cir. 2000). Zoning regulations must allow cellular towers to exist somewhere. Towns may not effectively ban towers throughout the municipality, even under the application of objective criteria. See Virginia Metronet, Inc. v. Bd. of Supervisors, 984 F. Supp. 966, 971 (E.D. Va. 1998).

State law also establishes certain limitations on a municipality's authority to regulate wireless communications facilities and service providers. Under General Laws Chapter 40A, Section 3, wireless service providers may apply to the Department of Telecommunications and Cable for an exemption from local zoning requirements. If a telecommunication provider does not apply for or is not granted an exemption under c. 40A, § 3, it remains subject to local zoning requirements pertaining to cellular towers. See Building Comm'r of Franklin v. Dispatch Communications of New England, Inc., 48 Mass. App. Ct. 709, 722 (2000). Also, G.L. c. 40J, § 6B, charges the Massachusetts Broadband Institute with the task of promoting broadband access throughout the state. Municipal regulation of broadband service providers must not frustrate the achievement of this statewide policy.

In addition, Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012 requires that "[A] state or local government *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." (emphasis added). The Act defines "eligible facilities request" as any request for modification of an existing wireless tower or base station that involves: 1) collocation of new transmission equipment; 2) removal of transmission equipment; or 3) replacement of transmission equipment. The Act applies "[n]otwithstanding section 704 of the Telecommunications Act of 1996." The Act's requirement that a local government "may not deny, and shall approve, any eligible facilities request" means that a request for modification to an existing facility that does not substantially change the physical dimensions of the tower or base station must be approved. Such qualifying requests also cannot be subject to a discretionary special permit.

The Town must apply Article 14 in a manner consistent with the applicable law outlined above. In particular, Section 8.7.5.1 requires that PWSF may only be erected upon the grant of a special permit. The Town cannot apply this requirement to eligible facilities requests for modification to existing facilities that qualify for required approval under Section 6409 of the Act. We also urge the Town to consult closely with Town Counsel regarding the appropriate response to applications for collocation in light of these recent amendments.

II. Section 8.7, Siting of Radio Telecommunications Facilities

A. Section 8.7.2, Purpose

Section 8.7.2 provides that the purpose of the by-law is to establish general guidelines for the siting of RTFs. Section 8.7.2 (4) establishes one of the by-law's goals as "[t]o make all RTF locations available for municipal agencies use where feasible."

It is unclear whether Section 8.7.2 (4) would require the Town's use of the RTF, and whether such use would be compensated or uncompensated. When applying the by-law, the Town cannot require an applicant to transfer property to the public without fair compensation. "The Fifth Amendment to the United States Constitution, made applicable to the States through the Fourteenth Amendment, provides that private property shall not 'be taken for public use, without just compensation.'" This protection is "designed to bar Government from forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole." Giovanella v. Conservation Commission of Ashland, 447 Mass. 720, 724 (2006) (*quoting* Armstrong v. United States, 364 U.S. 40, 49 (1960). More recently, the court in Collins v. Stow, 79 Mass. App. Ct. 447 (2011) ruled that a town cannot condition subdivision approval on the dedication of open space for public use and actual conveyance of the land to the Town in exchange for waivers. "Although a planning board's authority under the subdivision control law certainly encompasses, in appropriate circumstances, requiring open space, it does not extend to requiring the transfer of that open space to the public for reasons unrelated to adequate access and safety of the subdivision without providing just compensation." Id. at 453. We suggest that the Town consult with Town Counsel regarding the proper application of Section 8.7.2 (4).

B. Section 8.7.5.4, General

Section 8.7.5.4.1 provides in relevant part that:

> An undertaking shall be required, secured by a BOND appropriate in form and amount for removal of the PWSF within 6 months of cessation of operation of said facility or such other activity which may be appropriate to prevent the structures from becoming a nuisance or aesthetic blights.

The Town must apply any bond proceeds in a manner consistent with state law. Bond proceeds do not become Town funds unless and until the applicant defaults on the obligation under the by-law. Moreover, if the Town must use the bond to pay for removal of a PWSF or for other activity to prevent nuisance or blight, an appropriation is required before expenditure is made to do the work. General Laws Chapter 44, Section 53, provides that "[a]ll moneys received by a city, town or district officer or department, except as otherwise provided by special acts and except fees provided for by statute, shall be paid by such officers or department upon their receipt into the city, town or district treasury." Under Section 53 all moneys received by the Town become a part of the general fund, unless the Legislature has expressly made other provisions that are applicable to such receipt. In the absence of any general or special law to the contrary, performance security funds of the sort contemplated here must be deposited with the Town Treasurer and made part of the Town's general fund, pursuant to G.L. c. 44, § 53. The Town must then appropriate the money for the specific purpose of completing the work required for removal and/or other activities. The Town should consult with Town Counsel regarding the proper application of Section 8.7.5.4.

C. Section 8.7.5.5, Application Procedures

Section 8.7.5.5 pertaining to the Special Permit application provides in relevant part, that:

> The Application Phase of the process begins with the receipt by the SPGA of a complete application including all materials required by the Zoning Bylaw and any applicable regulations.
>
> *****
>
> Within 30 days of receipt, the SPGA or its designee shall review the application for consistency and completeness with respect to the Application Requirements in the bylaw and any applicable regulations and shall notify the Applicant in writing of any deficiency in the completeness of the application.
>
> *****
>
> The SPGA shall take regulatory notice of the Federal Communications Commission (FCC) presumption that the final action of the SPGA on a new Antenna Tower should take no more than 150 days from the date of receipt of the completed application, and that final action on a Collocation or Site Sharing application should take no more than 90 days from the date of receipt of the completed application except upon written

extension of these timelines by mutual agreement between the SPGA and the Applicant.

Section 8.7.5.5 must be applied in a manner consistent with the time limits established in G.L. c. 40A, § 9. General Laws Chapter 40A, Section 9, requires that the special permit granting authority "shall hold a public hearing for which notice has been given as provided in section eleven, on any application for a special permit within sixty-five days from the date of filing of such application. . . . The decision of the special permit granting authority shall be made within ninety days following the date of such public hearing. . . Failure by the special permit granting authority to take final action within . . . ninety days . . . shall be deemed to be a grant of the special permit." (emphasis added).

Pursuant to G.L. c. 40A, § 9, the filing of a special permit application "starts the clock" on the time period within which the special permitting authority must act. Section 8.7.5.5 cannot be applied in a manner that "starts the clock" only when a *completed* application is filed. The Town must apply Section 8.7.5.5 consistent with G.L. c. 40A, § 9. *See* Massachusetts Broken Stone Co. v. Town of Weston, 430 Mass. 637, 642 (2000). The Town should consult with Town Counsel regarding the proper application of Section 8.7.5.5.

Note: Pursuant to G.L. c. 40, § 32, neither general nor zoning by-laws take effect unless the Town has first satisfied the posting/publishing requirements of that statute. Once this statutory duty is fulfilled, (1) general by-laws and amendments take effect on the date these posting and publishing requirements are satisfied unless a later effective date is prescribed in the by-law, and (2) zoning by-laws and amendments are deemed to have taken effect from the date they were approved by the Town Meeting, unless a later effective date is prescribed in the by-law.

Very truly yours,

MAURA HEALEY
ATTORNEY GENERAL
Nicole B. Caprioli

By: Nicole B. Caprioli
Assistant Attorney General
Municipal Law Unit
10 Mechanic Street, Suite 301
Worcester, MA 01608
(508) 792-7600 ext. 4418
nicole.caprioli@state.ma.us

cc: Town Counsel Thomas Mullen

CITY OF CAMBRIDGE, MASSACHUSETTS

PLANNING BOARD

CITY HALL ANNEX, 344 BROADWAY, CAMBRIDGE

January 27, 2016

To: The Board of Zoning Appeal

From: The Planning Board

RE: BZA #9059- 2016, 1815 Massachusetts Avenue

The Planning Board reviewed the Special Permit application for the communication antenna at Lesley University and finds that this proposal is no worse than the current installations. The Planning Board does suggest that the antennas be located in such a way as to not break the roof line when viewed from the street, and that they be painted to match the facades. For example to match either the red brick or the gray stone band around the top of the tower.

[redacted]

BK35367PG188

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QUITCLAIM DEED

Walden Square Limited Partnership, a Massachusetts limited partnership having its principal office at 101 Arch Street, in Boston, Suffolk County Massachusetts for consideration paid and in full consideration of $1,449,468.32 grant to **WSQ LIMITED PARTNERSHIP**, a Massachusetts limited partnership with a principal business address c/o Boston Financial, 101 Arch Street, Boston, Massachusetts with QUITCLAIM COVENANTS that certain parcel of land in Cambridge, Middlesex County, Massachusetts, more fully described in Exhibit A, attached hereto and incorporated herein by this reference, together with all buildings and improvements thereon erected and subject to the matters set forth in Exhibit B, attached hereto and incorporated herein by this referenced.

