

CITY OF CAMBRIDGE

BOARD OF ZONING APPEAL

831 Massachusetts Avenue, Cambridge MA 02139

2021 MAY 12 AM 11: 14

617-349-6100

OFFICE OF THE CITY CLERK CAMBRIDGE. MASSACHUSETTS

BZA Application Form

BZA Number: 118920

General Infor	matio	n
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The undersigned hereby petitions the Board of Zoning Appeal for the following:

Special Permit: _	X	Variance:		Appeal:	
PETITIONER: HPT Cambridge LLC					
PETITIONER'S A	DDRESS: 85 Rang	ewav Road, North Bi	llerica, MA 01862		
LOCATION OF PROPERTY: 40 Land Blvd , Cambridge, MA					
TYPE OF OCCUPANCY: Hotel		ZONING DISTRICT: PUD-2			
REASON FOR PETITION:					
/Telecommunicat	ion Facility (antenr	na)/			
DESCRIPTION O	F PETITIONER'S F	PROPOSAL:			
AT&T proposes the following modifications on the existing telecommunications site; remove (2) antennas, and install (2) new antennas, (6) new Remote Radio Units, and (1) DC Only Squid. The proposed modification will not increase the height nor footprint of the existing wireless facility.					
SECTIONS OF ZONING ORDINANCE CITED:					
Article: 4.000 Article: 4.000 Article: 10.000 Article: 6409	Article: 4.000 Section: 4.40 (Footnote 49) (Telecommunications Facility). Article: 10.000 Section: 10.40 (Special Permit).				
		Original Signature(s):	V (Pe	titioner (s) / Owner	
			Aristina	(Print Name)	41+T Agent

Address:

Tel. No.

9785518627

E-Mail Address:

kristina.cottone@smartlinkgroup.com

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.

HPT Cambridge LLC, a Massachusetts limited liability company (OWNER)
Address: Two Newton Place, 255 Washington Street, Suite 230, Newton, MA 02458
State that I/We own the property located at 40 Edwin Land Boulevard, Cambridge,
which is the subject of this zoning application.
The record title of this property is in the name of HPT Cambridge LLC,
successor by conversion to Charterhouse of Cambridge Trust u/d/t dated December 27, 1963
*Pursuant to a deed of duly recorded in the date $04/15/1969$, Middlesex South
County Registry of Deeds at Book 11665 , Page 330 ; or
Middlesex Registry District of Land Court, Certificate No
BookPage HPT Cambridge LLC
3:3
By: SIGNATURE BY LAND OWNER OR AUTHORIZED TRUSTEE, OFFICER OR AGENT*
Brian E. Donley, Treasurer and CFO *Written evidence of Agent's standing to represent petitioner may be requested.
ratitude evidence of agent's standing to represent petitioner may be requested.
Commonwealth of Massachusetts, County of <u>Middlesex</u>
The above-name Brian E. Donley, Treasurer & CFO personally appeared before me,
this 15^{-1} of April , 2021 , and made oath that the above statement is true.
Ehelle M. Masterson Notary
My commission expires 2/24/23 (Notary Seal). Seal). Seal Notary Public
COMMONWEALTH OF MASSACHUSETTS My Commission Expires
February 24, 2023

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

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March 26, 2021

Donna P. Lopez, City Clerk
City of Cambridge
City Hall
C

Applicant:

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

Property Address:

40 Land Blvd

Assessor's Map 9, Lot 31 (the "Property")

Re:

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 40 Land Blvd. (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

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.

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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.

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. Drawings by Fullerton Engineering consisting of (12) pages dated 01/12/2021;

SHEET	TITLE	REV DATE	
T1	Title Sheet	01/21/2021	
SP1	Notes and Specifications	01/21/2021	
SP2	Notes and Specifications	01/21/2021	
A1	Roof Plan	01/21/2021	
A2	Equipment Plan	01/21/2021	
A3	Elevations	01/21/2021	
A4	Antenna Plans	01/21/2021	
A5	Equipment Details	01/21/2021	
A6	Antenna and Cable Configuration	01/21/2021	
A7	Cable Notes and Coloring Code	01/21/2021	
A8	Grounding Details	01/21/2021	
A9	Plumbing Diagram	01/21/2021	

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

- 5. Photographs of the existing building and photosimulations of the proposed modifications Facility by Fullerton Engineering dated 08/06/2020;
- 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 Opinion letter by Fullerton Engineering dated January 15, 2021;
- 8. Maximum Permissible Exposure Study, Theoretical Report, by Site Safe, dated July 1, 2020:
- 9. Deed to subject property; and
- 10. Attorney General's letters to the Towns of Mount Washington, Lynnfield and Montague.

II. PROPOSED FACILITY DESIGN

AT&T seeks to modify the existing Facility on and within the building located at the Property. The existing Facility consists of ten (10) panel antennas (Alpha Sector: 3 antennas, Beta Sector: 3 antennas, and Gamma Sector: 4 antennas) that are mounted in three (3) locations. The proposed modifications include the replacement of two (2) antennas at one sector. The replacement antennas will be mounted to the existing antenna mounts or new mounts located behind the existing screen wall and consistent with the current Facility's design. Two (2) remote radio-head units (RRU) will be added in close proximity to the antenna. Consistent with the concealment elements of the existing Facility's design, the new antenna and RRU will be located behind the existing screen wall and out of the public view.

The Facility's design is shown in detail in the Zoning 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 photosimulations (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 Zoning 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,

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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. 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 and 850 MHz.

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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 '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, \$\Pi\$ 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.

47 U.S.C. § 1455(a)(2).

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.

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)(ii), 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.

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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 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

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

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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 that and therefore will not exceed 10 feet above the existing building;
- (ii) Protrude from the edge of 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 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

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(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. <u>AT&T complies with the Wireless Communications provisions set forth in Section</u> 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."

⁶ AT&T's request is made, if and to the extent necessary, 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.

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<u>AT&T's Response</u>: 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."

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 any visible antennas and equipment 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 photosimulations 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 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

⁸ AT&T must generate a signal strength of at least -74 dBm to provide serviceable voice and data coverage on its mobile wireless devices in indoor environments. AT&T also seeks to substantially improve its data navigation service coverage in the area by including antennas and equipment that will provide LTE service.

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latest LTE wireless communications service technology. Further, by modifying its existing Facility, and obviating the need to construct an entirely new facility within this area of Cambridge in order to meet its wireless network coverage needs, AT&T's proposed modifications to its existing Facility are consistent with the existing use and character of the neighborhood.

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

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AT&T's Response: As described above and illustrated on the attached photographs and photosimulations (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 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-

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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 Facility 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

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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[9]
- (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.

⁹ Inasmuch as Section 19.33 is most relevant to the Facility, it is stated here in full.

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- (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 photosimulations (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.
- <u>AT&T's Response</u>: 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.
- <u>AT&T's Response</u>: 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.
- <u>AT&T's Response</u>: The existing Facility and proposed modifications are designed so as not to cause shadows on neighboring lots.

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- (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.
- <u>AT&T's Response</u>: 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.
- <u>AT&T's Response</u>: 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.

<u>AT&T's Response</u>: 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. <u>SUMMARY</u>

For the foregoing reasons AT&T respectfully requests that the Board to determine that pursuant to the Spectrum Act and the FCC Order, the Request constitutes and 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,

Kristina Cottone
Authorized Agent to New Cingular Wireless PCS, LLC ("AT&T")

cc: Jonathan T. Elder, Esq.

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 <u>40 Land Blvd</u>, <u>Cambridge</u>, <u>MA</u> (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:

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.

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

The proposed 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.

The continued operation of or the development of adjacent uses as permitted in the Zoning

Ordinance would not be adversely affected by the nature of the proposed use for the following reasons:

As described above and illustrated on the attached photographs and photosimulations (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 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.

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:

Because the proposed modifications to the existing Facility will not cause

the Facility to general 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.

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:

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.

*If you have any questions as to whether you can establish all of the applicable legal requirements, you should consult with an attorney.

BZA Application Form

DIMENSIONAL INFORMATION

Applicant: HPT Cambridge LLC Present Use/Occupancy: Hotel

Location: 85 Rangeway Road **Zone**: PUD-2

Phone: 9785518627 Requested Use/Occupancy: Hotel

		Existing Conditions	Requested Conditions	<u>Ordinance</u> <u>Requirements</u>	
TOTAL CDOSS		Conditions	<u>oonanions</u>	<u>itequirements</u>	
TOTAL GROSS FLOOR AREA:		N/A	N/A	N/A	(max.)
LOT AREA:		N/A	N/A	N/A	(min.)
RATIO OF GROSS FLOOR AREA TO		N/A	N/A	N/A	
LOT AREA: ² LOT AREA OF					
EACH DWELLING UNIT		N/A	N/A	N/A	
SIZE OF LOT:	WIDTH	N/A	N/A	N/A	
	DEPTH	N/A	N/A	N/A	
SETBACKS IN FEET	:FRONT	N/A	N/A	N/A	
	REAR	N/A	N/A	N/A	
	LEFT SIDE	N/A	N/A	N/A	
	RIGHT SIDE	N/A	N/A	N/A	
SIZE OF BUILDING:	HEIGHT	N/A	N/A	N/A	
	WIDTH	N/A	N/A	N/A	
RATIO OF USABLE					
OPEN SPACE TO LOT AREA:		N/A	N/A	N/A	
NO. OF DWELLING UNITS:		N/A	N/A	N/A	
NO. OF PARKING SPACES:		N/A	N/A	N/A	
NO. OF LOADING AREAS:		N/A	N/A	N/A	
DISTANCE TO NEAREST BLDG. ON SAME LOT		N/A	N/A	N/A	

Describe where applicable, other occupancies on the same lot, the size of adjacent buildings on same lot, and type of construction proposed, e.g; wood frame, concrete, brick, steel, etc.

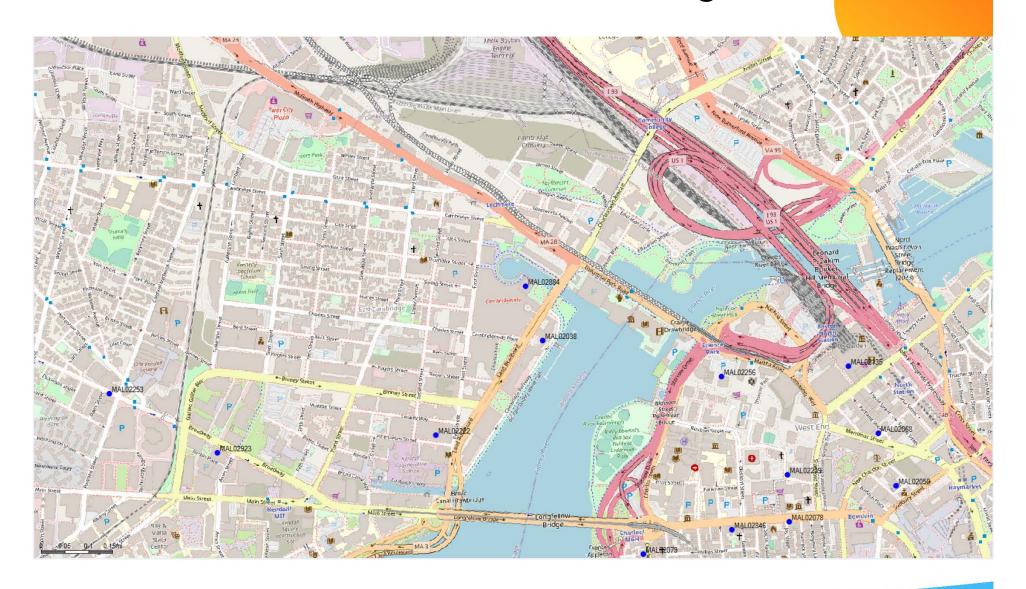
- 1. SEE CAMBRIDGE ZONING ORDINANCE ARTICLE 5.000, SECTION 5.30 (DISTRICT OF DIMENSIONAL REGULATIONS).
- 2. TOTAL GROSS FLOOR AREA (INCLUDING BASEMENT 7'-0" IN HEIGHT AND ATTIC AREAS GREATER THAN 5') DIVIDED BY LOT AREA.
- 3. OPEN SPACE SHALL NOT INCLUDE PARKING AREAS, WALKWAYS OR DRIVEWAYS AND SHALL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



MAL02038 CoveragePlots

 Zoning 850 5G, LTE 700 Band 14, LTE 700 DE Band Plots

Current 850 5G Band Coverage



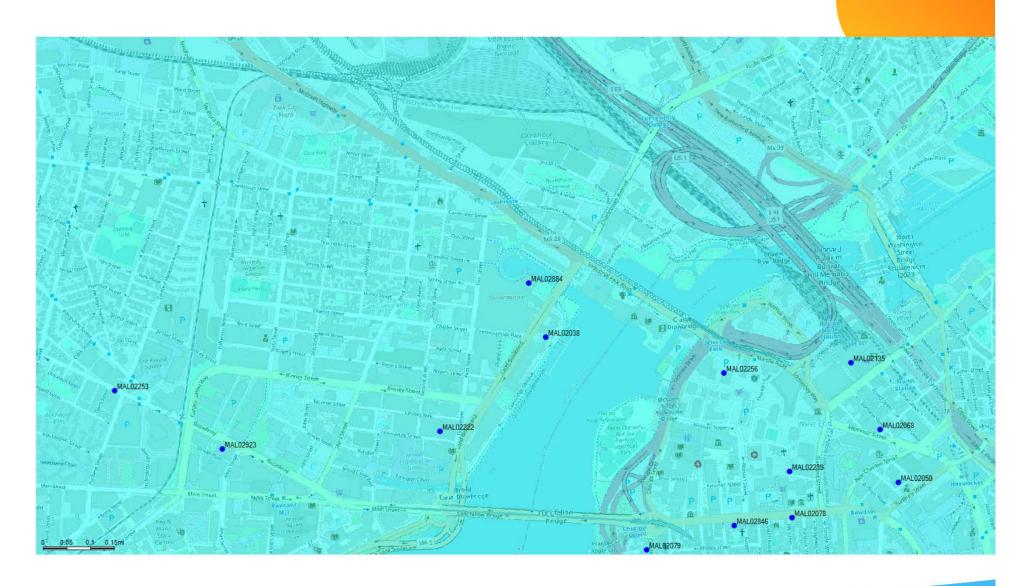


With Proposed MAL02038 5G 850 Band Coverage



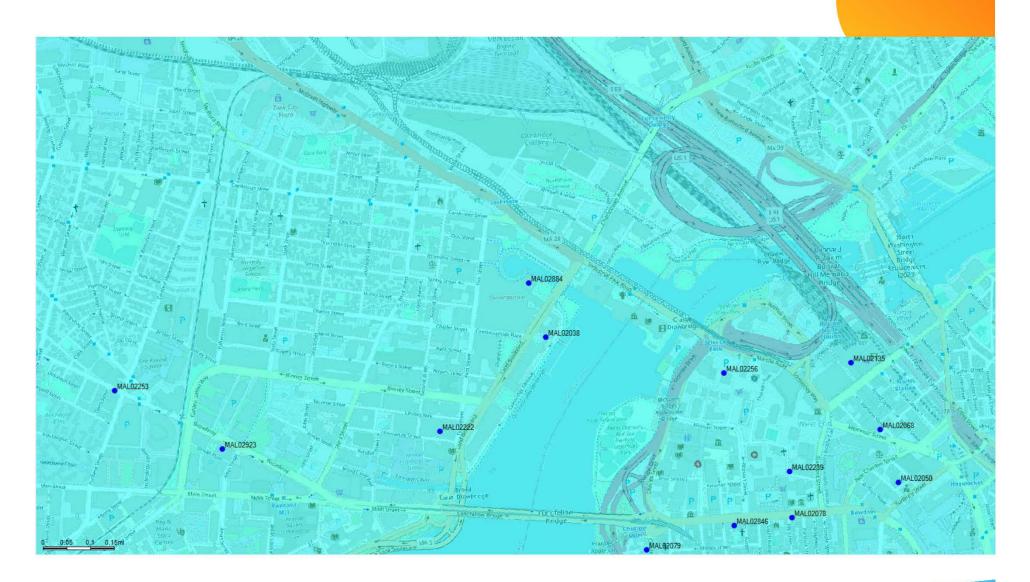


Current 700 Band 14 Band LTE Coverage





With Proposed MAL02038 700 Band 14 LTE Band Coverage





Existing 700 DE LTE Band Coverage





With Proposed MAL02038 700 DE LTE Band Coverage





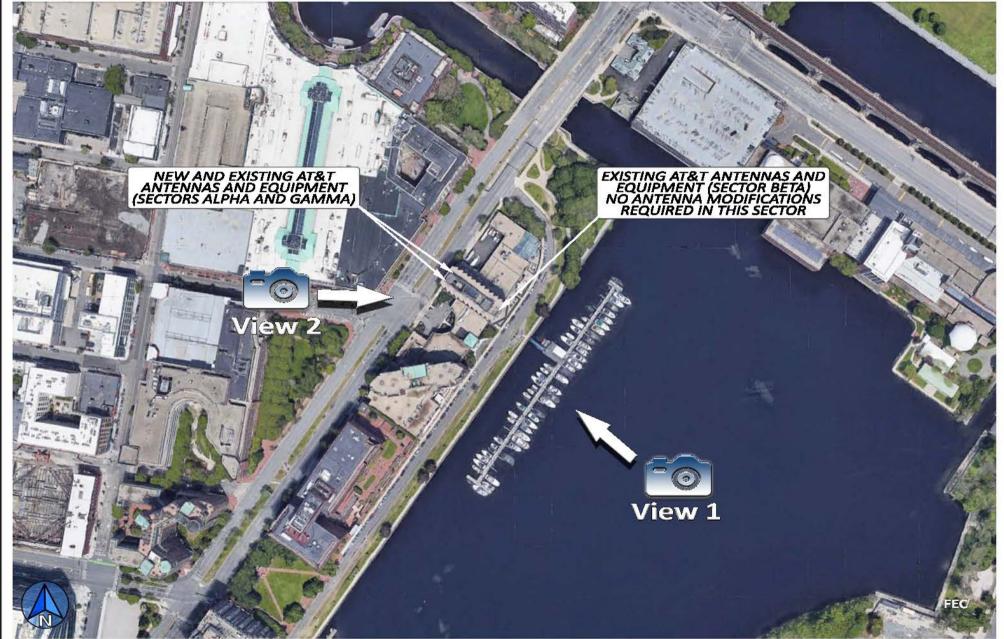


Site Number: MAL02038

Address: 5 Cambridge Parkway

FULLERTON

Cambridge, MA 02142 ENGINEERING · DESIGN





Site Number: MAL02038

Address: 5 Cambridge Parkway





View 1- Before [Looking Northwest from 400']