Said premises are conveyed subject to the mortgage of the Grantor to The National Shawmut Bank of Boston in the original principal amount of $6,700,400.00 dated August 19, 1971 and recorded with Middlesex County Southern District Registry of Deeds at Book 12064, Page 329, as affected by a Confirmatory Mortgage dated August 27, 1971 recorded at Book 12304, Page 609; a Modification Agreement, dated April 1, 1973 recorded at Book 12639, Page 230; a Consolidation Agreement, dated May 24, 1974, recorded at Book 12639, Page 249; an Assignment by Shawmut to Federal National Mortgage Association (FNMA), dated may 24, 1974, recorded at Book 13088, Page 079; and an Assumption Agreement by and between HUD and Walden Square Limited Partnership. (the "First Mortgage")

Said premises are also conveyed subject to a Mortgage from Walden Square Company to the The National Shawmut Bank of Boston in the original principal amount of $55,900.00, dated March 24, 1974, recorded with the Middlesex County Southern District Registry of Deeds at Book 12639, Page 235, as affected by: a Consolidation Agreement, dated May 24, 1974, recorded at Book 12639, Page 248; an Assignment by Shawmut to Federal National Mortgage Association (FNMA), dated May 24, 1974, recorded at Book 12639, Page 264; an Assignment by FNMA to the Secretary of Housing and Urban Development dated October 26, 1976, recorded at Book 13088, Page 079; and by an Assumption Agreement by and between HUD and Walden Square Limited Partnership. (the "Second Mortgage") The outstanding balance of the First Mortgage and Second Mortgage is $4,941,381.68.

Being the same premises conveyed to the Grantor by Deed of Walden Square Apartments Company dated September 18, 1984 and recorded with Middlesex County Southern District Registry of Deeds in Book 15815, Page 56.

103-104 Sherman St Cambridge

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FEE $6609.72
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WITNESS the hand and seal this 18 day of September, 2000.

SIGNED, SEALED AND DELIVERED IN THE PRESENCE OF:

WALDEN SQUARE LIMITED PARTNERSHIP,
a Massachusetts limited partnership
By: The Boston Financial Group Incorporated
Its General Partner

By: _____ (SEAL)
Michael H. Gladstone,
the President and Clerk

COMMONWEALTH OF MASSACHUSETTS

SUFFOLK, ss September 18, 2000

Then personally appeared the above-named Michael H. Gladstone, in his capacity as the President and Clerk of The Boston Financial Group Incorporated, a Massachusetts corporation, the general partner of WALDEN SQUARE LIMITED PARTNERSHIP, a Massachusetts limited partnership, and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of said entity, before me

Notary Public Kirsten L. Pecci
My Commission Expires: 2/5/04

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EXHIBIT "A"

Property Description

Beginning at a point, said point being the intersection of the westerly side line of Raymond Street and the northerly property line of land now or formerly of Leo and Rosemary Bertoli;

Thence, turning and running S06°-46'-30"W by land now or formerly of Leo and Rosemary Bertoli, a distance of eighty-six and no hundredths (86.00) feet to a point;

Thence, turning and running S23°-13'-30"E again by land now or formerly of Leo and Rosemary Bertoli, by land now or formerly of Rita M. and Allen B. Macgillivray and by land now or formerly of Domenic Spartichino, a distance of one hundred sixty-one and seventy-four hundredths (161.74) feet to a point;

Thence, turning and running S63°-59'-13"W by land now or formerly of Cambridge Housing Authority, a distance of one hundred ninety-seven and forty-two hundredths (197.42) feet to a point;

Thence, turning and running N26°-04'-50"W by land now or formerly of the Cambridge Redevelopment Authority, a distance of one hundred forty and ten hundredths (140.10) feet to a point;

Thence, turning and running S63°-55'-10"W again by land now or formerly of the Cambridge Redevelopment Authority, a distance of eighty-four and no hundredths (84.00) feet to a point;

Thence, turning and running N26°-04'-50"W again by land now or formerly of the Cambridge Redevelopment Authority, a distance of twenty-five and no hundredths (25.00) feet to a point;

Thence, turning and running N86°-04'-50"W again by land now or formerly of the Cambridge Redevelopment Authority, and by land now or formerly of Cambridge Friends School, Inc., a distance of one hundred twenty-one and eighty three hundredths (121.83) feet to a point;

Thence, turning and running S64°-03'-05"W again by land now or formerly of Cambridge Friends School, Inc., a distance of three hundred fifty-three and sixty-four hundredths (353.64) feet to a point;

Thence, turning and running N26°-06'-49"W by land now or formerly of Max Wasserman, a distance of forty-six and ninety-seven hundredths (46.97) feet to a point;

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Thence, turning and running S65°-36'-32"W again by land now or formerly of Max Wasserman, a distance of fourteen and thirty-eight hundredths (14.38) feet to a point;

Thence, turning and running N26°-07'-49"W again by land now or formerly of Max Wasserman, a distance of one hundred forty-three and forty-four hundredths (143.44) feet to a point;

Thence, turning and running N75°-12'-28"W again by land now or formerly of Max Wasserman, a distance of eighty-five and sixty-one hundredths (85.61) feet to a point;

Thence, turning and running N02°-26'-18"W by land now or formerly of Anthony P. Di Nardo, a distance of forty-two and fifty hundredths (42.50) feet to a point;

Thence, turning and running S87°-33'-42"W again by land now or formerly of Anthony P. Di Nardo, a distance of eighty and no hundredths (80.00) feet to a point;

Thence, turning and running N02°-26'-18"W along the easterly side line of Sherman Street, a distance of ninety and no hundredth (90.00) feet to a point;

Thence, turning and running N87°-33'-42"E by land now or formerly of Cambridge Electric Light Co., a distance of ninety-five and no hundredths (95.00) feet to a point;

Thence, turning and running N02°-26'-18"W again by land now or formerly of Cambridge Electric Light Co., a distance of eighty-eight and fifty hundredths (88.50) feet to a point;

Thence, turning and running N87°-33'-42"E by land now or formerly of Ancietto Filomena and Blair Place (a private way), a distance of one hundred thirty-five and no hundredths (135.00) feet to a point;

Thence, turning and running N02°-26'-18"W by the easterly side line of Blair Place (a private way), a distance of fourteen and eighty-nine hundredths (14.89) feet to a point;

Thence, turning and running N87°-33'-42"E, by land now or formerly of Blanche M. McGuinness, a distance of one hundred forty and no hundredths (140.00) feet to a point;

Thence, turning and running N02°-26'-18"W again by land now or formerly of Blanche M. McGuinness, a distance of fifty-six and no hundredths (56.00) feet to a point,

Thence, turning and running S79°-25'-19"E by land now or formerly of the Cambridge Redevelopment Authority, a distance of six hundred sixty-six and thirty-five hundredths (666.35) feet to a point;

Thence, turning and running S23°-13'-30"E along the westerly side line of Raymond Street, a distance of seventy and no hundredths (70.00) feet to the point of beginning.

Containing three hundred seven thousand, two hundred eighty-three (307,283) square feet more or less.

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A parcel of land situated in Cambridge, Middlesex County, Massachusetts, shown as Tract 2 on a plan entitled "Cambridge Redevelopment Authority, Walden Square Urban Renewal Area, Project No. Mass. R-135, Tract Disposition and Easement plan", dated August 1971, prepared by Fay, Spofford & Thorndike, Inc., Engineers, Lexington, Massachusetts, which plan is recorded with Middlesex South District Registry of Deeds at Book 12064, Page 329 and which parcel is more particularly bounded and described as follows:

Tract 2

Beginning at a point, said point being the intersection of the northerly property line of land now or formerly of Cambridge Housing Authority and the easterly property line of land now or formerly of Cambridge Redevelopment Authority (Tract 4);

Thence running N26°-04'-50"W by land now or formerly of Cambridge Redevelopment Authority (Tract 4), a distance of one hundred forty and no hundredths (140.00) feet to a point;

Thence turning and running N63°-55'-10"E by land now or formerly of Cambridge Redevelopment Authority (Tract 1), a distance of eighty-four and no hundredths (84.00) feet to a point;

Thence turning and running S26°-04'-50"E again by land now or formerly of Cambridge Redevelopment Authority (Tract 1), a distance of one hundred forty and ten hundredths (140.10) feet to a point;

Thence turning and running S63°-59'-13"W by land now or formerly of Cambridge Housing Authority, a distance of eighty-four and no hundredths (84.00) feet to a point of beginning.

Containing eleven thousand seven hundred sixty-four (11,764) square feet, more or less.

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EXHIBIT B

The premises described in Exhibit A of this Deed are conveyed subject to the following matters to the extent they are presently in force and applicable:

1. Terms and provisions of a Land Disposition Contract dated August 27, 1981, by and between Walden Square Apartments Company and Cambridge Redevelopment Authority recorded in the Middlesex (South) Registry of Deeds in Book 12064, Page 245.

2. Easements, restrictions, covenants, and agreements set forth in the Deed recorded with said Deeds in Book 12064, Page 316.

3. Mortgage from Walden Square Apartments Company to the National Shawmut Bank of Boston, N.A., in the original principal amount of $6,700,400.00, dated August 19, 1971, and recorded with said Deeds in Book 12064, Page 329, as confirmed by a Mortgage recorded with said Deeds in Book 12304, Page 609, and amended by a Modification Agreement dated April 1, 1973, recorded with said Deeds in Book 12639, Page 230. Also another Mortgage to the National Shawmut Bank of Boston in the original principal amount of $55,900.00, recorded with said Deeds in Book 12639, Page 235. The aforesaid Mortgages were consolidated pursuant to a Consolidation Agreement dated May 24, 1974, and recorded with said Deeds in Book 12639, Page 249. Said Mortgages were assigned to the Federal National Mortgage Association by an Assignment recorded with said Deeds in Book 12639, Page 264, and thereafter to the Secretary of Housing and Urban Development by an Assignment recorded with said Deeds in Book 13088, Page 079.

4. Regulatory Agreement for Limited Distribution Mortgagors dated August 19, 1971, between Walden Square Apartments and the Secretary of Housing and Urban Development recorded with said Deeds in Book 12064, Page 341, as amended by an instrument recorded with said Deeds in Book 12639, Page 259.

5. Notice of Lease to L&D Laundries, Inc., dated July 10, 1973, and recorded with said Deeds in Book 12495, Page 340.

6. Electrical Utility Easement to the Cambridge Electric Light Company recorded with said Deeds in Book 12990, Page 651.

7. Liens for unpaid real estate taxes, if any.

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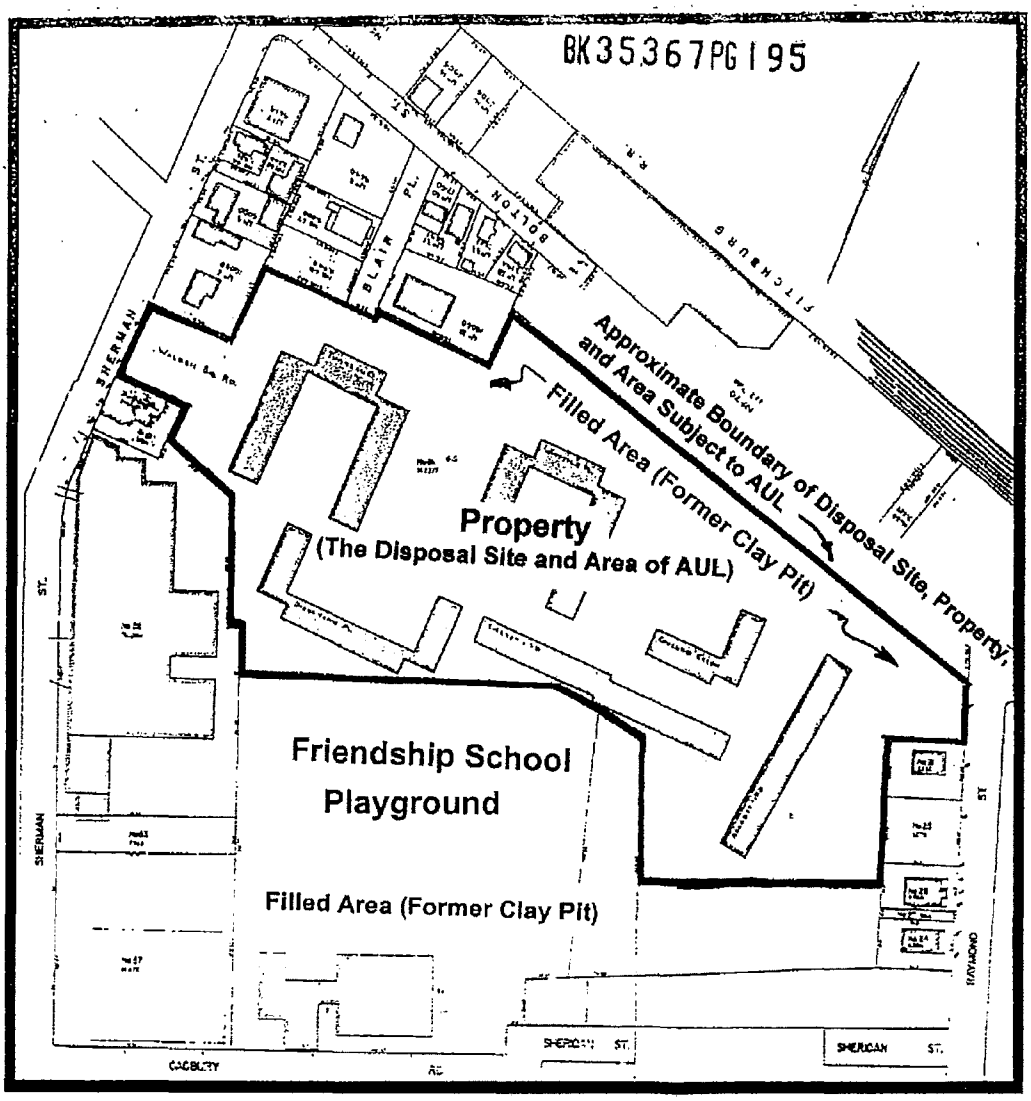
EXHIBIT B

Sketch Plan Showing the Relationship of Property to Disposal Site



21 Walden Square Rd., Cambridge, MA	**Relationship of Property to Disposal Site and Area of AUL**	
EXHIBIT B	Preparation Date: 2/28/02	**Action Environmental, Inc.** **17 Green Street** **Waltham Massachusetts, 02451**
Reference: Part of City of Cambridge Assessor's Plan 203, showing the Subject Property and Site developed with Walden Square Apartments and relationship to adjacent properties [Approximate Scale: 1 inch = 160 feet] Prepared by: DB, Reviewed by: RH		

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EXHIBIT C

AUL Opinion

(Narrative AUL Opinion Summarizing nature of contamination, how the contamination came to be located on the property and reflecting permitted site activities and uses, activities and uses inconsistent with No Significant Risk, and obligations and conditions)

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EXHIBIT C
(AUL Opinion)

In accordance with the MCP at 310 CMR 40.01074, an Activity and Use Limitation (AUL) Opinion has been prepared by the LSP-of-Record to support this Notice of Activity and Use Limitation ("Notice") for the entire property located at 21 Walden Square Road, Cambridge, Massachusetts (Property). At the time of the recording of this Notice, the area subject to the AUL is occupied by: a residential apartment complex; associated landscaping consisting of trees, shrubs, and lawns; designated playground areas; paved parking areas; and paved roadways.

Site History

Research into available government and historic records indicates that a sequence of events resulted in contaminants being located at the Property. From the Colonial period through the mid-1900s, glacial clay deposits present at the Property and nearby properties were mined to make building bricks. From the mid 1800s to the mid 1900s, an industrial complex of brick yards, drying kilns, and clay-pits were present in the area of the Property. When the clay pits were exhausted, they were filled with materials and wastes from a number of sources. Specific sources of the fill presently underlying the Property are not known. Clay pits in the area generally were partly filled with debris and excess soil from nearby construction sites; municipal, private, and industrial refuse; and ash and cinders from municipal incinerators, one of which was located near the Property. Following filling, the former clay pits were redeveloped with industrial and commercial buildings, housing projects (like the Property), residences, and athletic fields. A 1969 aerial photograph indicates that at that time, at least one open pit remained on the Property. This pit and any other topographic depressions remaining on the Property presumably were filled in prior to the 1971 construction of the apartment complex that presently occupies the Property.

The Property was placed on the Massachusetts Contingency Plan (MCP) List of Locations to be Investigated (LTBI) because the U.S. Environmental Protection Agency (USEPA) identified the area encompassing the Property as a potential hazardous waste disposal area based on the large amount of fill material including ash and cinders placed in the former clay pits, including possible contributions from the local municipal incinerator and area chemical and manufacturing facilities. Several other properties in the area also were placed on the LTBI for the same reasons.

Subsequent environmental investigations at the Property confirmed that it is a Disposal Site. Except for possible oil and/or hazardous wastes associated with previous landfilling, no other releases were identified or are known to have occurred associated with the Site. Environmental investigations identified several contaminants at the Site that exceed current applicable MCP Reportable Concentrations — including arsenic, lead, and several polynuclear aromatic hydrocarbons (PAHs) in soil samples and petroleum hydrocarbons in a groundwater sample. Tier Classification was performed for the Site, and the Site was classified as a Tier II Disposal Site.

Phase IV remedial activities were completed at the Site, resulting in a Permanent Solution with the implementation of this AUL. The Phase IV remedial action included the removal of contaminated near-surface (0-3 feet deep) soil from a designated playground area and from a localized Hot Spot in a lawn area on the Property, with the emplacement of a geotextile barrier at least three feet below the playground surface. After completion of the remedial action, a MCP Method 3 Risk Characterization was used to demonstrate that a condition of No Significant Risk had been achieved at the Property and Site with the implementation of an AUL.

Reason for Activity and Use Limitations

The Phase IV remedial action (described in Section 4.0 of the RAO supporting document) was conducted in accordance with the MCP. Approximately 1,100 cubic yards of contaminated soil were removed from the Site under the Phase IV remedial action to reduce risks posed by near-surface contaminants of concern at the Site. The removal of contaminated soil from the vicinity of the identified Hot Spot (SS-8) and from a designated playground area has reduced the level of risk associated with the Site. However, assessment activities have indicated soil contaminants are widespread at depth — where further excavation would be difficult, extremely expensive, and disruptive to the developed Property. Excavation under the onsite apartment buildings would be difficult and would require extensive structural supports at extreme cost.

A MCP Method 3 Risk Characterization for current conditions (post-excavation) indicates that a condition of No Significant Risk has been attained for the Property for surface soils (0-3 feet) and groundwater. The implemented AUL restricts access by potential receptors to contaminated soils below a depth of three feet on the entire Property to ensure that a level of No Significant Risk continues to exist for current and future foreseeable Site activities and uses.