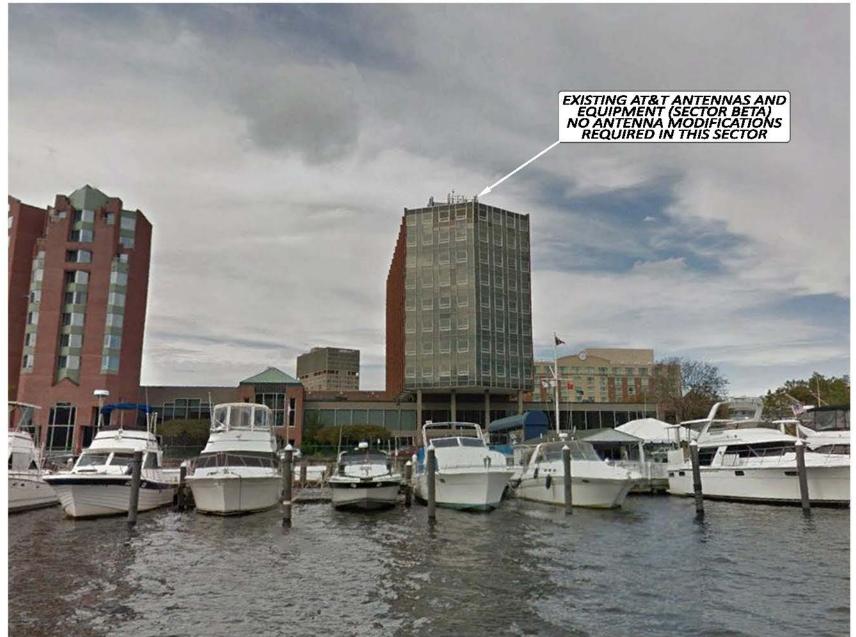


Site Number: MAL02038

Address: 5 Cambridge Parkway

Cambridge, MA 02142 ENGINEERING DESIGN





View 1- After [Looking Northwest from 400']

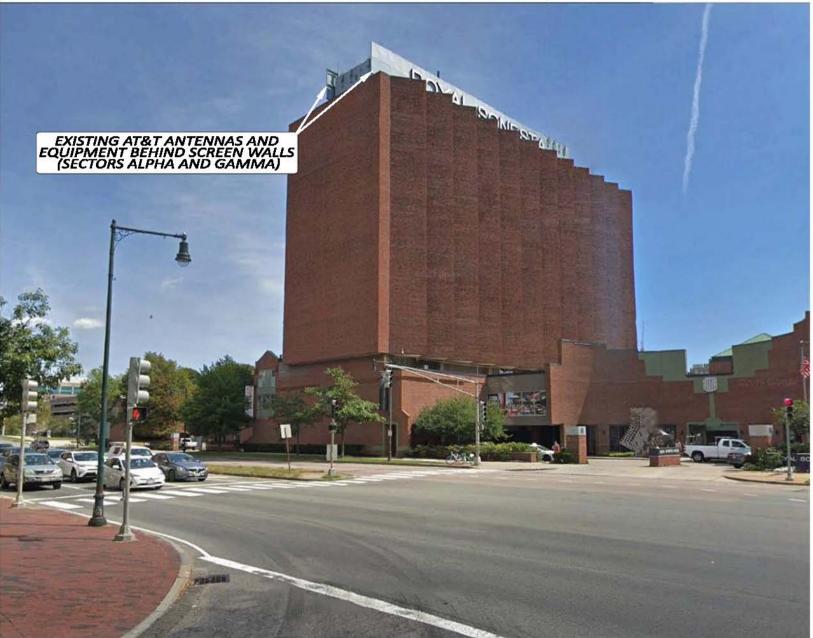


Site Number: MAL02038

Address: 5 Cambridge Parkway

FULLERTON

Cambridge, MA 02142 ENGINEERING · DESIGN



View 2- Before [Looking East from 200']

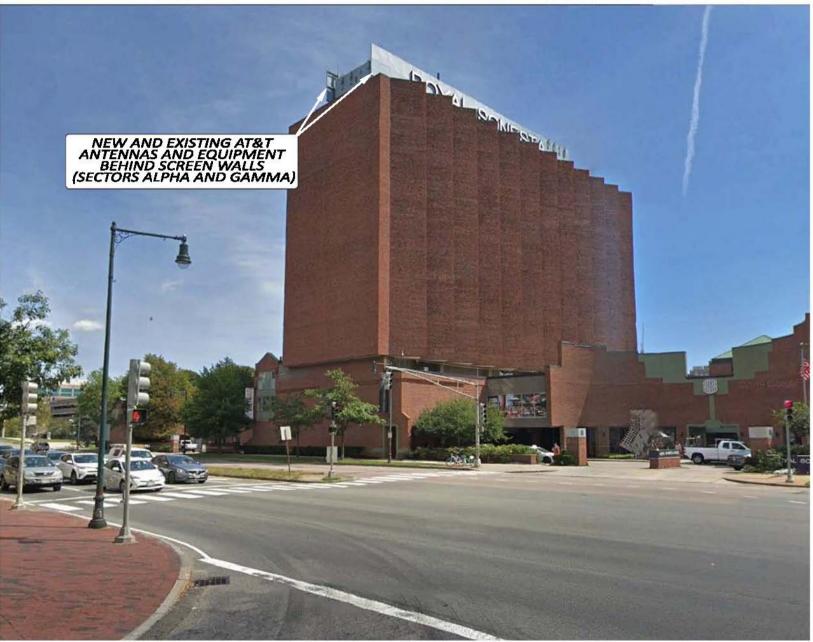


Site Number: MAL02038

Address: 5 Cambridge Parkway

FULLERTON

Cambridge, MA 02142 ENGINEERING · DESIGN



View 2- After [Looking East from 200']

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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: 23 Cambridge Parkway

Assessor's Map 9, Lot 31 (the "Property")

Re: 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 5 Cambridge Parkway. (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

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.

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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.

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. <u>APPLICATION PACKAGE</u>

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. Drawings by Fullerton Engineering consisting of (12) pages dated 01/12/2021;

SHEET	TITLE	REV DATE	
T1	Title Sheet	01/21/2021	
SP1	Notes and Specifications	01/21/2021	
SP2	Notes and Specifications	01/21/2021	
A1	Roof Plan	01/21/2021	
A2	Equipment Plan	01/21/2021	
A3	Elevations	01/21/2021	
A4	Antenna Plans	01/21/2021	
A5	Equipment Details	01/21/2021	
A6	Antenna and Cable Configuration	01/21/2021	
A7	Cable Notes and Coloring Code	01/21/2021	
A8	Grounding Details	01/21/2021	
A9	Plumbing Diagram	01/21/2021	

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

- 5. Photographs of the existing building and photosimulations of the proposed modifications Facility by Fullerton Engineering dated 08/06/2020;
- 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 Opinion letter by Fullerton Engineering dated January 15, 2021;
- 8. Maximum Permissible Exposure Study, Theoretical Report, by Site Safe, dated July 1, 2020;
- 9. Deed to subject property; and
- 10. Attorney General's letters to the Towns of Mount Washington, Lynnfield and Montague.

II. PROPOSED FACILITY DESIGN

AT&T seeks to modify the existing Facility on and within the building located at the Property. The existing Facility consists of ten (10) panel antennas (Alpha Sector: 3 antennas, Beta Sector: 3 antennas, and Gamma Sector: 4 antennas) that are mounted in three (3) locations. The proposed modifications include the replacement of two (2) antennas at one sector. The replacement antennas will be mounted to the existing antenna mounts or new mounts located behind the existing screen wall and consistent with the current Facility's design. Two (2) remote radio-head units (RRU) will be added in close proximity to the antenna. Consistent with the concealment elements of the existing Facility's design, the new antenna and RRU will be located behind the existing screen wall and out of the public view.

The Facility's design is shown in detail in the Zoning 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 photosimulations (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 Zoning 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,

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safety and welfare both in ordinary daily living and in the event of fire, accident, medical emergency, natural disaster or other dangers.

III. <u>BACKGROUND</u>

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. 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 and 850 MHz.

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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 '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, \P 88.

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47 U.S.C. § 1455(a)(2).

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.

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.

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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 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

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

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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 that and therefore will not exceed 10 feet above the existing building;
- (ii) Protrude from the edge of 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 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

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(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. <u>AT&T complies with the Wireless Communications provisions set forth in Section</u> 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."

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⁶ AT&T's request is made, if and to the extent necessary, 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.

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<u>AT&T's Response</u>: 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."

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 any visible antennas and equipment 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 photosimulations 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.⁸ 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 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

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⁸ AT&T must generate a signal strength of at least -74 dBm to provide serviceable voice and data coverage on its mobile wireless devices in indoor environments. AT&T also seeks to substantially improve its data navigation service coverage in the area by including antennas and equipment that will provide LTE service.

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latest LTE wireless communications service technology. Further, by modifying its existing Facility, and obviating the need to construct an entirely new facility within this area of Cambridge in order to meet its wireless network coverage needs, AT&T's proposed modifications to its existing Facility are consistent with the existing use and character of the neighborhood.

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. <u>AT&T complies with the Special Permit Criteria set forth in Section 10.43 of the Ordinance.</u>

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

<u>AT&T's Response</u>: 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

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AT&T's Response: As described above and illustrated on the attached photographs and photosimulations (*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 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-

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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 Facility 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:

<u>19.31</u>: 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

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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[9]
 - (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.

⁹ Inasmuch as Section 19.33 is most relevant to the Facility, it is stated here in full.

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- (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 photosimulations (*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.
- <u>AT&T's Response</u>: 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.
- <u>AT&T's Response</u>: 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.
- <u>AT&T's Response</u>: 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.
- <u>AT&T's Response</u>: The existing Facility and proposed modifications are designed so as not to cause shadows on neighboring lots.

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- (7) Changes in grade across the lot are designed in ways that minimize the need for structural retaining walls close to property lines.
- <u>AT&T's Response</u>: 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.
- <u>AT&T's Response</u>: 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.
- <u>AT&T's Response</u>: 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.
 - <u>19.34</u>: Projects should not overburden the City infrastructure services, including neighborhood roads, city water supply system, and sewer system.
- <u>AT&T's Response</u>: 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.
 - <u>19.35:</u> 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.

<u>AT&T's Response</u>: 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.

<u>AT&T's Response</u>: 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. <u>SUMMARY</u>

For the foregoing reasons AT&T respectfully requests that the Board to determine that pursuant to the Spectrum Act and the FCC Order, the Request constitutes and 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,

Kristina Cottone Authorized Agent to New Cingular Wireless PCS, LLC ("AT&T")

cc: Jonathan T. Elder, Esq.

Special Permit Application

40 Land Blvd, Cambridge, MA

Map 09 Lot31

Applicant:

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

c/o Kristina Cottone, Smartlink

Kristina.cottone@smartlinkgroup.com

(978-551-8627)

February 16, 2021

CHECK LIST

PROPERTY LOCATION: 40 Land Blvd, Cambridge, MA 02142	DATE:	02/16/2021		
PETITIONER OR REPRESENTATIVE: New Cingular Wireless PCS, LLC d/b/a AT&T Mobility C/O Kristina Cottone, Smartlink				
ADDRESS & PHONE: 85 Rangeway Rd., Bldg 3 Suite 102,. North Bil	lerica, MA 0186	2 / 978-551-86	27 —	
BLOCK: 09 LOT	: 31	 		
PLEASE CHECK THAT YOU HAVE INCLUDED THE FOLLOWING WELL NOT BE ACCEPTED FOR PROCESSING & SCHEDULING			APPLICATIONS OCUMENTS 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				
Supporting Statements - Scanned & 1 set to Zoning				
Application Fee (You will receive invoice online)				
Assessor's GIS "Block Map" (Available on line or At Engineering Dept 147 Hampshire Street)				
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				
Floor Plans - Scanned & 1 set to Zoning				
Elevations - Scanned & 1 set to Zoning				
Certified Plot Plan - Scanned & 1 set to Zoning (By Registered Land Surveyor)				
Photographs of Property - Scanned & 1 set to Zoning				
Parking Plan (if relevant to your application) Scanned & 1 set to Zoning				
	ng			
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.				

 $^{^{\}star}$ 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.

GENERAL INFORMATION

The undersigned hereby petitions the Board Special Permit: Variance:	d of Zoning Appeal Appea	_		
New Cinquiar Wireless PCS LLC d/b/s AT				
PETITIONER: ADDRESS: 85 Rangeway Rd., Bldg 3 Sui				
LOCATION OF PROPERTY: 40 Land Blvd, Cambridge, M				
Hetel		PUD-2		
TIPE OF OCCUPANCI:	ZONING DISTRICT:			
REASON FOR PETITION:				
Additions		_ New Structure		
Change in Use/Occupancy		Parking		
Conversion to Addi'l Dwelling	g Unit's	Sign		
Dormer		Subdivision		
Other: Wireless Communications Faci	lity Upgrade			
This application is an Eligable Facilities Request pursuant to s			ion	
Act of 2012, 47 USC 1455; or in the alternative, for a special p	permit under the zoning ord	liance as cited above, if and to		
he extent necessary, all rights reserved. New Cingular Wirele	ss PCS, LLC ("AT&T") prop	posed to replace (2) Panel Ante	nnas	
with (2) new Panel Antennas, install (2) new Remote Radio U	nits, and (1) Raycap with (2	2) DC Cables, as part of nation	vide upgrade	
SECTIONS OF ZONING ORDINANCE CITED:				
Article 4.000 Section 4.32.G.1 (Telecommunicat	rticle 4.000 Section 4.32.G.1 (Telecommunications Facility).			
Article 4.000 Section 4.40 (Footnote 49) (Teleco	ommunications Facility).			
Article 10.000 Section 10.40 (Special Permit).				
6409 Middle Class Tax Relief A Applicants for a Variance must complete Pa				
Applicants for a Special Permit must compl	ete Pages 1-4 and			
Applicants for an Appeal to the BZA Inspectional Services Department must atta	of a gratement con	ermination by the cerning the reasons		
for the appeal		/		
Original Signature(s):	(Petitioner	(s)/Owner)		
	Kristina Cottone, Smartli			
Address:	(Print 85 Rangeway Road, Bldg			
	North Billerica, MA 0186	2		
Tel. No.:	02/16/2021			
	ess: Kristina.cottone@sr	martlinkgroup.com		
Date: 02/16/2021				

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/WeHPT Camridge LLC, a Ma	ssachusetts limited liability con	npany	
Address: Two Newton Place, 2		00, Newton, MA 02458	
State that I/We own the which is the subject of			a 5 Cambridge Pkwy)
The record title of thi successor-by-conversion to Cha			
*Pursuant to a deed of County Registry of Deed Middlesex Registry Dist	s at Book		or
Book Page		_·	
*Written evidence of Ag	AUTHORIZ	-	
Commonwealth of Massach	usetts, County of		
The above-name, thisof,			tement is true.
My commission expires _			

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

DIMENSIONAL INFORMATION

	7	REQUESTED USE/OCCUPANCY: Hotel/Wireless			
		EXISTING CONDITIONS	REQUESTED CONDITIONS	ORDINANCE REQUIREMENTS ¹	
TAL GROSS FLOOR	AREA:	0	0	0	(ma
AREA:			0	0	(m)
'IO OF GROSS FLO LOT AREA: ²	OR AREA	0	0	0	(ma
AREA FOR EACH	DWELLING UNIT:	0	0	0	(mi
E OF LOT:	WIDTH	0	0	0	(mi
	DEPTH				
backs in	FRONT	0	0	0	(mi
<u>t</u> :	REAR	0	0	0	(mi
	LEFT SIDE	0	0	0	(mi
	RIGHT SIDE	0	0	0	(mi
E OF BLDG.:	HEIGHT	0	0	0	(ma
	LENGTH	0	0	0	
	WIDTH	0	0	0	
IO OF USABLE OP LOT AREA: ³)	EN SPACE				
<u> </u>		0	0	0	(mi
OF DWELLING UN	ITS:	0	0	0	(ma
OF PARKING SPA	CES:	0	0	0(min	./m
OF LOADING ARE	AS:	0	0	0	(mi
	T BLDG.	0	0	0	(mi

^{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'.