The AUL Opinion describing Activities and Uses Consistent and Inconsistent with the AUL Opinion and Obligations and Conditions follows:

1. Activities and Uses Consistent with the AUL Opinion. The AUL Opinion provides that a condition of No Significant Risk to health, safety, public welfare or the environment exists for any foreseeable period of time (pursuant to 310 CMR 40.0000) so long as any of the following activities and uses occur on the Property:

(i) Any activity, including any residential, commercial, recreational, day care, playground, or industrial use, including but not limited to landscaping and routine maintenance of landscaped areas, that does not cause or result in direct contact with, disturbance of, and/or relocation of potentially contaminated soil at depths greater than 3 feet below the current land surface grade;

(ii) In the playground areas, digging is permitted to a depth of three feet below grade or down to geotextile or pavement barrier;

(iii) If the use of the Property changes, commercial or industrial activities are permissible on the Property;

(iv) Excavation associated with short term (3 months or less) subsurface utility work and/or construction which is likely to disturb potentially contaminated soil located greater than 3 feet below surface grade provided that it is conducted in accordance with a Soil Management Plan prepared and implemented in accordance with Obligation (i) of this Notice prior to the commencement of such activity;

(v) Excavation associated with long term (more than 3 months) subsurface utility work and/or construction which is likely to disturb oil-contaminated soil located greater than 3 feet below surface grade provided that it is conducted in accordance with a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (i) and (ii) of this Notice prior to the commencement of such activity;

(vi) Such other activities or uses which, in the Opinion of an LSP, shall present no greater risk of harm to health, safety, public welfare or the environment than the activities and uses set forth in this Paragraph; and

(vii) Such other activities and uses not identified in Paragraph 2 as being Activities and Uses Inconsistent with the AUL.

2. Activities and Uses Inconsistent with the AUL Opinion. Activities and uses which are inconsistent with the objectives of this Notice of Activity and Use Limitation and which, if implemented at the Property, may result in a significant risk of harm to health, safety, public welfare or the environment or in a substantial hazard, are as follows:

(i) Performing borings, excavations, or any other activities that may result in exposure to soils below a depth of three feet on the Property without implementing the appropriate protective measures specified in Section 3 of this Notice;

(ii) Fruit and vegetable gardening prohibited on the designated AUL area to prevent the potential for ingestion of contaminants that may bioaccumulate; and

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(iii) Relocation of oil-contaminated soil currently located greater than 3 feet below surface grade, unless such activity is first evaluated by an LSP who renders an Opinion which states that such relocation is consistent with maintaining a condition of No Significant Risk at the Site;

(iv) The lowering of the current surface grade which would cause the potentially contaminated soil located greater than 3 feet below surface grade to become shallower in depth..

3. Obligations and Conditions Set Forth in the AUL Opinion. If applicable, obligations and/or conditions to be undertaken and/or maintained at the Property to maintain a condition of No Significant Risk as set forth in the AUL Opinion shall include the following:

(i) A Soil Management Plan must be prepared by an LSP and implemented prior to the commencement of any activity which is likely to disturb potentially contaminated soil located greater than 3 feet below surface grade. The Soil management Plan should describe appropriate soil management, characterization, storage, transport, and disposal procedures in accordance with the provisions of the MCP cited at 310 CMR 40.0030 *et seq.* and include a description of the engineering controls air monitoring procedures necessary to ensure that workers and receptors in the vicinity are not affected by fugitive dust of particulates. Workers who may come in contact with the oil-contaminated soil should be appropriately trained on the requirements of the Plan and the Plan must remain available on-site throughout the course of the project;

(ii) A Health and Safety Plan must be prepared and implemented prior to the commencement of any activity which is likely to disturb oil-contaminated soil located greater than 3 feet below surface grade. The Health and Safety Plan must be prepared by a Certified Industrial Hygienist or other qualified individual appropriately trained in worker health and safety procedures and requirements. The Plan should clearly identify the location of the oil-contaminated soil and specifically identify the types of personal protective equipment, monitoring devices, and engineering controls necessary to prevent workers, residents and other potential receptors are not exposed to oil through ingestion, dermal contact, and/or inhalation of particulate dusts. Workers who may come in contact with the oil-contaminated soil should be appropriately trained on the requirements of the Plan, and the Plan must remain available on-site throughout the course of the project;

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(iii) To prevent possible human contact with soil below a depth of 3 feet, present landscaped elevations must be generally maintained and erosion prevented. Any excavations performed in the upper 3 feet, must be promptly backfilled with clean soil when the purpose of the excavation has ended to maintain a 3-feet thickness of clean soil above potentially contaminated soil;

(iv) The potentially contaminated soil located greater than 3 feet below surface grade must remain at the same depth and may not be relocated, unless such activity is first appropriately evaluated by an LSP who renders an Opinion which states that such activity poses no greater risk of harm to health, safety, public welfare, or the environment and ensures that a condition of No Significant Risk is maintained.

The activities, uses, and/or exposures upon which this AUL Opinion is based shall not change at any time without prior evaluation by an LSP in accordance with 310 CMR 40.1080 *et seq.*, and without additional response actions, if necessary, to achieve or maintain a condition of No Significant Risk or to eliminate substantial hazards.

Marcia J. Berger, LSP #4667

April 9, 2002
Date

[LSP SEAL]

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EXHIBIT D

AUL Opinion Form (BWSC-114)

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-114

ACTIVITY & USE LIMITATION (AUL) OPINION FORM

Pursuant to 310 CMR 40.1070 - 40.1084 (Subpart J)

Release Tracking Number
3 - 1656

120

COMPLETE THIS FORM AND ATTACH AS AN EXHIBIT TO THE AUL DOCUMENT TO BE RECORDED AND/OR REGISTERED WITH THE REGISTRY OF DEEDS AND/OR LAND REGISTRATION OFFICE.

BK35367PG203

A. LOCATION OF DISPOSAL SITE AND PROPERTY SUBJECT TO AUL:

Disposal Site Name: WALDEN SQUARE APARTMENTS

Street: 21 WALDEN SQUARE ROAD Location Aid: SHERMAN STREET

City/Town: CAMBRIDGE ZIP Code: 02140

Address of property subject to AUL, if different than above. Street: _____

City/Town: _____ ZIP Code: _____

B. THIS FORM IS BEING USED TO: (check one)

☒ Provide the LSP Opinion for a **Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1074 (complete all sections of this form).

☐ Provide the LSP Opinion for an **Amended Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1081(4) (complete all sections of this form).

☐ Provide the LSP Opinion for a **Termination of a Notice of Activity and Use Limitation**, pursuant to 310 CMR 40.1083(3) (complete all sections of this form).

☐ Provide the LSP Opinion for a **Grant of Environmental Restriction**, pursuant to 310 CMR 40.1071, (complete all sections of this form).

☐ Provide the LSP Opinion for an **Amendment of Environmental Restriction**, pursuant to 310 CMR 40.1081(3) (complete all sections of this form).

☐ Provide the LSP Opinion for a **Release of Environmental Restriction**, pursuant to 310 CMR 40.1083(2) (complete all sections of this form).

C. LSP OPINION:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this submittal, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and (iii) the provisions of 309 CMR 4.03(5), to the best of my knowledge, information and belief,

> *if Section B indicates that a Notice of Activity and Use Limitation is being registered and/or recorded*, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1074(1)(b);

> *if Section B indicates that an Amended Notice of Activity and Use Limitation is being registered and/or recorded*, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1080(1) and 40.1081(1);

> *if Section B indicates that a Termination of a Notice of Activity and Use Limitation is being registered and/or recorded*, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1083(3)(a);

> *if Section B indicates that a Grant of Environmental Restriction is being registered and/or recorded*, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1071(1)(b);

> *if Section B indicates that an Amendment to a Grant of Environmental Restriction is being registered and/or recorded*, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1080(1) and 40.1081(1);

> *if Section B indicates that a Release of Grant of Environmental Restriction is being registered and/or recorded*, the Activity and Use Limitation that is the subject of this submittal (i) is being provided in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (ii) complies with 310 CMR 40.1083(3)(a).

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

☐ Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.