SUPPORTING STATEMENT FOR A VARIANCE

EACH OF THE FOLLOWING REQUIREMENTS FOR A VARIANCE MUST BE ESTABLISHED AND SET FORTH IN COMPLETE DETAIL BY THE APPLICANT IN ACCORDANCE WITH MGL 40A. SECTION 10:

COMPLE	TE DETAIL BY THE APPLICANT IN ACCORDANCE WITH MGL 40A, SECTION 10:
A)	A Literal enforcement of the provisions of this Ordinance would involve a substantial hardship, financial or otherwise, to the petitioner or appellant for the following reasons:
B)	The hardship is owing to the following circumstances relating to the soil conditions, shape or topography of such land or structures and especially affecting such land or structures but not affecting generally the zoning district in which it is located for the following rearsons:
C)	DESIRABLE RELIEF MAY BE GRANTED WITHOUT EITHER:
	1) Substantial detriment to the public good for the following reasons:
	2) Relief may be granted without nullifying or substantially derogating from the intent or purpose of this Ordinance for the following reasons: * If You have any questions as to whether you can establish all of the
	* If You have any questions as to whether you can establish all of the applicable legal requirements, you should consult with your own attorney.

(ATTACHMENT B - PAGE 5)

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.

permits, comprehensive permits, etc., which must be met. Granting the Special Permit requested for (location) would not be a detriment to the public interest because: Requirements of the Ordinance can or will be met for the following A) reasons: See attached support statements. Traffic generated or patterns of access or egress would not cause congestion hazard, or substantial change in established neighborhood B) 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. Nuisance or hazard would not be created to the detriment of the health, D) 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.

(ATTACHMENT B - PAGE 6)

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March 26, 2021

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: 40 Land Blvd

Assessor's Map 9, Lot 31 (the "Property")

Re: 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 40 Land Blvd. (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

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.

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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.

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. <u>APPLICATION PACKAGE</u>

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. Drawings by Fullerton Engineering consisting of (12) pages dated 01/12/2021;

SHEET	TITLE	REV DATE
T1	Title Sheet	01/21/2021
SP1	Notes and Specifications	01/21/2021
SP2	Notes and Specifications	01/21/2021
A1	Roof Plan	01/21/2021
A2	Equipment Plan	01/21/2021
A3	Elevations	01/21/2021
A4	Antenna Plans	01/21/2021
A5	Equipment Details	01/21/2021
A6	Antenna and Cable Configuration	01/21/2021
A7	Cable Notes and Coloring Code	01/21/2021
A8	Grounding Details	01/21/2021
A9	Plumbing Diagram	01/21/2021

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

- 5. Photographs of the existing building and photosimulations of the proposed modifications Facility by Fullerton Engineering dated 08/06/2020;
- 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 Opinion letter by Fullerton Engineering dated January 15, 2021;
- 8. Maximum Permissible Exposure Study, Theoretical Report, by Site Safe, dated July 1, 2020;
- 9. Deed to subject property; and
- 10. Attorney General's letters to the Towns of Mount Washington, Lynnfield and Montague.

II. PROPOSED FACILITY DESIGN

AT&T seeks to modify the existing Facility on and within the building located at the Property. The existing Facility consists of ten (10) panel antennas (Alpha Sector: 3 antennas, Beta Sector: 3 antennas, and Gamma Sector: 4 antennas) that are mounted in three (3) locations. The proposed modifications include the replacement of two (2) antennas at one sector. The replacement antennas will be mounted to the existing antenna mounts or new mounts located behind the existing screen wall and consistent with the current Facility's design. Two (2) remote radio-head units (RRU) will be added in close proximity to the antenna. Consistent with the concealment elements of the existing Facility's design, the new antenna and RRU will be located behind the existing screen wall and out of the public view.

The Facility's design is shown in detail in the Zoning 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 photosimulations (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 Zoning 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,

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safety and welfare both in ordinary daily living and in the event of fire, accident, medical emergency, natural disaster or other dangers.

III. <u>BACKGROUND</u>

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. 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 and 850 MHz.

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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 '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, \P 88.

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47 U.S.C. § 1455(a)(2).

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.

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.

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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 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

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

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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 that and therefore will not exceed 10 feet above the existing building;
- (ii) Protrude from the edge of 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 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

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(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. <u>AT&T complies with the Wireless Communications provisions set forth in Section</u> 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

<u>Section 4.32(g)(1)</u>: 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."

{A0422583.1}

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⁶ AT&T's request is made, if and to the extent necessary, 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.

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<u>AT&T's Response</u>: 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."

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 any visible antennas and equipment 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 photosimulations 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.⁸ 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 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

{A0422583.1}

⁸ AT&T must generate a signal strength of at least -74 dBm to provide serviceable voice and data coverage on its mobile wireless devices in indoor environments. AT&T also seeks to substantially improve its data navigation service coverage in the area by including antennas and equipment that will provide LTE service.

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latest LTE wireless communications service technology. Further, by modifying its existing Facility, and obviating the need to construct an entirely new facility within this area of Cambridge in order to meet its wireless network coverage needs, AT&T's proposed modifications to its existing Facility are consistent with the existing use and character of the neighborhood.

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. <u>AT&T complies with the Special Permit Criteria set forth in Section 10.43 of the Ordinance.</u>

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

<u>AT&T's Response</u>: 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

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AT&T's Response: As described above and illustrated on the attached photographs and photosimulations (*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 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-

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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 Facility 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:

<u>19.31</u>: 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

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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[9]
 - (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.

⁹ Inasmuch as Section 19.33 is most relevant to the Facility, it is stated here in full.

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- (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 photosimulations (*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.
- <u>AT&T's Response</u>: 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.
- <u>AT&T's Response</u>: 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.
- <u>AT&T's Response</u>: 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.
- <u>AT&T's Response</u>: The existing Facility and proposed modifications are designed so as not to cause shadows on neighboring lots.

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- (7) Changes in grade across the lot are designed in ways that minimize the need for structural retaining walls close to property lines.
- <u>AT&T's Response</u>: 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.
- <u>AT&T's Response</u>: 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.
- <u>AT&T's Response</u>: 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.
 - <u>19.34</u>: Projects should not overburden the City infrastructure services, including neighborhood roads, city water supply system, and sewer system.
- <u>AT&T's Response</u>: 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.
 - <u>19.35:</u> 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.

<u>AT&T's Response</u>: 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. <u>SUMMARY</u>

For the foregoing reasons AT&T respectfully requests that the Board to determine that pursuant to the Spectrum Act and the FCC Order, the Request constitutes and 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,

Kristina Cottone Authorized Agent to New Cingular Wireless PCS, LLC ("AT&T")

cc: Jonathan T. Elder, Esq.

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Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: AT&T MOBILITY SPECTRUM LLC

ATTN: CECIL J MATHEW AT&T MOBILITY SPECTRUM LLC 208 S. AKARD ST., RM 1015 DALLAS, TX 75202

Call Sign KNLF954	File Number
Radio	Service
CW - PCS	Broadband

FCC Registration Number (FRN): 0014980726

Grant Date	Effective Date	Expiration Date	Print Date		
06-29-2017	09-21-2018	06-27-2027			
Market Number BTA051	Chan	Channel Block D			
		et Name on, MA			
1st Build-out Date 06-27-2002	2nd Build-out Date	3rd Build-out Date	4th Build-out Date		

Waivers/Conditions:

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/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border 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.

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.

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.

Call Sign: KNLF954 File Number: Print Date:

700 MHz Relicensed Area Information:

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: AT&T MOBILITY SPECTRUM LLC

ATTN: CECIL J MATHEW AT&T MOBILITY SPECTRUM LLC 208 S. AKARD ST., RM 1015 DALLAS, TX 75202

Call Sign KNKA226	File Number					
	Service Cellular					
Market Numer	Channel Block					
CMA006	A					
Sub-Market	Sub-Market Designator					
()					

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	08-29-2018	10-01-2024		

Site Information:

Ground Elevation Structure Hgt to Tip Antenna Structure Location Latitude Longitude (meters) (meters) Registration No. 15 58.8

45.7 070-39-16.8 W 42-37-42.3 N

Address: 40 DORY ROAD

Construction Deadline: City: GLOUCESTER **County:** ESSEX State: MA

Antenna: 1								
Maximum Transmitting ERP in Watts:	140.820							
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) Antenna: 2	158.853	205.617	68.628	9.427	0.642	0.431	2.268	29.488
Maximum Transmitting ERP in Watts:	140.820					~		
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) Antenna: 3	0.459	5.462	56.429	198.529	168.403	38.276	3.953	0.786
Maximum Transmitting ERP in Watts:	140.820							
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.

Call Sign: KNKA226 File Number: Print Date:

Location Latitude 20 43-03-11.8 N	Longitude 071-16-02.1 W	Ground Elevation (meters) 179.2			tructure Hg meters) 9.4	t to Tip	Antenna Structure Registration No.	
Address: 80 Diamond Hill Ro	oad							
City: Candia County: ROC	CKINGHAM Sta	te: NH	Constructi	on Deadl	ine:			
Antenna: 1	740							
Maximum Transmitting ERP in								
Azimuth(from true north) Antenna Height AAT (meters)	0 73.200	45	90	135	180	225	270	315
Transmitting ERP (watts)	52.325	111.000 70.778	159.400 16.988	159.000 1.425	98.400 0.187	148.300 0.144	88.600 0.491	75.600 7.084
Antenna: 2		70.776	10.700	1.423	0.167	0.144	0.471	7.004
Maximum Transmitting ERP in Azimuth(from true north)		45	90	135	100	225	270	315
Azimuth(from tide horth) Antenna Height AAT (meters)	0 73.200	45 111.000	90 159.400	159.000	180 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 Maximum Transmitting ERP in	Wetter 140 920							
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
						T (00	2 20 4	6.905
Transmitting ERP (watts)	6.845	0.890	0.107	1.038	6.652	7.633	3.304	0.905
Location Latitude	6.845 Longitude	Gı	0.107 round Elev	ation S	6.652 Atructure Hg meters)		Antenna St	ructure
Location Latitude	Longitude	Gı (m	round Elev	ration S	tructure Hg meters)		Antenna St Registratio	ructure
Location Latitude 24 42-54-55.1 N	Longitude 071-21-37.4 W	Gı (m	round Elev	ration S	tructure Hg		Antenna St	ructure
Location Latitude 24 42-54-55.1 N Address: 15 INDEPENDENCE	Longitude 071-21-37.4 W CE DRIVE	G1 (m	round Elev neters) 10.9	ration S (r	tructure Hg meters) .6.3	t to Tip	Antenna St Registratio	ructure
Location Latitude 24 42-54-55.1 N Address: 15 INDEPENDENCE	Longitude 071-21-37.4 W	G1 (m	round Elev	ration S (r	tructure Hg meters)	t to Tip	Antenna St Registratio	ructure
Location Latitude 24 42-54-55.1 N Address: 15 INDEPENDENC City: LONDONDERRY C	Longitude 071-21-37.4 W CE DRIVE	G1 (m	round Elev neters) 10.9	ration S (r	tructure Hg meters) .6.3	t to Tip	Antenna St Registratio	ructure
Location Latitude 24 42-54-55.1 N Address: 15 INDEPENDENC City: LONDONDERRY Co	Longitude 071-21-37.4 W CE DRIVE ounty: ROCKING	G1 (m	round Elev neters) 10.9	ration S (r	tructure Hg meters) .6.3	t to Tip	Antenna St Registratio	ructure
Location Latitude 24 42-54-55.1 N Address: 15 INDEPENDENC City: LONDONDERRY Co Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north)	Longitude 071-21-37.4 W CE DRIVE ounty: ROCKING	Gi (m 10 HAM Si	round Elev neters) 10.9	ration S (r	tructure Hg meters) .6.3	t to Tip	Antenna St Registratio	ructure
Location Latitude 24 42-54-55.1 N Address: 15 INDEPENDENCE City: LONDONDERRY Comparison of the comp	Longitude 071-21-37.4 W CE DRIVE ounty: ROCKING Watts: 140.820 0 35.900	Gi (m 10 HAM Si 30.000	round Elevaters) 100.9 tate: NH 90 44.800	ation S (1 4 Construction 135 52.100	tructure Hg meters) 6.3 ction Deadlin	ne: 225 72.000	Antenna St Registratio 1011624 270 68.000	315 66.500
Location Latitude 24 42-54-55.1 N Address: 15 INDEPENDENC City: LONDONDERRY Co Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north)	Longitude 071-21-37.4 W CE DRIVE ounty: ROCKING	Gi (m 10 HAM Si	round Elevaters) 100.9 tate: NH	construction S (1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	tructure Hg meters) 6.3 ction Deadli	t to Tip ne:	Antenna St Registratio 1011624	ructure n No.
Location Latitude 24 42-54-55.1 N Address: 15 INDEPENDENCE City: LONDONDERRY Comparison of the comp	Longitude 071-21-37.4 W CE DRIVE ounty: ROCKING 140.820 0 35.900 161.221	Gi (m 10 HAM Si 30.000	round Elevaters) 100.9 tate: NH 90 44.800	ation S (1 4 Construction 135 52.100	tructure Hg meters) 6.3 ction Deadlin	ne: 225 72.000	Antenna St Registratio 1011624 270 68.000	315 66.500
Location Latitude 24 42-54-55.1 N Address: 15 INDEPENDENC City: LONDONDERRY Co Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north)	Longitude 071-21-37.4 W CE DRIVE ounty: ROCKING a Watts: 140.820 0 35.900 161.221 a Watts: 140.820 0	G1 (m 10 HAM Si 30.000 224.756	round Elevaters) 00.9 tate: NH 90 44.800 47.602	135 52.100 3.692	tructure Hg meters) 6.3 ction Deadlin 180 54.500 0.510 180	225 72.000 0.437	270 68.000 1.233	315 66.500 19.454
Location Latitude 24 42-54-55.1 N Address: 15 INDEPENDENCE City: LONDONDERRY Comparison of the comp	Longitude 071-21-37.4 W CE DRIVE ounty: ROCKING 0 35.900 161.221 a Watts: 140.820 0 35.900	G1 (m 10 HAM Si 30.000 224.756 45 30.000	round Elevaters) 100.9 tate: NH 90 44.800 47.602	135 52.100 3.692	### Action Deadling 180	225 72.000 0.437 225 72.000	Antenna St Registratio 1011624 270 68.000 1.233 270 68.000	315 66.500 19.454 315 66.500
Location Latitude 24 42-54-55.1 N Address: 15 INDEPENDENCE City: LONDONDERRY Comparison of the comp	Longitude 071-21-37.4 W CE DRIVE ounty: ROCKING 0 35.900 161.221 n Watts: 140.820 0 35.900 0.510	G1 (m 10 HAM Si 30.000 224.756	round Elevaters) 00.9 tate: NH 90 44.800 47.602	135 52.100 3.692	tructure Hg meters) 6.3 ction Deadlin 180 54.500 0.510 180	225 72.000 0.437	270 68.000 1.233	315 66.500 19.454
Location Latitude 24 42-54-55.1 N Address: 15 INDEPENDENCE City: LONDONDERRY Comparison of the comp	Longitude 071-21-37.4 W CE DRIVE ounty: ROCKING 140.820 0 35.900 161.221 1 Watts: 140.820 0 35.900 0.510 1 Watts: 140.820	Gi (m. 10) HAM Si 30.000 224.756 45 30.000 3.172	round Elevaters) 10.9 tate: NH 90 44.800 47.602 90 44.800 43.604	135 52.100 3.692 135 52.100 213.248	180 54.500 0.510 180 54.500 156.639	225 72.000 0.437 225 72.000 22.374	270 68.000 1.233 270 68.000 1.350	315 66.500 19.454 315 66.500 0.496
Location Latitude 24 42-54-55.1 N Address: 15 INDEPENDENCE City: LONDONDERRY Comparison of the comp	Longitude 071-21-37.4 W CE DRIVE ounty: ROCKING 0 35.900 161.221 n Watts: 140.820 0 35.900 0.510	G1 (m 10 HAM Si 30.000 224.756 45 30.000	round Elevaters) 100.9 tate: NH 90 44.800 47.602	135 52.100 3.692	### Action Deadling 180	225 72.000 0.437 225 72.000	Antenna St Registratio 1011624 270 68.000 1.233 270 68.000	315 66.500 19.454 315 66.500

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

Call Sign: KNKA226	File Number:				Print Date:				
Location Latitude	Longitude	Ground Elevation (meters)			Structure Hg (meters)	t to Tip	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 Count	y: NORFOLK S	State: MA	Constru	ction De	eadline: 03-29	-2013			
Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters)	Watts: 140,820 0 64,500	45 61.200	90	135	180	225	270	315	
Transmitting ERP (watts)	84.752	97.052	95.600 31.772	96.100 5.158	94.300 0.550	64.100 0.224	46.000 2.803	48.800 20.645	
Antenna: 2		71.032	31.772	3.130	0.550	0.224	2.003	20.043	
Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3	64.500 0.380	45 61.200 5.181	90 95.600 37.013	135 96.100 100.82		225 64.100 20.699	270 46.000 2.118	315 48.800 0.824	
Maximum Transmitting ERP in Azimuth(from true north)	Watts: 140.820	45	90	135	180	225	270	315	
Antenna Height AAT (meters) Transmitting ERP (watts)	64.500 24.577	61.200 1.736	95.600 0.715	96.100 2.292	94.300 18.444	64.100 139.378	46.000 281.180	48.800 142.336	
Location Latitude	Longitude		ound Elev		Structure Hg	t to Tip	Antenna St Registratio		
26 41-46-57.1 N	070-44-06.5 W	12			58.8		1109101111010		
Address: KENDRICK ROAD		12			20.0				
		State: MA	Constru	ction D	eadline: 03-29	9-2013			
Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters)	Watts: 140.820 0 30.000	45 30,000	90	135 56 700	180 59.800	225 50,600	270	315 32,800	

Antenna: 1 Maximum Transmitting ERP in Watts:	140.820							
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) Antenna: 2	186.898	242.551	75.777	10.617	0.738	0.508	2.730	35.860
Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north) Antenna Height AAT (meters)	0 30.000	45 30.000	90 46.500	135 56.700	180 59.800	225 50.600	270 39.100	315 32.800
Transmitting ERP (watts) Antenna: 3	0.361	5.818	47.861	150.309	121.062	28.493	2.933	0.991
Maximum Transmitting ERP in Watts:	140.820							
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

Transmitting ERP (watts)

Print Date: Call Sign: KNKA226 File Number:

Location Latitude 27 41-53-35.2 N	Longitude 070-56-35.0 W		round Ele eters)		Structure Hg (meters) 106.1	t to Tip	Antenna Structure Registration No.	
41-53-55.2 N Address: 326 W GROVE ST	070-30-33.0 W	1 /	. /		106.1		1210211	
	DIAMOUTH C	4-4 3/1/4	C4	-4' D -	- 412 02 20	2012		
City: Middleboro County:	PLYMOUTH S	tate: MA	Constru	ction Dea	adline: 03-29-	2013		
Antenna: 1	TT 44 140 000							
Maximum Transmitting ERP in Azimuth(from true north)	n Watts: 140,820 0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	47.500	45 46.300	30.000	37.000		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		10002	0.1.200	0.000	0.07.	0.000	2.072	27.6.10
Maximum Transmitting ERP in Azimuth(from true north)		45	00	125	100	225	270	215
Antenna Height AAT (meters)	0 47.500	45 46.300	90 30.000	135 37.000	180 40.900	225 39.500	270 51.600	315 42.300
Transmitting ERP (watts)	0.351	5.901	52.455	151.82		27.887	2.679	0.991
Antenna: 3			0200	101.02	120.012	27.007	2.075	0.771
Maximum Transmitting ERP in Azimuth(from true north)		45	00	125	100	225	270	215
Antenna Height AAT (meters)	0 47.500	45 46.300	90 30.000	135 37.000	180 40.900	225 39.500	270 51.600	315 42.300
Transmitting ERP (watts)	14.428	1.006	0.875	1.215	13.317	87.541	159.641	85.795
Location Latitude	Longitude	Gı	ound Ele	vation	Structure Hg	t to Tip	Antenna S	tructure
		(m	eters)		(meters)		Registratio	n No.
28 42-14-21.9 N	070-51-09.3 W	54	.9		55.8			
Address: 168 Turkey Hill Lar	ne							
City: Cohasset County: NO		MA Co	struction	Deadlin	e: 03-29-2013	}		
eity: conasset county: 110	Sta ozn State.	1111	istraction	Deadin	2010			
A., A.,								
Antenna: 1 Maximum Transmitting ERP in	n Wetter 140 820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	99.800	98.300	97.600	71.700		62.900	86.700	99.100
Transmitting ERP (watts)	185.522	243.217	80.727	11.598		0.499	2.589	34.953
Antenna: 2 Maximum Transmitting EDD in	n Wetter 140 920							
Maximum Transmitting ERP in Azimuth(from true north)	0 0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	99.800	98.300	97.600	71.700		62.900	86.700	99.100
	0.521	6.371	65.693	238.02	4 196.107	43.191	4.256	0.906
Antenna: 3		6.371	65.693	238.024	4 196.107	43.191	4.256	0.906
Antenna: 3 Maximum Transmitting ERP in	n Watts: 140.820							
Transmitting ERP (watts) Antenna: 3 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters)		6.371 45 98.300	65.693 90 97.600	238.024 135 71.700	180	225 62.900	4.256 270 86,700	0.906 315 99.100

45.661

86.700 85.290

53.553

0.543

9.488

0.538

1.234

64.800 8.977

Call Sign: KNKA226 File Number: Print Date:

Location Latitude 29 41-56-02.0 N	Longitude 070-35-08.0 W		ound Elev eters) 9	(1	tructure Hgt meters) 28.0	t to Tip	Antenna Structure Registration No. 1007828		
Address: 265 STATE ROAL)								
City: PLYMOUTH Count	ty: PLYMOUTH	State: MA	Constru	uction De	eadline: 03-2	9-2013			
Antenna: 1 Maximum Transmitting ERP Azimuth(from true north) Antenna Height AAT (meters)	0 128.000	45 128.000	90 128.000	135 123.500	180 92.200	225 86.600	270 84.900	315 120.500	
Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP Azimuth(from true north)		24.154 45	10.475 90	1.931 135	0.466 180	0.109	1.398 270	6.965 315	
Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3	128.000 0.346	128.000 4.427	128.000 33.055	123.500 88.168	92.200 72.485	86.600 17.790	84.900 1.831	120.500 0.701	
Maximum Transmitting ERP i Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts)	0	45 128.000 0.561	90 128.000 0.550	135 123.500 1.216	180 92.200 9.292	225 86.600 54.685	270 84.900 90.439	315 120.500 45.409	
Location Latitude	Longitude		ound Elev eters)	ation Structure Hgt to Tip (meters)			Antenna Structure Registration No.		
30 42-12-47.6 N	071-32-33.4 W	128	3.0	5	8.5				
Address: 26 LUMBER STR									
City: HOPKINTON Coun	ity: MIDDLESEX	State: MA	A Const	ruction D	Deadline: 03-	29-2013			
Antenna: 1 Maximum Transmitting ERP	in Watts: 140.820								
Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2		45 93.200 188.312	90 99.800 64.228	91.500 8.830	180 55.300 0.704	225 59.600 0.395	270 35.700 4.080	315 76.400 30.535	
Maximum Transmitting ERP i Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3	0	45 93.200 6.612	90 99.800 61.028	135 91.500 195.296	180 55.300 166.263	225 59.600 35.500	270 35.700 3.748	315 76.400 0.703	
Maximum Transmitting ERP	- Wasse 140 920								

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

Call Sign. KINKA220	r ile Number:				Time Date.					
Location Latitude	Longitude		round Ele neters)	levation Structure Hgt to Tip (meters)		Antenna Structure Registration No.				
31 42-38-27.0 N	070-36-24.8 W	30	5.6		38.7					
Address: 38 Thatcher Rd										
City: ROCKLAND County	: ESSEX State:	MA C	onstruction	n Deadl	ine: 03-29-201	3				
Antenna: 1 Maximum Transmitting ERP in	Watter 140 820									
Azimuth(from true north)	0	45	90	135	180	225	270	315		
Antenna Height AAT (meters)	69.500	69.500	69.500	69.500	0 69.500	66.700	58.400	60.100		
Transmitting ERP (watts) Antenna: 2	170.519	227.554	76.127	10.393	3 0.706	0.470	2.520	32.796		
Maximum Transmitting ERP in	Watts: 140.820									
Azimuth(from true north) Antenna Height AAT (meters)	0 69.500	45 69.500	90 69.500	135 69.500	180 69.500	225 66.700	270 58.400	315 60.100		
Transmitting ERP (watts) Antenna: 3	0.462	5.689	58.840	206.20		39.385	4.197	0.837		
Maximum Transmitting ERP in	Watts: 140.820									
Azimuth(from true north) Antenna Height AAT (meters)	0 69.500	45 69.500	90 69.500	135 69.500	180 69.500	225 66,700	270 58.400	315 60.100		
Transmitting ERP (watts)	20.761	1.510	0.812	1.238	15.269	110.467	237.338	124.965		
Location Latitude	Longitude		round Ele	vation	Structure Hg (meters)	t to Tip	Antenna St Registratio			
32 42-36-37.9 N	071-33-28.9 W	14	18.4		46.3		G			
Address: 142 LOWELL RD										
City: GROTON County: M	IIDDLESEX Sta	ate: MA	Construc	tion De	adline: 03-29-2	2013				
Antenna: 1										

Antenna: 1 Maximum Transmitting ERP in Watts:	140.820							
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) Antenna: 2	209.658	291.175	91.511	11.206	1.156	0.596	4.998	40.617
Maximum Transmitting ERP in Watts:	140.820							
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) Antenna: 3	0.597	10.042	80.421	284.569	246.599	46.898	5.186	0.906
Maximum Transmitting ERP in Watts:	140.820							
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

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

Can Sign	I; KNKA220	File	Number:	•			Γ.	riiit Date	•	
	1 Latitude	Longitude	(n	round Elev neters)	ation	(met	cture Hg ers)	t to Tip	Antenna St Registratio	
33	42-08-01.1 N	070-43-57.5 W	6	8.3		80.5			1017973	
	: 178 EAMES WAY									
City: Ma	rshfield County: F	PLYMOUTH Sta	ate: MA	Construct	ion De	adline	e: 03-29-2	2013		
Antenna l	m Transmitting ERP in imuth(from true north) Height AAT (meters)	0 125.300	45 128.600	90 128.200	135 125.80		180 107.800	225 113.100	270 97.600	315 105.400
Antenna:	ting ERP (watts)	156.993	202.510	73.503	10.210	0	0.666	0.415	2.429	32.615
Antenna l	m Transmitting ERP in imuth(from true north) Height AAT (meters) ting ERP (watts) 3	1 Watts: 140.820 0 125.300 0.482	45 128.600 5.988	90 128.200 62.083	135 125.80 217.53		180 107.800 187.313	225 113.100 40.576	270 97.600 4.382	315 105.400 0.869
Antenna l	m Transmitting ERP in imuth(from true north) Height AAT (meters) ting ERP (watts)	1 Watts: 140.820 0 125.300 21.007	45 128.600 1.466	90 128.200 0.829	135 125.80 1.219		180 107.800 15.907	225 113.100 109.305	270 97.600 228.002	315 105.400 122.541
	1 Latitude	Longitude		round Elev neters)	ation	Stru (met	cture Hg ers)	t to Tip	Antenna St Registratio	
34	41-42-11.1 N	070-46-47.1 W	1	4.3		59.4				
Address:	: 55 BENSONBROO	K ROAD								
City: MA	ARION County: Pl	LYMOUTH Sta	te: MA	Constructi	on Dea	dline	: 03-29-2	013		
Antenna: Maximun	1 n Transmitting ERP in	n Watts: 140.820								

Antenna: 1								
Maximum Transmitting ERP in Watts:	140.820							
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								
Maximum Transmitting ERP in Watts:	140.820							
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								
Maximum Transmitting ERP in Watts:	140.820							
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

Call Sign: KNKA226 File Number: Print Date:

Can Sign; KNKA220 File			Number:			rimi Date.			
Location Latit		Longitude	(m	ound Elev eters)	ation	Structure Hg (meters)	t to Tip	Antenna St Registratio	
	-20.1 N	071-33-16.6 W	15	6.1		26.5			
Address: 157 U									
City: MARLBO	ROUGH C	ounty: MIDDLESI	EX Stat	e: MA C	onstru	ction Deadline	e: 03-29-2	.013	
Antenna Height A Transmitting ER	om true north) AAT (meters)	Watts: 140,820 0 97,800 280,304	45 119.900 377.489	90 113.500 119.970	135 108.40 14.810		225 73.000 0.802	270 51.900 6.660	315 77.300 52.209
Antenna: 2			577.107	117.770	1 1.01	7.525	0.002	0.000	32.20)
Maximum Trans Azimuth(fr Antenna Height A Transmitting ER Antenna: 3	om true north) AAT (meters)	97.800 0.801	45 119.900 13.105	90 113.500 105.660	135 108.40 375.94		225 73.000 63.339	270 51.900 6.978	315 77.300 1.142
Maximum Trans Azimuth(fr Antenna Height A Transmitting ER	om true north) AAT (meters)	Watts: 140.820 0 97.800 30.606	45 119.900 2.831	90 113.500 1.046	135 108.40 2.632	180 76.200 27.909	225 73.000 187.774	270 51.900 419.392	315 77.300 197.441
Location Latit	ude	Longitude		ound Elev eters)	ation	Structure Hg (meters)	t to Tip	Antenna St Registratio	
36 42-39	-54.6 N	070-38-19.9 W	59	.4		44.5		S	
Address: 68 JO	HNSON ROA	D							
City: ROCKPO	RT County:	ESSEX State: 1	MA Co	nstruction	Deadli	ne: 03-29-2013	3		
Antenna: 1	mitting ERP in	Watts: 140 820							

Antenna: 1 Maximum Transmitting ERP in Watts:	140.820							
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) Antenna: 2	126.741	159.124	54.189	7.443	0.564	0.334	3.098	25.685
Maximum Transmitting ERP in Watts:	140.820							
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) Antenna: 3	0.353	5.360	49.103	157.255	130.117	30.639	2.895	0.641
Maximum Transmitting ERP in Watts:	140.820							
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

Call Sign: KNKA226 File Number: Print Date:

Location Latitude 37 42-41-29.8 N	Longitude 071-47-30.8 W	(n	round Eleva neters) 33.8		ructure Hgt teters) .9	to Tip	Antenna St Registratio	
Address: 1140 Greenville Rd					••			
City: ASHBY County: MI		e: MA	Construction	n Deadlin	e: 03-29-20	13		
Antenna: 1								
Maximum Transmitting ERP in	n Watts: 140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters) Transmitting ERP (watts)	30.000	138.200	163.500	145.000	68.800	30.000	30.000	30.000
Antenna: 2	301.383	343.844	123.915	17.212	1.267	0.862	4.339	57.968
Maximum Transmitting ERP in								
Azimuth(from true north) Antenna Height AAT (meters)	30.000	45	90	135	180	225	270	315
Transmitting ERP (watts)	0.559	138.200	163.500 72.077	145.000 254.800	68.800 226.824	30.000 50.359	30.000 4.678	30.000 0.979
Antenna: 3		0.540	72.077	234.000	220.824	30.337	4.076	0.575
Maximum Transmitting ERP in			0.0	40.	100			
Azimuth(from true north) Antenna Height AAT (meters)	0 30.000	45 138.200	90	135	180	225	270	315
Transmitting ERP (watts)	35.557	2.084	163.500 1.375	145.000 2.194	68.800 29.159	30.000 209.483	30.000 410.600	30.000 215.057
Location Latitude	Longitudo	G	round Fleve	ation St	ructure Hot	to Tin	Antonno St	ructura
Location Latitude 38 42-38-54.9 N	Longitude 071-47-40.6 W	(n	round Eleva neters) 40.8		ructure Hgt teters) .2	to Tip	Antenna St Registratio	
20	071-47-40.6 W	(n 24	neters)	(m	eters)	to Tip		
38 42-38-54.9 N	071-47-40.6 W RG STATE ROAD	(n	neters)	(m 47	neters)	•		
38 42-38-54.9 N Address: 601-603 FITCHBU	071-47-40.6 W RG STATE ROAD DDLESEX State	(n 24 e: MA	neters) 40.8 Construction	(m 47 n Deadline	e: 03-29-20	•	Registratio	n No.
38 42-38-54.9 N Address: 601-603 FITCHBUTCITY: ASHBY County: MI Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters)	071-47-40.6 W RG STATE ROAD DDLESEX State	(n	neters) 40.8	(m 47	neters)	13		
38 42-38-54.9 N Address: 601-603 FITCHBUTCITY: ASHBY County: MI Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts)	071-47-40.6 W RG STATE ROAD DDLESEX State n Watts: 140.820	(n 24 2: MA (neters) 40.8 Construction 90	(m 47 n Deadline	neters) .2 e: 03-29-20	225	Registratio	315
38 42-38-54.9 N Address: 601-603 FITCHBUTCITY: ASHBY County: MI Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2	071-47-40.6 W RG STATE ROAD DDLESEX State n Watts: 140.820 0 31.100 204.865	(n 24 2: MA (1 45 159.800	90 170.800	(m 47 n Deadline 135 147.700	neters) .2 e: 03-29-20 180 56.300	225 30.000	270 30.000	315 30.000
38 42-38-54.9 N Address: 601-603 FITCHBUTCITY: ASHBY County: MI Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north)	071-47-40.6 W RG STATE ROAD DDLESEX State n Watts: 140.820 0 31.100 204.865 n Watts: 140.820 0	(n 24 2: MA (1 45 159.800	90 170.800	(m 47 n Deadline 135 147.700	neters) .2 e: 03-29-20 180 56.300	225 30.000	270 30.000	315 30.000
38 42-38-54.9 N Address: 601-603 FITCHBUTCITY: ASHBY County: MI Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters)	071-47-40.6 W RG STATE ROAD DDLESEX State n Watts: 140.820 0 31.100 204.865 n Watts: 140.820 0 31.100	45 159.800 233.420 45 159.800	90 170.800 85.530 90 170.800	(m 47 n Deadline 135 147.700 11.768	180 56.300 0.897	225 30.000 0.575	270 30.000 2.961 270 30.000	315 30.000 39.554 315 30.000
38 42-38-54.9 N Address: 601-603 FITCHBUTCITY: ASHBY County: MI Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts)	071-47-40.6 W RG STATE ROAD DDLESEX State n Watts: 140.820 0 31.100 204.865 n Watts: 140.820 0	45 159.800 233.420	90 170.800 85.530	(m 47 n Deadline 135 147.700 11.768	180 56.300 0.897	225 30.000 0.575 225	270 30.000 2.961 270	315 30.000 39.554 315
38 42-38-54.9 N Address: 601-603 FITCHBUTCITY: ASHBY County: MI Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters)	071-47-40.6 W RG STATE ROAD DDLESEX State n Watts: 140.820 0 31.100 204.865 n Watts: 140.820 0 31.100 0.570	45 159.800 233.420 45 159.800	90 170.800 85.530 90 170.800	(m 47 n Deadline 135 147.700 11.768	180 56.300 0.897	225 30.000 0.575 225 30.000	270 30.000 2.961 270 30.000	315 30.000 39.554 315 30.000
38 42-38-54.9 N Address: 601-603 FITCHBUTCity: ASHBY County: MI Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3 Maximum Transmitting ERP in Azimuth(from true north)	071-47-40.6 W RG STATE ROAD DDLESEX State n Watts: 140.820 0 31.100 204.865 n Watts: 140.820 0 31.100 0.570 n Watts: 140.820 0	45 159.800 233.420 45 159.800 6.676	90 170.800 85.530 90 170.800	(m 47 n Deadline 135 147.700 11.768	180 56.300 0.897 180 56.300 238.587	225 30.000 0.575 225 30.000	270 30.000 2.961 270 30.000 4.787 270	315 30.000 39.554 315 30.000 1.001
38 42-38-54.9 N Address: 601-603 FITCHBUTCITY: ASHBY County: MI Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 2 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 3 Maximum Transmitting ERP in	071-47-40.6 W RG STATE ROAD DDLESEX State n Watts: 140.820 0 31.100 204.865 n Watts: 140.820 0 31.100 0.570 n Watts: 140.820	45 159.800 233.420 45 159.800 6.676	90 170.800 85.530 90 170.800 74.271	(m 47 n Deadline 135 147.700 11.768 135 147.700 261.076	180 56.300 0.897 180 56.300 238.587	225 30.000 0.575 225 30.000 50.169	270 30.000 2.961 270 30.000 4.787	315 30.000 39.554 315 30.000 1.001

Call Sign: KNKA226	File Number:	Print Date:
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Location Latitude 40 43-05-58.2 N	Longitude 070-47-28.6 W		ound Eleva eters)		ructure Hg eters) .4	t to Tip	Antenna St Registratio	
Address: 165 GOSLING RD								
City: NEWINGTON Cour	nty: ROCKINGHAI	M State:	NH Con	struction	Deadline:	03-29-201	13	
Antenna: 1	740							
Maximum Transmitting ERP i								
Azimuth(from true north) Antenna Height AAT (meters)		45	90	135	180	225	270	315
Transmitting ERP (watts)	205.727	45.500 278.300	68.500 62.928	72.400 5.059	58.800 0.711	51.900 0.597	57.200 1.577	52.000 25.136
Antenna: 2		278.300	02.920	3.039	0.711	0.371	1.577	23.130
Maximum Transmitting ERP i		4-	0.0	125	100	225	250	21.5
Azimuth(from true north) Antenna Height AAT (meters)		45 45.500	90	135	180	225	270	315 52.000
Transmitting ERP (watts)	0.559	3.335	68.500 47.419	72.400 236.351	58.800 181.187	51.900 26.867	57.200 1.510	0.563
Antenna: 3			.,,,,,	200.001	1011107	20.007	11010	0.00
Maximum Transmitting ERP i Azimuth(from true north)		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 41 43-04-39.1 N	Longitude 071-07-30.3 W	(m	round Eleva eters) 7.0		ructure Hg leters) .7	t to Tip	Antenna St Registratio 1231475	
41 43-04-39.1 N Address: 150 Raymond Road	071-07-30.3 W	(m 10	eters) 7.0	(m . 60.	eters)	•	Registratio	
41 43-04-39.1 N Address: 150 Raymond Road	071-07-30.3 W	(m	eters) 7.0	(m . 60.	eters)	•	Registratio	
41 43-04-39.1 N Address: 150 Raymond Road City: Nottingham County: Antenna: 1 Maximum Transmitting ERP in Azimuth (from true north) Antenna Height AAT (meters)	071-07-30.3 W d ROCKINGHAM in Watts: 140.820	(m 10	eters) 7.0	(m . 60.	eters)	•	Registratio	
41 43-04-39.1 N Address: 150 Raymond Road City: Nottingham County: Antenna: 1 Maximum Transmitting ERP in Azimuth(from true north)	071-07-30.3 W d ROCKINGHAM in Watts: 140.820	(m 10 State: NI	eters) 7.0 H Constr	(m 60. uction De	eters) .7 adline: 03-	29-2013	Registratio 1231475 270	315
41 43-04-39.1 N Address: 150 Raymond Road City: Nottingham County: Antenna: 1 Maximum Transmitting ERP i Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts)	071-07-30.3 W d ROCKINGHAM in Watts: 140.820 0 54.900 160.334 in Watts: 140.820	(m 10 State: NI 45 95.800	90 122.100	(m 60. uction Des	eters) .7 adline: 03- 180 102.200	29-2013 225 66.300	Registratio 1231475 270 44.100	315 30.000

Call Sign: KNKA226 File Number: Print Date:

Location	Latitude	Longitude	Ground Elevation		Antenna Structure
			(meters)	(meters)	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								
Maximum Transmitting ERP in Watts	: 140.820							
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	11.12.10	1021.00	27.0.5	2.000	0.072	0.000	0.501	10.010
Maximum Transmitting ERP in Watts	: 140.820							
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	0.544	3.575	77.713	233.030	104.420	30.433	1.413	0.010
Maximum Transmitting ERP in Watts	: 140.820							
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
	0.132	0.434	0.567	0.407	0.570	12.302	102.104	77.910

Location	1 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	Registi ation 110.

Address: 96 GROVE RD

City: RYE County: ROCKINGHAM State: NH Construction Deadline: 03-29-2013

Antenna: 1 Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters) Transmitting ERP (watts)	49.700	62.100	64.000	64.300	63.700	45.100	38.900	54.200
Antenna: 2	146.515	206.846	49.164	3.766	0.505	0.452	1.193	17.877
Maximum Transmitting ERP in Watts:	140.820							
Azimuth(from true north) Antenna Height AAT (meters)	0 49.700	45 62.100	90 64.000	135 64.300	180 63.700	225 45.100	270 38.900	315 54.200
Transmitting ERP (watts) Antenna: 3	0.464	2.913	42.460	206.462	152.606	24.148	1.373	0.460
Maximum Transmitting ERP in Watts:	140.820							
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

Call Sign: KNKA226 File Number: Print Date:

Waivers/Conditions:

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).

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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 KNLB200	File Number
Radio	Service
WS - Wireless Com	munications Service

FCC Registration Number (FRN): 0003291192

Grant Date 02-07-2020	Effective Date 02-07-2020	Expiration Date 07-21-2027	Print Date
Market Number MEA001	Chanr	iel Block B	Sub-Market Designator
Market Name Boston			
1st Build-out Date 03-13-2017	2nd Build-out Date 09-13-2019	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

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.

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.

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.

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNLB200 File Number: Print Date:

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 that license area at the 3/13/2017 construction deadline.

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNLB200 File Number: Print Date:

700 MHz Relicensed Area Information:

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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 KNLB210	File Number		
Radio Service WS - Wireless Communications Service			

FCC Registration Number (FRN): 0003291192

,			
Grant Date 02-07-2020	Effective Date 02-07-2020	Expiration Date 07-21-2027	Print Date
Market Number MEA001 Channel Block A Sub-Market Designator 0			
		et Name ston	
1st Build-out Date 03-13-2017	2nd Build-out Date 09-13-2019	3rd Build-out Date 4th Build	

Waivers/Conditions:

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.

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.

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.

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNLB210 File Number: Print Date:

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 that license area at the 3/13/2017 construction deadline.

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNLB210 File Number: Print Date:

700 MHz Relicensed Area Information:

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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 KNLF216	File Number	
Radio	Service	
CW - PCS	Broadband	

FCC Registration Number (FRN): 0003291192

Grant Date 06-02-2015	Effective Date 08-31-2018	Expiration Date 06-23-2025	Print Date	
Market Number MTA008		nel Block A	Sub-Market Designator 27	
Market Name Boston-Providence				
1st Build-out Date 06-23-2000	2nd Build-out Date 06-23-2005	3rd Build-out Date	4th Build-out Date	

Waivers/Conditions:

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).

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.

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: KNLF216 File Number: Print Date:

700 MHz Relicensed Area Information:

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Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: AT&T MOBILITY SPECTRUM LLC

ATTN: CECIL J MATHEW AT&T MOBILITY SPECTRUM LLC 208 S. AKARD ST., RM 1015 DALLAS, TX 75202

Call Sign WPOI214	File Number
Radio	Service
CW - PCS	Broadband

FCC Registration Number (FRN): 0014980726

Grant Date 06-10-2015	Effective Date 08-29-2018	Expiration Date 06-23-2025	Print Date		
Market Number MTA008	Chan	Channel Block Sub-Market Designs			
		et Name Providence			
1st Build-out Date 06-23-2000	2nd Build-out Date 06-23-2005	3rd Build-out Date	4th Build-out Date		

Waivers/Conditions:

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/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border 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.

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.

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.

Call Sign: WPOI214 File Number: Print Date:

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).

Call Sign: WPOI214 File Number: Print Date:

700 MHz Relicensed Area Information:

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

FCC Registration Number (FRN): 0003291192

Grant Date 06-26-2008	Effective Date 08-31-2018	Expiration Date 03-07-2021	Print Date
Market Number BEA003	Chann	nel Block E	Sub-Market Designator
Market Name Boston-Worcester-Lawrence-Lowe			
1st Build-out Date 03-07-2017	2nd Build-out Date 03-07-2021	3rd Build-out Date	4th Build-out Date

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.

Licensee Name: NEW CINGULAR WIRELESS PCS, LLC

Call Sign: WQIZ616 File Number: Print Date:

700 MHz Relicensed Area Information:

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Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: AT&T MOBILITY SPECTRUM LLC

ATTN: CECIL J MATHEW AT&T MOBILITY SPECTRUM LLC 208 S. AKARD ST. DALLAS, TX 75202

Call Sign WQJU427	File Number 0008667162		
Radio Service WY - 700 MHz Lower Band (Blocks A, B & E)			

FCC Registration Number (FRN): 0014980726

	t Date 2019	Effective Date 07-24-2019		Expiration Dat 06-13-2029	e	Print Date 07-25-2019
Ma	Market Number CMA006			el Block 3	Su	ıb-Market Designator ()
	Market Name Boston-Lowell-Brockton-Lawrenc					
	d-out Date 3-2016	2nd Build-out Date 06-13-2019		3rd Build-out Da	te	4th Build-out Date

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.

700 MHz Relicensed Area Information:

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Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: AT&T WIRELESS SERVICES 3 LLC

ATTN: CECIL J MATHEW AT&T WIRELESS SERVICES 3 LLC 208 S. AKARD ST., RM 1015 DALLAS, TX 75202

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

FCC Registration Number (FRN): 0023910920

Grant Date 04-08-2015	Effective Date 08-29-2018	Expiration Date 04-08-2027	Print Date
Market Number BEA003	Chann	tel Block J	Sub-Market Designator
	Market Boston-Worcester	- 1111	
1st Build-out Date 04-08-2021	2nd Build-out Date 04-08-2027	3rd Build-out Date	4th Build-out Date

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.

Licensee Name: AT&T WIRELESS SERVICES 3 LLC

Call Sign: WQVN675 File Number: Print Date:

700 MHz Relicensed Area Information:

40 Land Blvd



ADDRESS INFORMATION

From Address Database

40 Land Blvd

CityViewer Address Map

From Assessing Records

Map-Lot: 9-31

23 Cambridge Pkwy

See more data

Found At This Address

Royal Sonesta Hotel

RESIDENT INFORMATION

Neighborhood

East Cambridge

Historic Info

This is not a designated historic building.
Buildings over 50 years old may be subject to demolition review

Contact the CHC for more information

Trash & Recycling Pick Up Day

Thursday

Street Sweeping District

None

See schedule for details

Elected Officials and Voting Info

Ward 2, Precinct 3

Voting Location: M.I.T. (Kresge Auditorium, behind Stratton Center)

State Rep: Jay Livingstone

State Senator: Joseph A. Boncore

US Rep: Ayanna Pressley

U.S. Census Info

Census Tract: 352102

Demographic and Housing Estimates Social Characteristics Economic Characteristics Housing Characteristics

Zip Code

02142





LOCATION INFORMATION

Lat/Lon

-71.07488, 42.36684

State Plane NAD 83 Ft

771051, 2958993

State Plane NAD 83 Meters

235017, 901903

UTM Zone 19N **329150, 4692593**



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LTE 5C/6C/4T4R/5G NR PROJECT:

SITE NUMBER: MAL02038

10007272 FA NUMBER:

PTN NUMBER: 2101A0RWE2/2101A0RWE3/2101A0RWA4/2101A0RW9S

MRCTB043921/MRCTB043920/MRCTB043936/MRCTB043959 PACE NUMBER:

SITE NAME: SONESTA

SITE ADDRESS: 40 EDWIN LAND BLVD

8A

A9

CAMBRIDGE, MA 02142

550 COCHITUATE ROAD SUITE 550 13 AND 14 FRAMINGHAM, MA 01701



HANOVER, MD 21076

		CAMBRIDGE, MA 02 142	1100 E. WOODFIELD ROAD, SUITE 500 SCHAUMBURG, ILLINOIS 60173 TEL: 847-908-8400
PROJECT INFORMATION	SCOPE OF WORK	APPLICABLE BUILDING CODES AND STANDARDS	www.FullertonEngineering.com
SITE NAME: SITE NUMBER: SITE NUMBER: MAL02038 SITE ADDRESS: 40 EDWIN LAND BLVD CAMBRIDGE, MA 02142 PAR NUMBER: PIN NUMBER: PACE NUMBER: USID NUMBER: MRCTB043921/MRCTB043920/MRCTB043936/MRCTB043959 MRCTB043921/MRCTB043920/MRCTB043936/MRCTB043959 APPLICANT: AT&T WIRELESS 550 COCHITUATE ROAD SUITE 550 13 AND 14 FRAMINGHAM, MA 01701 OWNER: ROYAL SONESTA HOTEL	LTE 700/700/700/850 WILL BE 5C/6C/4T4R/5G NR AT THE SITE WITH BRONZE CONFIGURATION. PROPOSED PROJECT SCOPE HEREIN BASED ON RFDS ID # 3370551, VERSION 6.00 LAST UPDATED 05/05/20. (2) EXISTING ANTENNAS TO BE REMOVED (1) NEW ANTENNA CCI — DMP65R—BU4DA (GAMMA SECTOR) (1) NEW ANRENNA CCI — 0PA65R—BU4DA (GAMMA SECTOR) (1) NEW RRUS—4449 B5/B13 (1) NEW RRUS—4448 B14 (1) NEW RRUS—22 B29 IN SHELTER (1) NEW RRUS—22 B29 IN SHELTER (1) NEW RAYCAP UNIT (2) NEW DC POWER CABLES UPGRADE EXISTING BBU WITH (1) NEW RBS 6630 CONTRACTOR SHALL FURNISH ALL MATERIAL WITH THE EXCEPTION OF AT&T SUPPLIED MATERIAL. ALL MATERIAL SHALL BE INSTALLED BY THE CONTRACTOR, UNLESS STATED OTHERWISE.	ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. BUILDING CODE: MASSACHUSETTS BUILDING CODE 780 9TH EDITION ELECTRICAL CODE: 2020 NATIONAL ELECTRIC CODE • FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. • ADA ACCESS REQUIREMENTS ARE NOT REQUIRED. • THIS FACILITY DOES NOT REQUIRE POTABLE WATER AND WILL NOT PRODUCE ANY SEWAGE	REV DATE DESCRIPTION BY 0 03/31/20 90% REVIEW KC 1 04/22/20 FOR PERMIT KC 2 06/19/20 FOR CONSTRUCTION KC 3 08/24/20 FOR CONSTRUCTION KC 4 01/12/21 FOR CONSTRUCTION KC I HEREBY CERTIFY THAT THESE DRAWINGS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE CODES.
	SITE LOCATION MAP	DRAWING INDEX	1
UURISDICTION: CITY OF CAMBRIDGE	HubSpot Lechmare Canal Park Canal Park Regional Hub North Bunke First Street Garage P 20 Museum of Science Street Bus Employees Association	T1 TITLE SHEET SP1 NOTES AND SPECIFICATIONS SP2 NOTES AND SPECIFICATIONS A1 ROOF PLAN A2 EQUIPMENT PLAN A3 ELEVATIONS A4 ANTENNA PLANS	SITE NAME
EMAIL: dr701e@att.com	Charles St.	A5 EQUIPMENT DETAILS	J SITE TOWNE

PROJECT MANAGER:

NORTH BILLERICA, MA 01862 CONTACT: SHARON KEEFE (978) 930-3918 EMAIL:

SITE AQUISITION: ADDRESS:

85 RANGEWAY ROAD, SUITE 102 NORTH BILLERICA, MA 01862 CONTACT: KRISTINA COTTONE (978) 551-8627 EMAIL: Kristina.Cottone@smartlinkllc.com

FULLERTON ENGINEERING CONSULTANTS, LLC 1100 E. WOODFIELD ROAD, SUITE 500 ENGINEER/ARCHITECT:

SCHAUMBURG, IL 60173 MILEN DIMITROV (847) 908-8439 CONTACT: EMAIL: MDimitrov@FullertonEngineering.com

CONSTRUCTION: ADDRESS: **SMARTLINK**

85 RANGEWAY ROAD, SUITE 102 NORTH BILLERICA, MA 01862 MARK DONNELLY (617) 515-2080 CONTACT: EMAIL: mark.donnelly@smartlinkllc.com

PROJECT CONSULTANTS 85 RANGEWAY ROAD, SUITE 102

DIRECTIONS

SCAN QR CODE FOR LINK TO SITE LOCATION MAP





ANTENNA & CABLE CONFIGURATION

CABLE NOTES AND COLOR CODING

GROUNDING DETAILS PLUMBING DIAGRAMS

SHEET NAME

SITE NUMBER:

SITE ADDRESS

TITLE SHEET

SONESTA

MAL02038

40 EDWIN LAND BLVD CAMBRIDGE, MA 02142

SHEET NUMBER

NOTE: DRAWING SCALES ARE FOR 11"x17" SHEETS UNLESS OTHERWISE NOTED

GENERAL CONSTRUCTION

- FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY: CONTRACTOR/CM START WIRELESS
- 2. ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND AT&T PROJECT SPECIFICATIONS.
- GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS, GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK
- ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AN LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIPED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
- 8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
- 10. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFIRM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
- 11. GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
- 12. ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
- 13. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. CONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.
- 14. WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
- 15. CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
- 16. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- 17. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.

- 20. THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
- 21. THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OT 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
- 22. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) EFCTRICAL SAFETY. SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.
- 23. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
- 24. THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.
- 25. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
- 26. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUNDING. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
- 27. THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
- 28. ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
- 28. ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
- 30. CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
- 31. CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
- 32. THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITAT (NO HANDICAP ACCESS REQUIRED).
- 33. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
- 34. NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
- 35. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL B PERFORMED IN ACCORDANCE WITH THE LATEST REVISION AT&T MOBILITY GROUNDING STANDARD "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF GSM/GPRS WIRELESS SITES" AND "TECHNICAL SPECIFICATION FOR FACILITY GROUNDING". IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATION AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
- 36. CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
- 37. CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
- 38. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- 39. NO WHITE STROBE LIGHTS ARE PERMITTED. LIGHTING IF REQUIRED, WILL MEET FAA STANDARDS AND REQUIREMENTS.

40. DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/TIA-222 OR APPLICABLE LOCAL CODES.

- 41. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL
- 42. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS NOTED OTHERWISE.
- 43. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
- 44. ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.
- 45. CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.
- 46. ALL UNUSED PORTS ON ANY ANTENNAS SHALL BE TERMINATED WITH A 50-OHM LOAD TO ENSURE ANTENNAS
- 47. PRIOR TO SETTING ANTENNA AZIMUTHS AND DOWNTILTS, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA MOUNT FOR TIGHTNESS AND ENSURE THAT THEY ARE PLUMB. ANTENNA AZIMUTHS SHALL BE SET FROM TRUE NORTH AND BE ORIENTED WITHIN +/- 5% AS DEFINED BY THE RFDS.
 ANTENNA DOWNTILTS SHALL BE WITHIN +/- 0.5% AS
 DEFINED BY THE RFDS. REFER TO ND-00246.
- 48. JUMPERS FROM THE TMA'S MUST TERMINATE TO OPPOSITE POLARIZATION'S IN EACH SECTOR.
- 49. CONTRACTOR SHALL RECORD THE SERIAL #, SECTOR, AND POSITION OF EACH ACTUATOR INSTALLED AT THE ANTENNAS AND PROVIDE THE INFORMATION TO AT&T.
- 50. TMA'S SHALL BE MOUNTED ON PIPE DIRECTLY BEHIND ANTENNAS AS CLOSE TO ANTENNA AS FEASIBLE IN A VERTICAL POSITION.

TORQUE REQUIREMENTS

- 51. ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH.
- 52. ALL RF CONNECTIONS, GROUNDING HARDWARE AND ANTENNA HARDWARE SHALL HAVE A TORQUE MARK INSTALLED IN A CONTINUOUS STRAIGHT LINE FROM BOTH SIDES OF THE

CONTINUOUS STRAIGHT LINE FROM BOTH SIDES OF THE CONNECTION.

A. RF CONNECTION BOTH SIDES OF THE CONNECTOR.

B. GROUNDING AND ANTENNA HARDWARE ON THE NUT SIDE STARTING FROM THE THREADS TO THE SOLID SURFACE. EXAMPLE OF SOLID SURFACE: GROUND BAR, ANTENNA BRACKET METAL.

FIBER & POWER CABLE MOUNTING

- 53. THE FIBER OPTIC TRUNK CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY, WHEN INSTALLING FIBER OPTIC TRUNK CABLES INTO A CABLE TRAY SYSTEM, THEY SHALL BE INSTALLED INTO AN INTER DUCT AND A PARTITION BARRIER SHALL BE INSTALLED BETWEEN THE 600 VOLT CABLES AND THE INTER DUCT IN ORDER TO SEGREGATE CABLE TYPES, OPTIC FIBER TRUNK CABLES SHALL HAVE APPROVED CABLE RESTRAINTS EVERY (60) SIXTY FEET AND SECURELY FASTENED TO THE CABLE TRAY SYSTEM. NFPA 70 (NEC) ARTICLE 770 RULES SHALL APPLY.
- 54. THE TYPE TC-ER CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY AND SHALL BE SECURED AT INTERVALS NOT EXCEEDING (6) SIX FEET. AN EXCEPTION; WHERE TYPE TC-ER CABLES ARE NOT SUBJECT TO PHYSICAL DAMAGE CABLES SHALL BE PERMITTED TO MAKE A TRANSITION BETWEEN CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY WHICH ARE SERVING UTILIZATION EQUIPMENT OR DEVICES, A DISTANCE (4) SIX EET SHALL NOT BE EXCENSION. (6) SIX FEET SHALL NOT BE EXCEEDED WITHOUT CONTINUOUS SUPPORTING. NFPA 70 (NEC) ARTICLES 338 AND 392 RULES SHALL APPLY.
- 55. WHEN INSTALLING OPTIC FIBER TRUNK CABLES OR TYPE TC-ER CABLES INTO CONDUITS, NFPA 70 (NEC) ARTICLE 300 RULES SHALL APPLY.

COAXIAL CABLE NOTES

- 62. TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO
 - ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED
- 63. CONTRACTOR SHALL VERIFY THE DOWN—TILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
- 84. CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION.
- 65. ALL JUMPERS TO THE ANTENNAS FROM THE MAIN TRANSMISSION LINE SHALL BE 1/2" DIA. LDF AND SHALL NOT EXCEED 6'-0".

- 66. ALL COAXIAL CABLE SHALL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE, IN AN APPROVED MANNER, AT DISTANCES NOT TO EXCEED 4'-0" OC.
- 67. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.
- 68. CONTRACTOR SHALL GROUND ALL EQUIPMENT. INCLUDING ANTENNAS, RET MOTORS, TMA'S, COAX CABLES, AND RET CONTROL CABLES AS A COMPLETE SYSTEM. GROUNDING SHALL BE EXECUTED BY QUALIFIED WIREMEN IN COMPLIANCE WITH MANUFACTURER'S SPECIFICATION AND RECOMMENDATION.
- 69. CONTRACTOR SHALL PROVIDE STRAIN-RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES, COAX CABLES, AND RET CONTROL CABLES. CABLE STRAIN-RELIEFS AND CABLE SUPPORTS SHALL BE APPROVED FOR THE PURPOSE. INSTALLATION SHALL BE IN ACCORDANCE WITH
- 70. CONTRACTOR TO VERIFY THAT EXISTING COAX HANGERS ARE STACKABLE SNAP IN HANGERS. IF EXISTING HANGERS ARE NOT STACKABLE SNAP IN HANGERS THE CONTRACTOR SHALL REPLACE EXISTING HANGERS WITH NEW SNAP IN HANGERS IF

GENERAL CABLE AND EQUIPMENT NOTES

- 71. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, TMAS, DIPLEXERS, AND COAX CONFIGURATION, MAKE AND MODELS PRIOR TO INSTALLATION.
- 72. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S RECOMMENDATIONS.
- 73. CONTRACTOR SHALL REFERENCE THE TOWER STRUCTURAL ANALYSIS/DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION/ROUTING.
- 74. ALL OUTDOOR RF CONNECTORS/CONNECTIONS SHALL BE WEATHERPROOFED, EXCEPT THE RET CONNECTORS, USING BUTYL TAPE AFTER INSTALLATION AND FINAL CONNECTIONS ARE MADE. BUTYL TAPE SHALL HAVE A MINIMUM OF ONE-HALF TAPE WIDTH OVERLAP ON EACH TURN AND EACH LAYER SHALL BE WRAPPED THREE TIMES. WEATHERPROOFING SHALL BE SMOOTH WITHOUT BUCKLING. BUTYL BLEEDING IS NOT ALLOWED.
- 75. IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:
 A. TEMPERATURE SHALL BE ABOVE 50' F.
 B. PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.
 - C. FOR REGULATED TOWERS, FAA/FCC APPROVED PAINT IS REQUIRED.
 D. DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS
- 76. ALL CABLES SHALL BE GROUNDED WITH COAXIAL CABLE 6. ALL CABLES SHALL BE GROUNDED WITH COAXIAL CABLE GROUND KITS. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS.

 A. GROUNDING AT THE ANTENNA LEVEL.

 B. GROUNDING AT MID LEVEL, TOWERS WHICH ARE OVER 200'-0", ADDITIONAL CABLE GROUNDING REQUIRED.

 C. GROUNDING AT BASE OF TOWER PRIOR TO TURNING HORIZONTAL.

 D. GROUNDING OUTSIDE THE EQUIPMENT SHELTER AT ENTRY POORT
- E. GROUNDING INSIDE THE EQUIPMENT SHELTER AT THE ENTRY PORT.
- 77. ALL PROPOSED GROUND BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUND BAR DOWNLEADS A MINIMUM DISTANCE OF 4'-0" BELOW GROUND BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.



550 COCHITUATE ROAD SUITE 550 13 AND 14 FRAMINGHAM, MA 01701



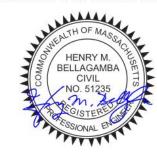
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REV	DATE	DESCRIPTION	BY
0	03/31/20	90% REVIEW	KC
1	04/22/20	FOR PERMIT	KC
2	06/19/20	FOR CONSTRUCTION	KC
3	08/24/20	FOR CONSTRUCTION	KC
4	01/12/21	FOR CONSTRUCTION	KC

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SITE NAME

SONESTA

SITE NUMBER:

MAL02038

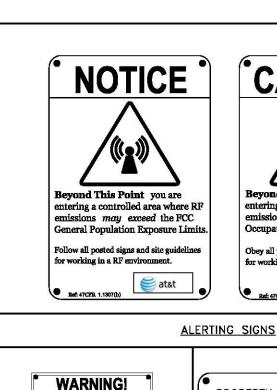
SITE ADDRESS

40 EDWIN LAND BLVD CAMBRIDGE, MA 02142

SHEET NAME

NOTES AND SPECIFICATIONS

SHEET NUMBER











(FOR PROPANE)

CAUTION SIGN

EITHER NOTICE OR CAUTION SIGN (BASED ON

ROOFVIEW RESULTS) AT ANTENNA BARRIER

CAUTION SIGN AT TH

ANTENNAS

CAUTION SIGN BESIDE

INFO SIGN #1, MIN. 9FT ABOVE GROUND

550 COCHITUATE ROAD SUITE 550 13 AND 14 FRAMINGHAM, MA 01701

1362 MELLON ROAD

SUITE 140 HANOVER, MD 21076

1100 E, WOODFIELD ROAD, SUITE 500 SCHAUMBURG, ILLINOIS 60173 TEL: 847-908-8400 www.FullertonEngineering.com

	REV	DATE	DESCRIPTION	BY
AT THE HEIGHT OF	0	03/31/20	90% REVIEW	КC
THE FIRST CLIMBING	1	04/22/20	FOR PERMIT	KC
STEP, MIN 9 FT ABOVE GROUND	2	06/19/20	FOR CONSTRUCTION	KC
ADOVE GROOND	3	08/24/20	FOR CONSTRUCTION	KC
	4	01/12/21	FOR CONSTRUCTION	KC
		7		

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GENERAL SIGNAGE GUIDELINES

X

X

X

ACCESS TO

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ACCESS TO LADDER

STRUCTURE TYPE INFO SIGN #1 INFO SIGN #2 INFO SIGN #3 INFO SIGN #4 STRIPING **NOTICE SIGN TOWERS** ENTRANCE GATES ENTRANCE GATES. SHELTER DOORS OR ON THE OUTDOOR SHELTER DOORS OF ON THE OUTDOOR CLIMBING SIDE OF ON BACKSIDE OF MONOPOLE/MONOPINE/MONOPALM THE TOWER **ANTENNAS** CABINETS CABINETS ENTRANCE GATES, SEC TOWERS/TOWERS WITH HIGH VOLTAGE SHELTER DOORS OR ON THE OUTDOOR CLIMBING SIDE OF ON BACKSIDE OF SHELTER DOORS OR ON THE OUTDOOR CABINETS CABINETS ON THE POLE, NO LESS THAN 3FT BELOW THE ENTRANCE GATES, SHELTER DOORS OR ENTRANCE GATES, SHELTER DOORS OR ON BACKSIDE OF LIGHT POLES/FLAG POLES ANTENNA AND LESS THAN 9FT ABOVE ON THE OUTDOOR CABINETS ON THE OUTDOOR **ANTENNAS** CABINETS GROUND ON THE POLE, NO LESS THAN 3FT
BELOW THE ENTRANCE GATES, ENTRANCE GATES, IF GP MAX VALUE OF MPE AT ANTENNA SHELTER DOORS OR ON BACKSIDE OF SHELTER DOORS OR ON THE OUTDOOR LEVEL IS: 0-99%; NOTICE SIGN; OVER 99%; CAUTION SIGN AT NO LESS THAN 3FT BELOW LITILITY WOOD POLES (JPA) ANTENNA AND LESS THAN 9FT ABOVE CABINETS CABINETS ANTENNA AND 9FT ABOVE GROUND NOTICE OR CAUTION SIGN AT NO LESS THAN 9FT ABOVE GROUND: ONLY IF THE EXPOSURE EXCEEDS 90% OF THE GENERAL PUBLIC EXPOSURE AT EXPOSURE AT 6FT ABOVE GROUND OR AT OUTSIDE OF SURFACE ON THE POLE, NO LESS THAN 3FT BELOW THE ENTRANCE GATES, ENTRANCE GATES, MICROCELLS MOUNTED ON NON-JPA POLES SHELTER DOORS OR ON THE OUTDOOR ON BACKSIDE OF SHELTER DOORS OR ON THE OUTDOOR ANTENNA AND LESS ANTENNAS CARINETS THAN 9FT ABOVE CARINETS GROUND OF ADJACENT BUILDING **TOWERS** AT ALL ACCESS POINTS TO THE ROOF X ON ANTENNAS X CONCEALED ANTENNAS X

🚝 at&t PROPERTY OF AT&T AUTHORIZED PERSONNEL ONLY IN CASE OF EMERGENCY, OR PRIOR TO PERFORMING MAINTENANCE ON THIS SITE, CALL 800-638-2822 AND REFERENCE CELL

ALERTING SIGN

at&t

DANGER DO NOT TOUCH TOWER!