SECTION C IS CONTINUED ON THE NEXT PAGE.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-114

ACTIVITY & USE LIMITATION (AUL) OPINION FORM

Pursuant to 310 CMR 40.1070 - 40.1084 (Subpart J)

Release Tracking Number
3 - 1656

129

C. LSP OPINION: (continued)

LSP Name: MARCIA J. BERGER LSP #: 4667 Stamp:

Telephone: 781-893-9922 Ext.:

FAX: 781-893-6622

LSP Signature: Marcia J Berger

Date: April 9, 2002

COMMONWEALTH OF MASSACHUSETTS
MARCIA J. BERGER
#4667
REGISTERED
LICENSED SITE PROFESSIONAL

BK35367PG204

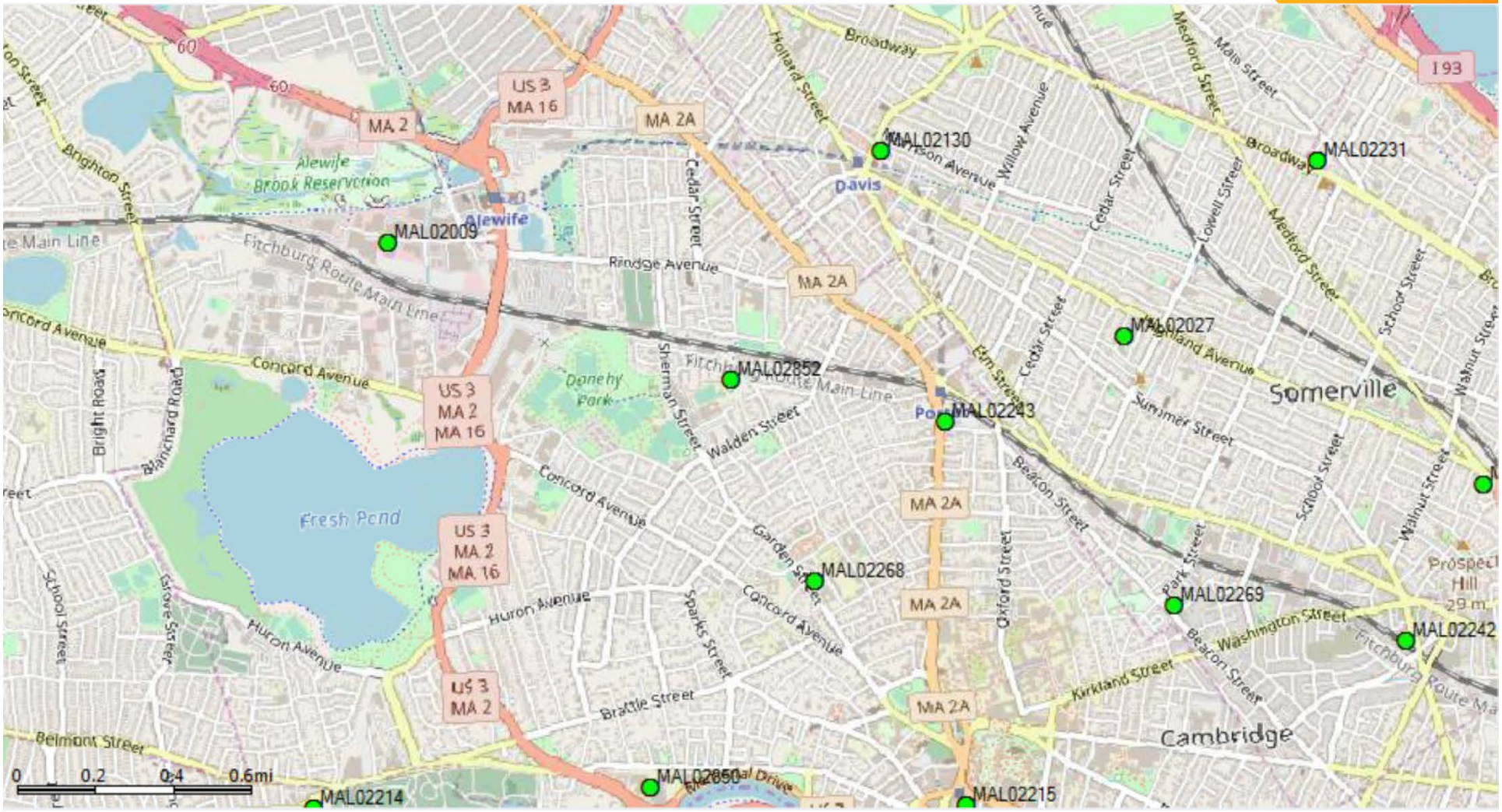
YOU MUST COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY FIND THE DOCUMENT TO BE INCOMPLETE.

Rethink Possible

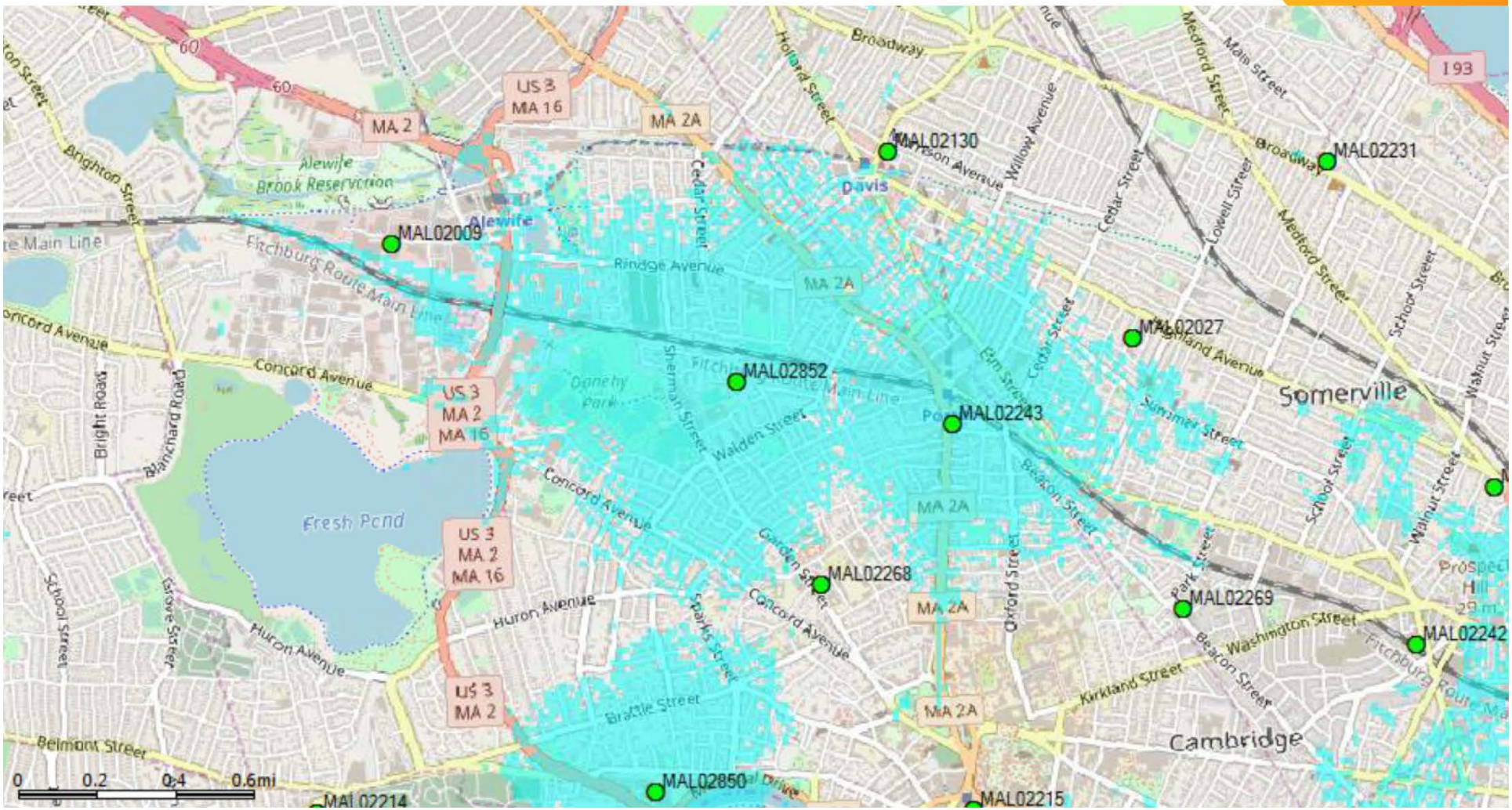
MAL02852 LTE AWS Plots

- Zoning Plots

Current LTE AWS Band Coverage



Proposed New LTE AWS Band Coverage



City of Cambridge

MASSACHUSETTS

BOARD OF ZONING APPEAL

831 Mass Avenue, Cambridge, MA.
(617) 349-6100

CASE NO: BZA-002668-2014

LOCATION: 102 Sherman Street, Cambridge, MA — Residence C-2 Zone

PETITIONER: Centerline Communications, LLC
C/o Derek Patton

PETITION: Special Permit: AT&T proposes to add twelve (12) antennas on the building rooftop. All antennas will be façade mounted, eight (8) to existing elevator room and four (4) to proposed equipment shelter. Antennas and proposed shelter will be painted to match existing building.

VIOLATION: Art. 4.000, Sec. 4.32.G.1 & Sec. 4.40 (Footnote 49) (Telecommunication Facility). Art. 10.000, Sec. 10.40 (Special Permit).

DATE OF PUBLIC NOTICE: November 21 & 28, 2014

DATE OF PUBLIC HEARING: December 5, 2013, January 30, 2014, February 13, 2014

MEMBERS OF THE BOARD:

CONSTANTINE ALEXANDER – CHAIR	✓
TIMOTHY HUGHES – VICE-CHAIR	✓
BRENDAN SULLIVAN	
THOMAS SCOTT	✓
JANET O. GREEN	✓

ASSOCIATE MEMBERS:

DOUGLAS MYERS	
SLATER W. ANDERSON	
LINDSEY T. THORNE-BINGHAM	
ANDREA A. HICKEY	
ARCH HORST	✓

Members of the Board of Zoning Appeal heard testimony and viewed materials submitted regarding the above request for relief from the requirements of the Cambridge Zoning Ordinance. The Board is familiar with the location of the petitioner's property, the layout and other characteristics as well as the surrounding district.