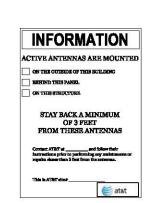
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MAINTAIN AN ADROUATE

CLEARANCE BETWEEN TOWER SUPPORTS AND GUY WIRES

INFO SIGN #4

INFORMATION



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NOTES FOR ROOFTOP SITES:

ANTENNAS MOUNTED FACING OUTSIDE

ANTENNAS ON SUPPORT STRUCTURE

RADIATION AREA IS WITHIN 3FT FROM

RADIATION AREA IS BEYOND 3FT FROM

CHURCH STEEPLES

WATER STATIONS

THE BUILDING

ROOFVIEW GRAPH

NTENNA

. EITHER NOTICE OR CAUTION SIGNS NEED TO BE POSTED AT EACH SECTOR AS CLOSE AS POSSIBLE TO: THE OUTER EDGE OF THE STRIPED OFF AREA OR THE OUTER ANTENNAS OF THE

ON BACKSIDE OF

ANTENNAS

ON BACKSIDE OF

ANTENNAS

2. IF ROOFVIEWS SHOWS: ONLY BLUE = NOTICE SIGN, BLUE AND YELLOW = CAUTION SIGN, ONLY YELLOW = CAUTION SIGN TO BE INSTALLED

X

X

ADJACENT TO EACH ANTENNA

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3. SHOULD THE REQUIRED STRIPING AREAS INTERFERE WITH ANY STRUCTURE OR EQUIPMENT (A/C, VENTS, ROOF HATCH, DOORS, OTHER ANTENNAS, DISHES, ETC.). PLEASE NOTIFY AT&T TO MODIFY THE STRIPING AREA, PRIOR TO STARTING THE WORK.

INFO SIGN #1

at&t

carse con la ofictua de la udo

INFO SIGN #2

INFO SIGN #3

SIGNAGE GUIDELINES CHART

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X

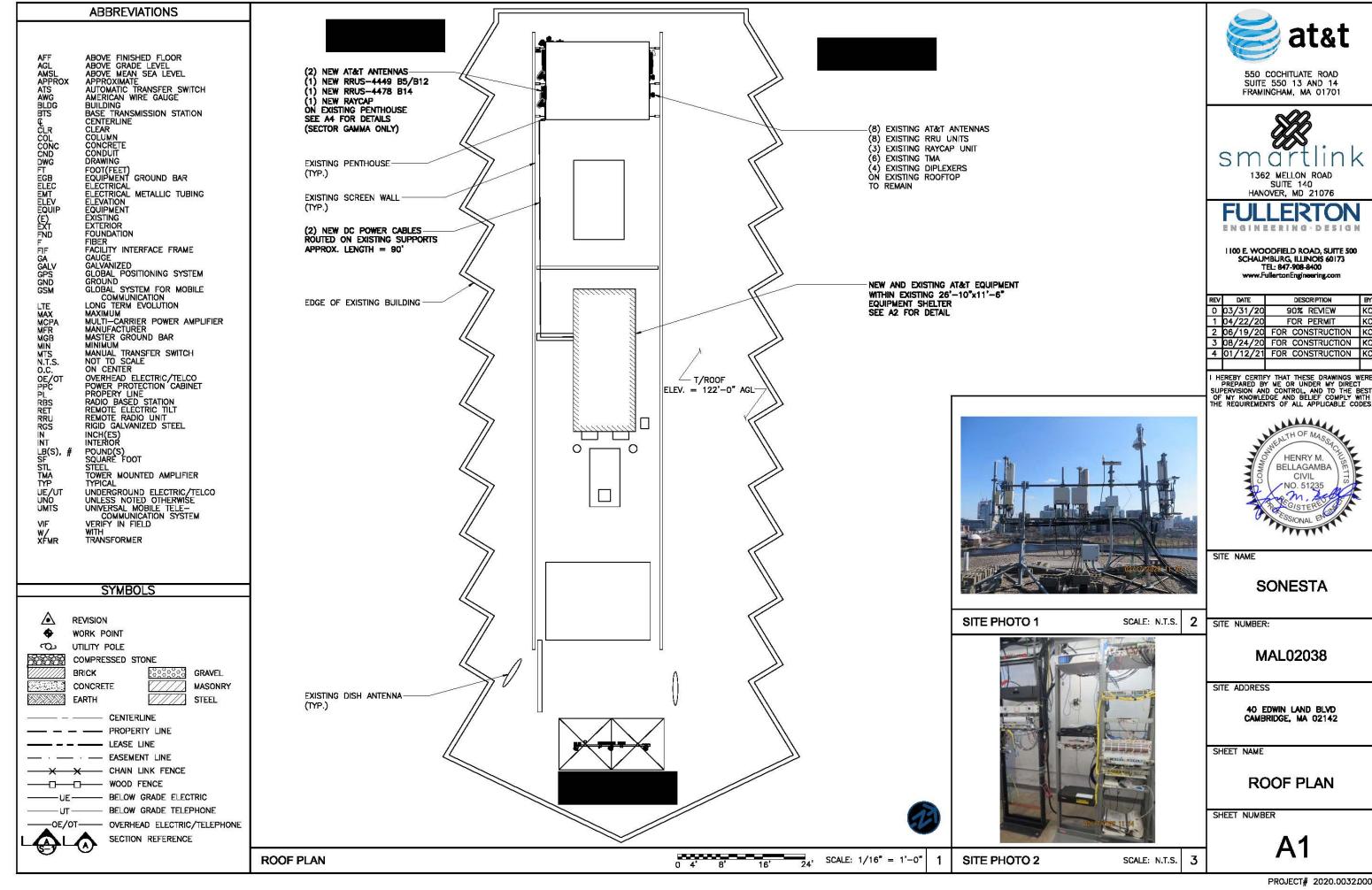
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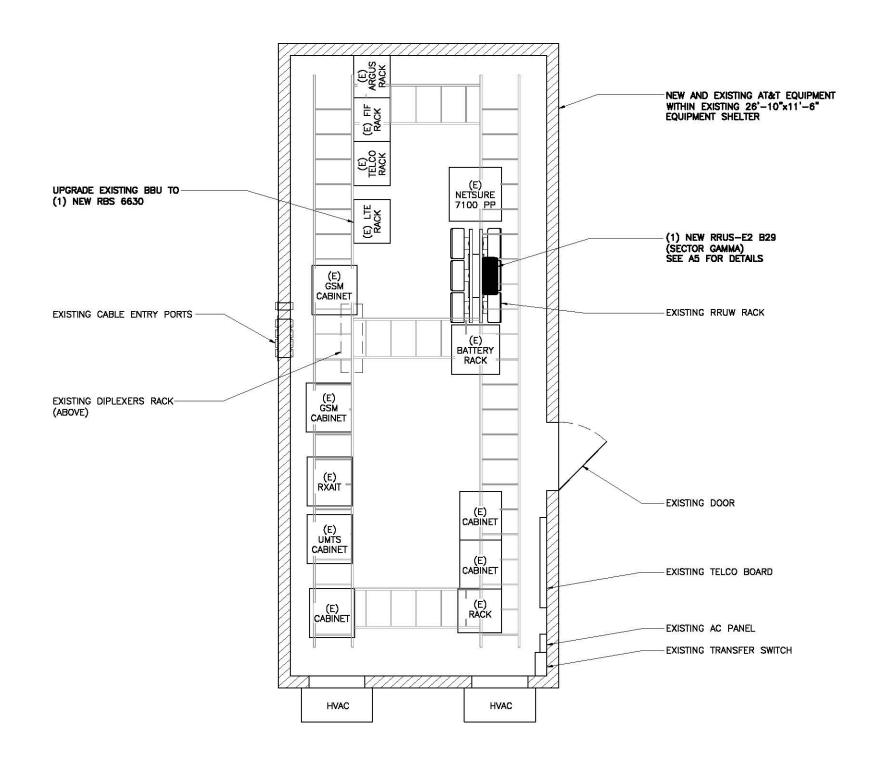
ACCESS TO

ACCESS TO LADDER

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PROJECT# 2020.0032.0002







550 COCHITUATE ROAD SUITE 550 13 AND 14 FRAMINGHAM, MA 01701

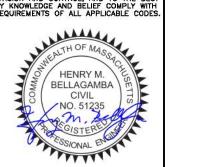


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SITE NAME

SONESTA

SITE NUMBER:

MAL02038

SITE ADDRESS

40 EDWIN LAND BLVD CAMBRIDGE, MA 02142

SHEET NAME

EQUIPMENT PLAN

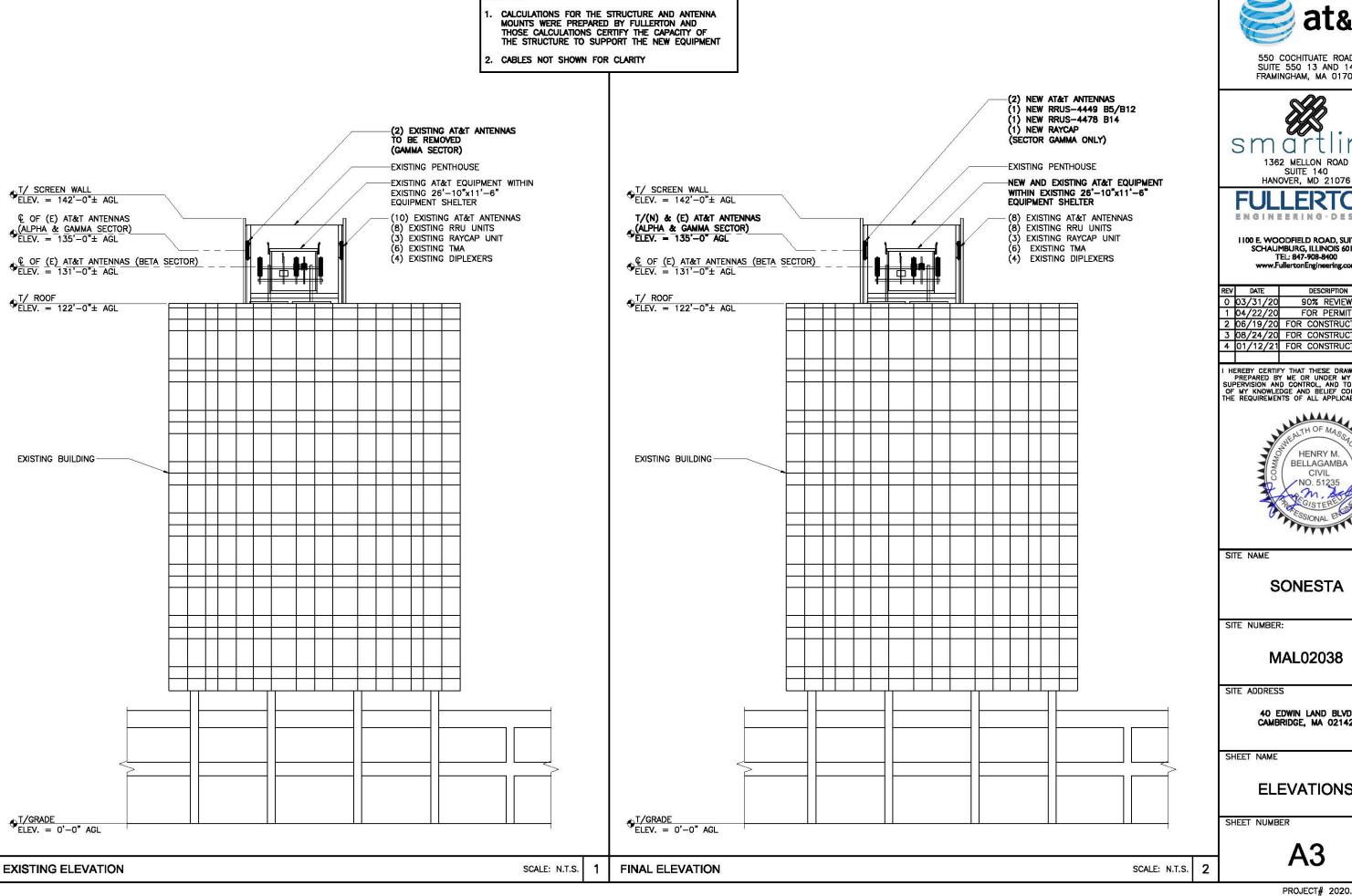
SHEET NUMBER

42

13

0 1' 2' 4' 6' SCALE: 1/4" = 1'-0" 1

EQUIPMENT PLAN



NOTES:



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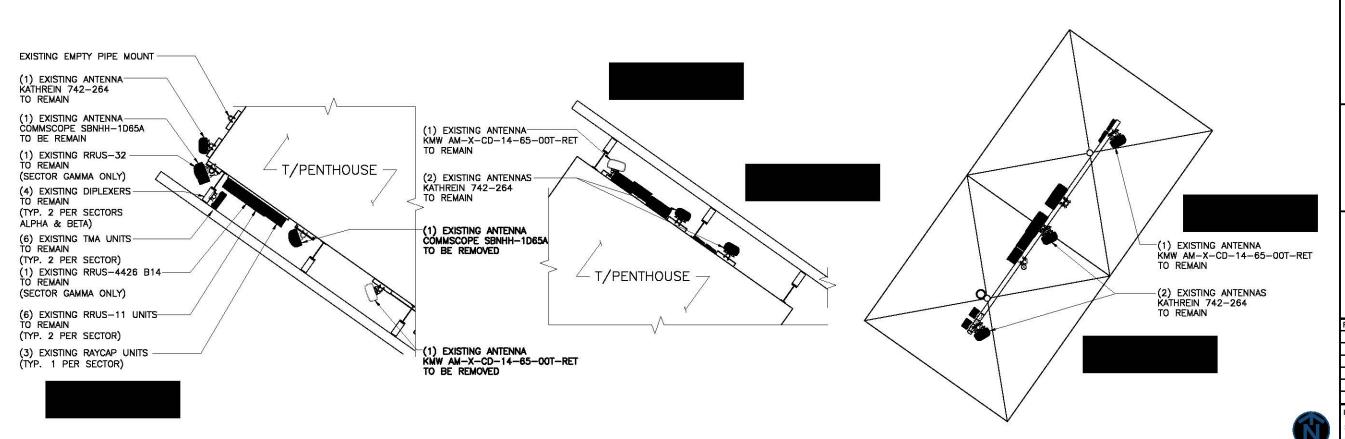


SONESTA

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ELEVATIONS





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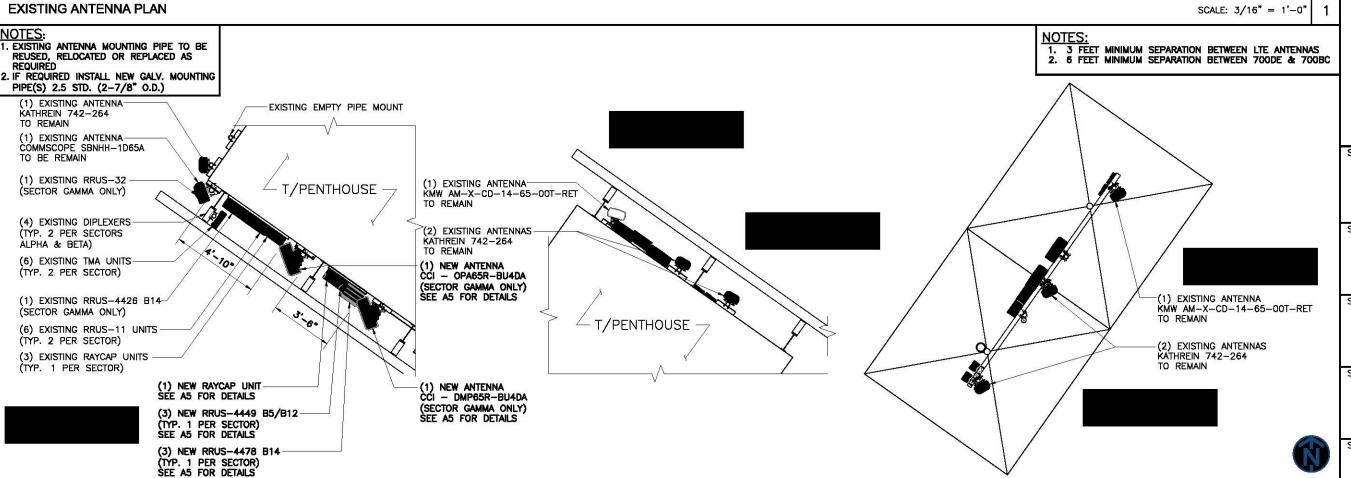
SHEET NAME