WSQ, LP
BK 31876 Pg 596

Case No. BZA-002668-2013
Location: 102 Sherman Street
Petitioner: Centerline Communications. LLC c/o Derek Patton

On February 13, 2014, Petitioner Derek Patton appeared before the Board of Zoning Appeal with his attorney Susan Roberts requesting a special permit in order to add twelve antennas on the roof, where eight antennas would be façade mounted to the existing elevator room and four antennas would be façade mounted to a proposed equipment shelter. The Petitioner requested relief from Article 4, Section 4.32.g.1 of the Cambridge Zoning Ordinance ("Ordinance"). The Petitioner submitted application materials including information about the project, plans, and photographs.

Ms. Roberts stated that AT&T was properly licensed to operate a telecommunications facility. She stated that the visual impacts of the facility had been minimized by painting it to match the building. She stated that while the site was in a residential zone, non residential uses such as office, retail, industry, and open space predominated in the neighborhood. She stated that no traffic would be created and that there would be no adverse impacts on the neighbors.

The Chair asked if anyone wished to be heard, no one indicated such. The Chair read a letter of support from the Planning Board with suggestions that the Petitioner had followed.

After discussion, the Chair moved that the Board grant the special permit for relief in order to add twelve antennas on the roof, where eight antennas would be façade mounted to the existing elevator room and four antennas would be façade mounted to a proposed equipment shelter based on the finding that there was a demonstrated public need for the facility at the proposed location in order to eliminate reoccurring dead spots and to improve the telecommunications services in the area. The Chair moved that the Board find that there were no alternative functionally suitable sites in nonresidential districts available. The Chair moved that the Board find that the character of the installation was consistent with prevailing uses in the area. The Chair moved that the Board find that nonresidential uses predominated in the vicinity of the proposed location, and that the telecommunication facility was not inconsistent with the character that prevailed in the surrounding neighborhood. The Chair moved that the Board find that traffic generated or patterns of access or egress would not cause congestion, hazard, or substantial change in established neighborhood character. The Chair moved that the Board find that telecommunications antenna needed minimal maintenance, typically once a month servicing. The Chair moved that the Board find that the continued operation and development of adjacent uses would not be adversely affected by the nature of the installation. The Chair moved that the

Board find that there were other telecommunication antennas in the area and that the continued development of uses in the neighborhood would not be affected by one more telecommunications installation. The Chair moved that the Board find that no nuisance or hazard would be created to the detriment of the health, safety, and welfare of the occupant or the citizens of the city. The Chair moved that the Board find that the proposed use would not impair the integrity of the district or adjoining district or otherwise derogate from the intent and purpose of the Ordinance. The Chair moved that the Board find that the project had the support of the Planning Board. The Chair moved that the Board find that there would be no detrimental impact on the neighborhood. The Chair moved that the Board grant the Special Permit subject to the following conditions:

1. that the work proceed in accordance with plans submitted by the Petitioner for option 2, dated February 7, 2014, numbered T1, Z1, Z2, Z3, and Z4, with the first page initialed by the Chair,
2. that the work proceed in accordance with photo simulations submitted by the Petitioner identified as option 2, taken September 13, 2013, with the first page initialed by the Chair,
3. that the equipment be maintained in its initial condition and not deteriorate to the visual detriment of the city,
4. that should the antennas not be used for a period of six months or more, they be removed and the building be restored to its previous condition to the extent reasonably practical,
5. that the generator proposed to be installed on the ground comply with all codes and ordinances, including the Cambridge Noise Control Ordinance.

The five member Board voted unanimously in favor of granting the special permit (Alexander, Hughes, Scott, Green, and Horst). Therefore, the special permit is granted.

The Board based its decision upon all the information presented, the above findings and upon the following:

1) The meeting of the requirements of the Ordinance;
2) Traffic generated or patterns of access or egress would not cause congestion, hazard, or substantial change in the established neighborhood character;
3) The continued operation of or the development of adjacent uses as permitted in the Ordinance would not be adversely affected by the nature of the proposed uses;
4) Nuisance or hazard would not be created to the detriment of the health, safety and /or welfare of the occupants of the proposed use;
5) The proposed use would not impair the integrity of the district or adjoining district or otherwise derogate from the Ordinance, and in fact would be a significant improvement to the structure and benefit the neighborhood, and;

6) The new use or building construction is not inconsistent with the Urban Design Objectives set forth in Section 19.30 of the Cambridge Zoning Ordinance.

The Board of Zoning Appeal is empowered to waive local zoning regulations only. This decision therefore does not relieve the petitioner in any way from the duty to comply with local ordinances and regulations of the other local agencies, including, but not limited to the Historical Commission, License Commission and/or compliance with requirements pursuant to the Building Code and other applicable codes.

Constantine Alexander, Chair

Attest: A true and correct copy of decision filed with the offices of the City Clerk and Planning Board on 3/14/14 by Maria Pacheco, Clerk.

Twenty days have elapsed since the filing of this decision.

No appeal has been filed ✓.

Appeal has been filed and dismissed or denied.

Date: April 9, 2014 Donna P. Lopez City Clerk.

City of Cambridge

MASSACHUSETTS

BOARD OF ZONING APPEAL

2018 JUL 25 AM 11:41

831 Mass Avenue, Cambridge, MA.
(617) 349-6100

OFFICE OF THE CITY CLERK
CAMBRIDGE, MASSACHUSETTS

Board of Zoning Appeal Waiver Form

The Board of Zoning Appeal
831 Mass Avenue
Cambridge, MA 02139

RE: Case # BZA - 016938-2018.

Address: 102 Sherman St.

Owner: WSC, LLC

I _____, *Owner,* _____,
(Print Owner Name) *(Print Petitioner Name)*

Petitioner or Ryan Lynch, *Petitioner's and/or Owner's*
(Print Agent/Representative Name)

Agent or Representative, hereby waives the Petitioner's and/or Owner's right to a Decision by the Board of Zoning Appeal on the above referenced Case # BZA-016938-2018 *within the time period as required by Section 9 or Section 15 of the Zoning Act of the Commonwealth of Massachusetts, Massachusetts General Laws, Chapter 40A, and/or Section 6409 of the federal Middle Class Tax Relief and Job Creation Act of 2012, codified as 47 U.S.C. §1455(a), or any other relevant state or federal regulation or law, as applicable, until* _____, *20*____.

Date: 7/24/18

Signature

Ryan Lynch
Print Name

☐ *Owner*
☐ *Petitioner*
☑ *Petitioner's and/or Owner's Agent or Representative*

CAMBRIDGE HISTORICAL COMMISSION

831 Massachusetts Avenue, 2nd Floor, Cambridge, Massachusetts 02139
Telephone: 617 349 4683 TTY: 617 349 6112
E-mail: histcomm@cambridgema.gov URL: http://www.cambridgema.gov/Historic

Jurisdiction Advice

To the Owner of Property at 102 Sherman Street

The above-referenced property is subject to the jurisdiction of the Cambridge Historical Commission (CHC) by reason of the status referenced below:

__ Old Cambridge Historic District
__ Fort Washington Historic District
(M.G.L. Ch. 40C, City Code §2.78.050)
__ Avon Hill Neighborhood Conservation District
__ Half Crown – Marsh Neighborhood Conservation District
__ Harvard Square Conservation District
__ Mid Cambridge Neighborhood Conservation District
__ Designated Landmark
__ Property is being studied for designation: _____
(City Code, Ch. 2.78., Article III, and various City Council Orders)
__ Preservation Restriction or Easement (as recorded)
__ Structure is fifty years or more old and therefore subject to CHC review of any application for a demolition permit, if one is required by ISD. (City Code, Ch. 2.78, Article II). See the back of this page for definition of demolition.
_X_ No jurisdiction: not a designated historic property and the structure is less than fifty years old.
__ No local jurisdiction, but the property is listed on the National Register of Historic Places; CHC staff is available for consultation, upon request.
Staff comments: _____

The Board of Zoning Appeal advises applicants to complete Historical Commission or Neighborhood Conservation District Commission reviews before appearing before the Board.

If a line indicating possible jurisdiction is checked, the owner needs to consult with the staff of the Historical Commission to determine whether a hearing will be required.

CHC staff initials SLB Date July 16, 2018

Received by Uploaded to Energov Date July 16, 2018
Relationship to project BZA 16938-2018

cc: Applicant
Inspectional Services Commissioner

Demolition Delay Ordinance and Application Information

The Demolition Delay Ordinance (Chapter 2.78, Article II of the Cambridge Municipal Code) was adopted by the City Council in 1979 to afford public review of demolition permit applications for potentially significant buildings. When the Historical Commission determines that a building is significant and should be preserved, demolition will be delayed for up to six months so that solutions can be sought to preserve the building indefinitely. The Ordinance covers all buildings over 50 years old, city-wide. The Historical Commission archives provide dates of construction for all properties in the City.

Demolition is defined in the ordinance as "the act of pulling down, destroying, removing or razing a building or commencing the work of total or substantial destruction with the intent of completing the same." The Inspectional Services Commissioner has provided further guidelines to outline what actions require a demolition permit. **In addition to complete demolition of a building, the following actions may require a demolition permit,**

- **removal of a roof,**
- **removal of one side of a building,**
- **gutting of a building's interior to the point where exterior features (windows, etc.) are impacted, and**
- **removal of more than 25% of a structure.**

Please contact the building inspector or a staff member of the Historical Commission if you have questions about whether a demolition permit is required for a particular project.

Demolition permit applications can be obtained from the Inspectional Services Department. The completed application should be submitted to the Historical Commission, where the staff will review the application. If the Executive Director of the Historical Commission makes an initial determination that the building is significant, a public hearing will be scheduled with Historical Commission. If the staff makes an initial determination that the building is not significant, the application is released for further review by the Building Commissioner.

More information about the demolition permit application procedures is available on the Historical Commission's web site or by calling or dropping by the Historical Commission office.

July 2003

Cambridge Historical Commission
831 Massachusetts Ave., 2nd Fl.
Cambridge, MA 02139
Ph: 617/349-4683 or TTY: 617/349-6112
http://www.cambridgema.gov/Historic

102 Sherman St.

102 Sherman St. 195

Petitioner

202-44
NELSON, JEAN MARC
189 RAYMOND ST
CAMBRIDGE, MA 02140

202-130
MUIR, STEPHEN & KATHERINE BECKER
205 RICHDALE AVE., # A/1
CAMBRIDGE, MA 02140

SMARTLINK, LLC
C/O RYAN LYNCH, AGENT FOR AT&T
85 RANGEWAY RD. BLDG 3, Suite 102
NORTH BILLERICA, MA 01862

202-130
ZEIN, HAIKEL
129-205 RICHDALE AVE., #A/3
CAMBRIDGE, MA 02140

202-130
BUBRISKI, JENNIFER
205 RICHDALE AVE., UNIT #A4
CAMBRIDGE, MA 02140

202-130
RAHMAN, MAHMOODUR & SAIRA S. YUNUS
205 RICHDALE AVE. UNIT#A/5
CAMBRIDGE, MA 02140

202-130
VAILLANT, ELIZA
129-205 RICHDALE AVE.,#A/6
CAMBRIDGE, MA 02140

202-130
HARTMAN, LISA
205 RICHDALE AVE. UNIT#A/7
CAMBRIDGE, MA 02140

202-130
SIZER, JUDITH R.
205 RICHDALE AVE., UNIT# A/8
CAMBRIDGE, MA 02140

202-130
LIPPERT, SARAH A.
205 RICHDALE AVE. UNIT#A9
CAMBRIDGE, MA 02140

202-130
WESSLER, MATTHEW W. & SHARON Y. WONG
189 RICHDALE AVE.UNIT#B/1
CAMBRIDGE, MA 02140

202-130
ANTONUCCIO, ROBERT M.
189 RICHDALE AVE. #B2
CAMBRIDGE, MA 02140

202-130
KEILMAN, JEFFREY& KATHERINE E. BUBRISKI
189 RICHDALE AVE. UNIT#B/3
CAMBRIDGE, MA 02140

202-130
TIERNEY, KEVIN & KIMBERLY KNICKLE TIERNEY
206 BROAD MEADOW RD.
NEEDHAM, MA 02192

202-130
LUM, VICTOR.
189 RICHDALE AVE., UNIT# B/5
CAMBRIDGE, MA 02140

202-130
CHONG, HENRY H.W.
189 RICHDALE AVE., UNIT #B6
CAMBRIDGE, MA 02140

202-130
WEIGELE, PETER & REBECCA PYE
189 RICHDALE AVE. UNITB/7
CAMBRIDGE, MA 02140

202-130
MITHEN, DAVID J.
189 RICHDALE AVE. UNIT#B/8
CAMBRIDGE, MA 02140

202-130
UNGER, BARRY
129-205 RICHDALE AVE., #B-9
CAMBRIDGE, MA 02140

202-130
LONG, JANET, A.,
TRUSTEE THE LONG FAMILY NOM TRUST
205 RICHDALE AVE., #A/10
CAMBRIDGE, MA 02140

202-130
YOUNG, JOAN F.,
TRUSTEE OF FISHER NOMINEE REALTY TRUST,
2425 BUFFALO RD.
RUMNEY, NH 03266

202-130
POLZ, MARTIN F. & JANE M. COTE-POLZ
205 RICHDALE AVE. UNIT#A-12
CAMBRIDGE, MA 02140

202-130
ADAMJEE, RIAZ & SAEEDA TAHER CARRIMJEE
205 RICHDALE AVE., #A/13
CAMBRIDGE, MA 02140

202-130
MOSES, JOANNE C.
205 RICHDALE AVE., #A-14
CAMBRIDGE, MA 02140

202-130
ASHAR, HIMADRAYA & SHALINI GAUTAM
205 RICHDALE AVE. A/15
CAMBRIDGE, MA 02140

202-130
BERKEL, LINDA A.
205 RICHDALE AVE., UNIT# A/16
CAMBRIDGE, MA 02140

202-130
ROSENBLUM, DEBRA
205 RICHDALE AVE., UNIT# A/17
CAMBRIDGE, MA 02140

202-130
NG, KWONG TIM & EE SAN CHEN
205 RICHDALE AVE. UNIT#A/18
CAMBRIDGE, MA 02140

202-130
GEIGER, KATHRYN A.
205 RICHDALE AVE., #A/19
CAMBRIDGE, MA 02140

202-130
SYMONDS, CHRISTAIN T. & LISON MALDONADO
8 WARE ST.
SOMERVILLE, MA 02144

102 Sherman St. 2015

202-130
GOYAL, BRAJESH & MEGHNA MITTAL
205 RICHDALE AVE. UNIT#A/21
CAMBRIDGE, MA 02140

202-130
HEACOCK, JOSHUA J.
205 RICHDALE AVE. UNIT#A22
CAMBRIDGE, MA 02140

202-130
COWEN, ROBERT H. & LISA R. COWEN
129-205 RICHDALE AVE. UNIT#A/23
CAMBRIDGE, MA 02140

202-130
WONG ALAN
C/O AKSHAY JOYOTI DAVE
205 RICHDALE AVE #A-24
CAMBRIDGE, MA 02140

202-130
SMITH, STANTON R. & RAVEN K. BASRAN
205 RICHDALE AVE. UNIT# A/25
CAMBRIDGE, MA 02140

202-130
WALSH, PAMELA
129-205 RICHDALE AVE, UNIT A/26
CAMBRIDGE, MA 02140

202-130
MCLENDON, CHRISTOPHER LEE &
TING-TING WU MCCLENDON
205 RICHDALE AVE., #A/27
CAMBRIDGE, MA 02140

202-130
CHEUNG, LO
189 RICHDALE AVE., UNIT#B10
CAMBRIDGE, MA 02139

202-130
DOSS, DEBORAH S.
189 RICHDALE AVE., #B-11
CAMBRIDGE, MA 02140

202-130
ISLAM, SABINA
189 RICHDALE AVE, #B12
CAMBRIDGE, MA 02140

202-130
WEIGEL, JANET
189 RICHDALE AVE. UNIT#B/13
CAMBRIDGE, MA 02140

202-132
BOULANGER, SUSAN & JOHN TRAVIS
202 RICHDALE AVE., #1
CAMBRIDGE, MA 02140

202-130
RIVERA, MAYRA L. RIVERA
28 HINGHAM ST., #6
CAMBRIDGE, MA 02138

202-132
KABIR, NURUL & NASIMA KHATOON
202 RICHDALE AVE., UNIT #2 & #3
CAMBRIDGE, MA 02140

204-8
NICRON, LLC
50 HUNTERS RIDGE RD
CONCORD, MA 01742

204-8
HANSEN, RICHARD B., MYONG HUI HANSEN &
SARAH K. HANSEN
130 BRAEMOOR DR.
BONNY DOON, CA 95060

204-8
NICRON, LLC,
C/O RYAN HUNT
11 ELKINS STREET APT # 250
BOSTON, MA 02127

204-8
NICRON, LLC
50 HUNTERS RIDGE RD.
CONCORD, MA 01742

204-151
BONDER, JULIAN N. &
MARCELA KALINA-BONDER
45 SHERIDAN ST
CAMBRIDGE, MA 02139

204-25
SCANLON, MARTHA R.
41 SHERIDAN ST
CAMBRIDGE, MA 02140

204-132
SHEA, ED & BROOKSANY COE
33 WOOD ST
CAMBRIDGE, MA 02140

204-133
ROUHANI, PARISA & HOUTAN SADAFI
29 WOOD STREET
CAMBRIDGE, MA 02140

204-133
DIENER, SANDRA R.
31 WOOD ST., #31/1
CAMBRIDGE, MA 02140

204-133
CARTY, LAWRENCE J.
C/O ANDERSEN, ERIC RILEY &
31 WOOD ST., #31/2
CAMBRIDGE, MA 02140

204-134
KUELZER, HERBERT,
TR. OF 27 WOOD STREET REALTY TRUST
25-27 WOOD STREET
CAMBRIDGE, MA 02140

204-137
WILSON, BRYAN P. & SYLVIA E. WILSON,
TRS OF RAYMOND REALTY TRUST
28 MUZZEY STREET
LEXINGTON, MA 02173

204-147
CAMBRIDGE AFFORDABLE PRESIDENTIAL
APARTMENTS LLC.
362 GREEN STREET, 3RD FLOOR
CAMBRIDGE, MA 02139

264-102
CAMBRIDGE CITY OF PWD
147 HAMPSHIRE ST
CAMBRIDGE, MA 02139

271-20
KIM, JENNIFER Y. & LAWRENCE K. KIM
1 BELLIS CT. UNIT A
CAMBRIDGE, MA 02140

271-20
ROWLANDS, DAVID JOHN &
MARIANNA PAPASPYRIDONOS
2 BELLIS COURT
CAMBRIDGE, MA 02140

102 Sherman St. 3 of 5

271-20
MITTELL, PETER R. & MAXINE L. WEINREB
3 JOHN F. BELLIS CT
CAMBRIDGE, MA 02140

271-20
WEITZMAN, CATHERINE EZELL AND
ARTHUR J. WEITZMAN
4 JOHN F. BELLIS CT
CAMBRIDGE, MA 02140

271-20
GILL, RICHARD J. & SUZAN E. WOLPOW
111 SHERMAN ST., #E
CAMBRIDGE, MA 02140

271-20
KERAMARIS, JOHN & NICHOLAS KERAMARIS
111 SHERMAN ST., #F
CAMBIDGE, MA 02140

203A-4
CAMBRIDGE ELECTRIC LIGHT CO
C/O NSTAR CO
P.O. BOX 270
HARTFORD , CT 06141

203A-5
WOOLFE, CAROL
10 BRANDYWYNE
WAYLAND, MA 01778

203A-5
GANGAL, PUNEET
25 ANNAWAN RD
WABAN, MA 02468

203A-5
KASHINATH, ABISHEK & SRRUTHI MALLIK
116 SHERMAN ST., #120
CAMBRIDGE, MA 02140

203A-10
6 BLAIR PLACE, LLC
C/O HIGH ST. PROPERTY MGMT CORP
92 HIGH ST. SUITE 22
MEDFORD, MA 02155

203A-15
NAZIWA, CATHERINE & STEPHEN BABUMBA
71 BOLTON ST., UNIT #71
CAMBRIDGE, MA 02138

203A-15
HICKEY, KATHLEEN M.
73 BOLTON ST., UNIT #73A
CAMBRIDGE, MA 02138

203A-15
OLUWOLE, BANKE
73B BLOTON STREET
CAMBRIDGE, MA 02140

203A-15
CHARLES, MARIE R.
75 BOLTON ST., #75A
CAMBRIDGE, MA 02140

203A-15
FIGUEROA, MIRIAM J.
75 BOLTON ST., #75B
CAMBRIDGE, MA 02140

203A-15
DESJARDINS, ANNE M.
77A BOLTON ST
CAMBRIDGE, MA 02140

203A-15
RETTA, GIRUM & ALEMMTSEHAY MEKONNEN
77B BOLTON ST
CAMBRIDGE, MA 02139

203A-20
LOWER, CHARLES B. & MICHELLE K. LOWER
80 BOLTON ST
CAMBRIDGE, MA 02140

203A-30
EVANS MARY E. & JOHN S. EVANS
74 BOLTON ST
CAMBRIDGE, MA 02140

203A-31
PARRA, LORENZO G.
76 BOLTON ST
CAMBRIDGE, MA 02140

203A-33
WESTON, SYLVIA
78 BOLTON ST.
CAMBRIDGE, MA 02140

203A-68
BASILE, MARILYN
9 BLAIR PL.
CAMBRIDGE, MA 02140

203A-73
BOLTON STREET PARTNERS, LLC.
181 DUDLEY RD
NEWTON, MA 02459

203A-5
FITZPATRICK, BRIAN A.
116 SHERMAN ST., UNTI 120.5
CAMBRIDGE, MA 02140

203B-21
BERTOLI, LEONARD
58 TRENTON ST.
MELROSE, MA 02176

203B-52
KERNOCHAN, JOHN A.,
TR. OF BRICKYARD REALTY TRUST
C/O HAMMOND PROPERTY MGMT
TWO BRATTLE SQ
CAMBRIDGE, MA 02138

203B-57
CJK SHERMAN LIMITED PARTNERSHIP C/O CWA
66 SHERMAN ST.
CAMBRIDGE, MA 02140

203B-69
CAMBRIDGE FRIENDS SCHOOL INC
5 CADBURY RD
CAMBRIDGE, MA 02140

203B-66
WSQ LIMITED PARTNERSHIP
C/O WINN RESIDENTIAL
ATTN: LI SOSNA
6 FANEUIL HALL MARKETPLACE
BOSTON, MA 02109

203B-67
SEUFERT, THOMAS S. & CAROLYN F. FISHER
98R SHERMAN ST
CAMBRIDGE, MA 02140

203B-68
DINARDO, VALERIE J.
98-100 SHERMAN ST
CAMBRIDGE, MA 02140

102 Sherman St. 495

203A-67
GRABINER, ELLEN
7 BLAIR PL., UNIT #1
CAMBRIDGE, MA 02139

203A-67
NEWMAN, AARON W. & LISA A. LASSNER
7 BLAIR PL., #2
CAMBRIDGE, MA 02140

203A-74-75/ 264-102
CITY OF CAMBRIDGE
C/O LOUIE DEPASQUALE
CITY MANAGER

203A-74-75/ 264-102
CITY OF CAMBRIDGE
C/O NANCY GLOWA
CITY SOLICITOR

204-136
HEATH, MELISSA & JOSHUA DOLBY
156-158 RAYMOND ST., #1
CAMBRIDGE, MA 02138

204-136
GIVON, LIOR
156 RAYMOND ST. UNIT#2
CAMBRIDGE, MA 02138

204-138
KENNY, TARA L. & BRANDON T. JAMES
148-150 RAYMOND ST.,#148
CAMBRIDGE, MA 02140

204-138
SPEK, ERIK J. & SONJIA J. KENNY
150 RAYMOND STREET, UNIT 150
CAMBRIDGE, MA 02139

203B-24
FERRER, DOUGLAS W.
180 RAYMOND ST, UNIT #1
CAMBRIDGE, MA 02140

203B-24
JONES, DEREK & LIDIANE JONES
C/O BENSON, ANDREW C.
180 RAYMOND ST., #2
CAMBRIDGE, MA 02140

203B-28
KOUL, ASHISH
184 RAYMOND ST., UNIT #1
CAMBRIDGE, MA 02140

203B-28
HUANG, ZEN SOUN & SHU CHEN HUANG
184 RAYMOND ST., #3
CAMBRIDGE, MA 02140

203B-28
SANDRASEGARAN, KUMARESAN &
RUKSHINI SANDRASEGARAN
184 RAYMOND ST., UNIT #2
CAMBRIDGE, MA 02140

203B-28
LOOS, WILLIAM D. B. & KAREN B. CUSHING
184 RAYMOND ST., UNIT #6
CAMBRIDGE, MA 02140

203B-28
STANTON, GARY L. &
REBECCA HANDALI STANTON
184 RAYMOND ST., #5
CAMBRIDGE, MA 02139

203B-28
JAYARAM, HARIHARAN & GEETA D. ATHALYE
184 RAYMOND ST., UNIT #4
CAMBRIDGE, MA 02140

204-135
CORSENTINO, ANTHONY B. & SARAH T. PHILLIPS
21-23 WOOD ST., UNIT #1
CAMBRIDGE, MA 02141

204-135
YU, VIONNIE
21-23 WOOD ST., UNIT #3
CAMBRIDGE, MA 02141

204-135
HELDMAN , NIMROD & HADAS HELDELMAN
21 WOOD ST., #2
CAMBRIDGE, MA 02141

204-6
MASFERRER, JAIME L. & ROSSANA SCIOLLA TRS.,
MASFERRER-SCIOLLA REV. LIV. TRS
176-178 RAYMOND ST., #176
CAMBRIDGE, MA 02140

204-6
REDDY, GOPAL K. & ANN REDDY
176-178 RAYMOND ST., #178
CAMBRIDGE, MA 02139

204-33
CHAN, JUSTIN H. & FLORENCE Y. ONG
162 SLOCUM CRESCENT
FOREST HILLS, NY 11375

204-33
QI, QI
2 PEABODY TER., #901
CAMBRIDGE, MA 02138

204-33
BATTLE, JEREMY D. & JESSICA L. PARKER-BATTLE
5 WOOD ST., #3
CAMBRIDGE, MA 02140

204-33
CATTERUCCIA, FLAMINIA
68 LINE ST., #3
SOMERVILLE, MA 02143

203B-25
WANG, HSIAO-KUO & TIEN- YU HO
192 RAYMOND ST. UNIT 1
CAMBRIDGE, MA 02140

203B-25
O'FARRELL, MICHAEL P.
192 RAYMOND ST. UNIT 8
CAMBRIDGE, MA 02140

203B-25
CAVALIERE, SEAN P.
192 RAYMOND ST. UNIT 7
CAMBRIDGE, MA 02140

203B-25
PROSNITZ, CARISSA LYNN
192 RAYMOND ST. UNIT 6
CAMBRIDGE, MA 02140

203B-25
LIU, TA-MING & YU-HSIU LIN
C/O WEINTRAUB, JUSTIN S.
192 RAYMOND ST. UNIT 5
CAMBRIDGE, MA 02140

102 Sherman St. 5095

203B-25
WANG, QI
192 RAYMOND ST. UNIT 4
CAMBRIDGE, MA 02140

203B-25
SPEYER, RICHARD Z. & SAMANTHA C. SPEYER
192 RAYMOND ST. UNIT 3
CAMBRIDGE, MA 02140

203B-25
OLASKY, JAISA S.
192 RAYMOND ST. UNIT 2
CAMBRIDGE, MA 02140