ANTENNA PLANS

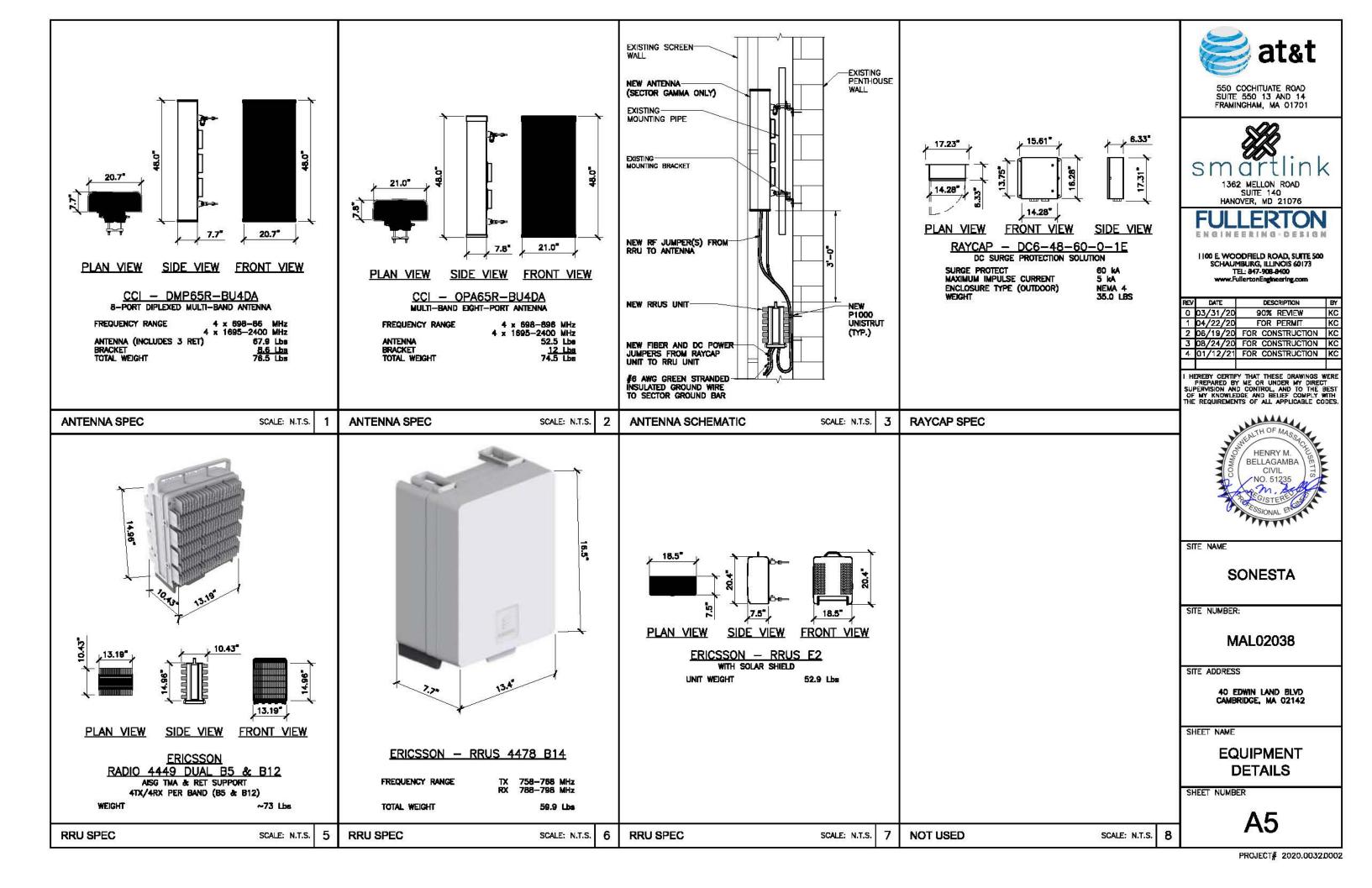
SHEET NUMBER

SCALE: 3/16" = 1'-0"

A4



FINAL ANTENNA PLAN



FINAL ANTENNA CONFIGURATION AND CABLE SCHEDULE SUPPLIED BY AT&T WIRELESS, FROM RF CONFIG. DATED (05/05/20)

SECTOR	SECTOR ANTENNA ST.		ANTENNA		TMA/RRU UNIT		ANTENNA ZIMUTH CL FROM	CABLE FEEDE	R	RAYCAP						
SECTOR	NUMBER	STATUS & TYPE	MODEL NUMBER	VENDOR	(BY ANTENNAS)	(BY EQUIPMENT ON GROUND)	AZIMOTH	GROUND	TYPE	LENGTH	UNIT					
		A-1	(E) LTE 700/1900	AM-X-CD-14-65	KMW	(1) EXISTING RRUS-11 B12	(2) EXISTING DIPLEXERS	17"	135'-0"	(1) EXISTING FIBER CABLE	120'-0"	_				
	Α-1	ANTENNA	-00T-RET	VIAIAA	(1) EXISTING RRUS-11 B2	(2) EXISTING BIT LEXENS	17	135 -0	(2) EXISTING DC POWER CABLES	120'-0"	N S					
ALPHA	A-2	I	Ħ	æ	=	-	:	ſ	-		(1) (E) DC6-48-60-0-1E UNIT					
∄	A-3	(E) UMTS	742–264	KATHREIN	(2) EXISTING TMA UNITS	_	30"	135'-0"	1-5/8"¢ LDF7-50A	120'-0"	6-48					
	, ,	ANTENNA	742-204	KAIRKEIN	POWERWAVE LGP21401	_	30	135 -0	1-5/8"ø LDF7-50A	120'-0"	Š					
	A-4	(E) GSM	742–264	KATHREIN	(2) EXISTING DIPLEXERS	(2) EXISTING DIPLEXERS	30"	135'-0"	1-5/8"ø LDF7-50A	120'-0"	1) (E					
	n=±	ANTENNA	7+2-20+	BAILINEIN	(2) EXISTING BIT LEXENS	(2) EXISTING BILEEKERS	30	133 -0	1-5/8"ø LDF7-50A	120'-0"						
	B-1		B_1	(E)	(E)	742–264	KATHREIN	(2) EXISTING TMA UNITS	(2) EXISTING DIPLEXERS	150"	131'-0"	1-5/8°¢ LDF7-50A	130'-0"	-		
			ANTENNA	742-204	RATINEIN	(2) EXISTING TWA GITTS	(2) EXISTING BILECKERS	130	131 –0	1-5/8°¢ LDF7-50A	130'-0"	Š 5				
l ≰	B-2	Т	=	E	-	-	6 6	-			(1) (E) DC6-48-60-0-1E UNIT					
BETA	(E) LTE B-3 700/1900 ANTENNA	B-3 700/1900 AM-X-CD-1	AM-X-CD-14-65	KMW	(2) EXISTING TMA UNITS	2300	155	131'-0"	(1) EXISTING FIBER CABLE	130'-0"	5-48					
			-00T-RET	VIMIAA	`PÓWERWAVE LGP21401	_	155"	131 -0	(2) EXISTING DC POWER CABLES	130'-0"	Š G					
	B-4	(E) GSM	742–264	KATHREIN	(2) EXISTING DIPLEXERS	(2) EXISTING DIPLEXERS	150	131'-0"	1-5/8*ø LDF7-50A	130'-0"	£.					
	D	ANTENNA	7.12 231		(2) EXISTING BIT LEXENS	(2) EXISTING BILECKERS	130	131 –0	1-5/8*ø LDF7-50A	130'-0"	Ŭ					
	C-1 700/850	C-1 700	(N) LTE 700/850/	DMP65R-BU4DA	CCI	(2) EXISTING RRUS-11 B2	_	250"	135'-0"	(1) EXISTING FIBER CABLE	90'-0"	│ _⊢ ᇀ│				
			1900/5G ANTENNA	J.III	33.	(1) NEW RRUS-4449 B5/B12		200	100 0	(2) EXISTING DC POWER CABLES	90'-0"	E UNIT				
	C_2	C=2	C-2	C-2	C-2	C-2	(N) LTE 700/AWS OPA65R-BU4	OPA65R-BU4DA	CCI	(1) EXISTING RRUS-4426 B66	_	250*	135'-0"	SEE ANTENNA C-1 FOR FIBER		DC6-48-60-0-1E UNIT
GAMMA		ANTENNA			(1) NEW RRUS-4478 B14	50-96	200		(2) NEW DC POWER CABLES	90'-0"	-09-g					
₹	C-3	(R) LTE	SBNHH-1D65A	COMMSCOPE	(1) EXISTING RRUS-32 B30	(2) EXISTING DIPLEXERS	250"	135'-0"	1-5/8*ø LDF7-50A	90'-0"	6-48					
	2040 (ST)	700/WCS ANTENNA	veccessions Participals	on settimetarno de significa		(1) NEW RRUS-E2 B29	9,000,93,53,83		1-5/8"ø LDF7-50A	90'-0") DG (E)					
	C-4	(E) UMTS	742–264	KATHREIN	(2) EXISTING TMA UNITS	_	270"	135'-0"	1-5/8"¢ LDF7-50A	90'-0"	(C) (E)					
		ANTENNA			POWERWAVE LGP21401			1999	1-5/8"¢ LDF7-50A	90'-0"						



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SITE NAME

SONESTA

SITE NUMBER:

MAL02038

SITE ADDRESS

40 EDWIN LAND BLVD CAMBRIDGE, MA 02142

SHEET NAME

ANTENNA &
CABLE
CONFIGURATION

SHEET NUMBER

A6

ANTENNA & CABLE CONFIGURATION SCALE: N.T.S.

- CONTRACTOR IS TO REFER TO AT&T'S MOST CURRENT RADIO FREQUENCY DATA SHEET (RFDS) PRIOR TO CONSTRUCTION.
- 2. THE SIZE, HEIGHT, AND DIRECTION OF THE ANTENNAS SHALL BE ADJUSTED TO ACHIEVE THE AZIMUTHS SPECIFIED AND LIMIT SHADOWING AND TO MEET THE SYSTEM REQUIREMENTS.
- 3. CONTRACTOR SHALL VERIFY THE HEIGHT OF THE ANTENNA WITH THE AT&T WIRELESS PROJECT MANAGER.
- 4. VERIFY TYPE AND SIZE OF TOWER LEG PRIOR TO ORDERING ANY ANTENNA MOUNT.
- 5. UNLESS NOTED OTHERWISE THE CONTRACTOR MUST PROVIDE ALL MATERIAL NECESSARY.
- 6. ANTENNA AZIMUTHS ARE DEGREES OFF OF TRUE NORTH, BEARING CLOCKWISE, IN WHICH ANTENNA FACE IS DIRECTED.
 ALL ANTENNAS (AND SUPPORTING STRUCTURES AS PRACTICAL) SHALL BE ACCURATELY ORIENTED IN THE SPECIFIED DIRECTION
- 7. CONTRACTOR SHALL VERIFY ALL RF INFORMATION PRIOR TO CONSTRUCTION.
- 8. SWEEP TEST SHALL BE PERFORMED BY GENERAL CONTRACTOR AND SUBMITTED TO AT&T WIRELESS CONSTRUCTION SPECIALIST. TEST SHALL BE PERFORMED PER AT&T WIRELESS STANDARDS.
- 9. CABLE LENGTHS WERE DETERMINED BASED ON THE DESIGN DRAWING. CONTRACTOR TO VERIFY ACTUAL LENGTH DURING PRE—CONSTRUCTION WALK.
- 10. CONTRACTOR TO USE ROSENBERGER FIBER LINE HANGER COMPONENTS (OR ENGINEER APPROVED EQUAL).

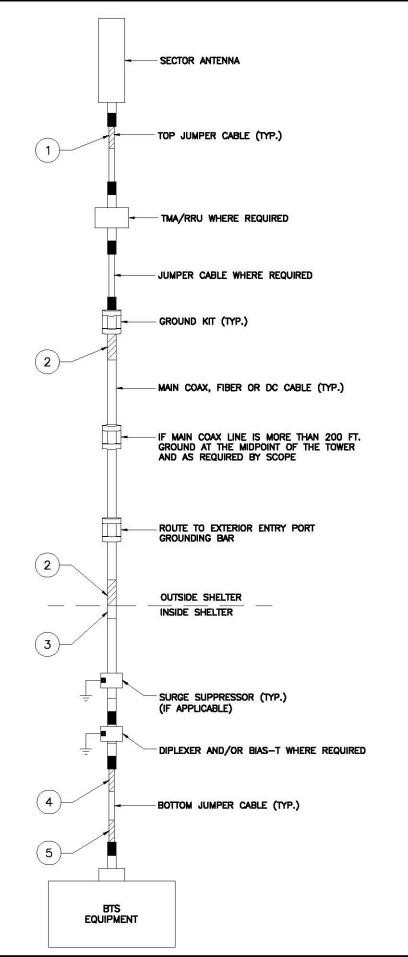
ANTENNA AND CABLING NOTES

SCALE: N.T.S. 1

	RF, DC, & COAX CABLE MARKING LOCATIONS TABLE						
NO	LOCATIONS						
1	EACH TOP-JUMPER SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS.						
2	EACH MAIN COAX SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS NEAR THE TOP-JUMPER CONNECTION AND WITH (1) SET OF 3/4" WIDE COLOR BANDS JUST PRIOR TO ENTERING THE BTS OR TRANSMITTER BUILDING.						
3	CABLE ENTRY PORT ON THE INTERIOR OF THE SHELTER.						
4	ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF THE BOTTOM JUMPER.						
(5)	ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF THE BOTTOM JUMPER.						

CABLE MARKING DIAGRAM SCALE: N.T.S. 2

- 1. THE ANTENNA SYSTEM COAX SHALL BE LABELED WITH VINYL TAPE.
- 2. THE STANDARD IS BASED ON EIGHT COLORED TAPES—RED, BLUE, GREEN, YELLOW, ORANGE, BROWN, WHITE, AND VIOLET. THESE TAPES MUST BE 3/4" WIDE & UV RESISTANT SUCH AS SCOTCH 35 VINYL ELECTRICAL COLOR CODING TAPE AND SHOULD BE READILY AVAILABLE TO THE ELECTRICIAN OR CONTRACTOR ON SITE.
- 3. USING COLOR BANDS ON THE CABLES, MARK ALL RF CABLE BY SECTOR AND CABLE NUMBER AS SHOWN ON "CABLE COLOR CHART".
- 4. WHEN AN EXISTING COAXIAL LINE THAT IS INTENDED TO BE A SHARED LINE BETWEEN TECHNOLOGIES IS ENCOUNTERED, THE CONTRACTOR SHALL REMOVE THE EXISTING COLOR CODING SCHEME AND REPLACE IT WITH THE COLOR CODING STANDARD. IN THE ABSENCE OF AN EXISTING COLOR CODING AND TAGGING SCHEME, OR WHEN INSTALLING PROPOSED COAXIAL CABLES, THIS GUIDELINE SHALL BE IMPLEMENTED AT THAT SITE REGARDLESS OF TECHNOLOGY.
- ALL COLOR CODE TAPE SHALL BE 3M-35 AND SHALL BE INSTALLED USING A MINIMUM OF (3) THREE WRAPS OF TAPE AND SHALL BE NEATLY TRIMMED AND SMOOTHED OUT SO AS TO AVOID UNRAVELING.
- ALL COLOR BANDS INSTALLED AT THE TOP OF THE TOWER SHALL BE A MINIMUM OF 3" WIDE, AND SHALL HAVE A MINIMUM OF 3/4" OF SPACE BETWEEN EACH COLOR.
- 7. ALL COLOR CODES SHALL BE INSTALLED SO AS TO ALIGN NEATLY WITH ONE ANOTHER FROM SIDE-TO-SIDE.
- 8. IF EXISTING CABLES AT THE SITE ALREADY HAVE A COLOR CODING SCHEME AND THEY ARE NOT INTENDED TO BE REUSED OR SHARED WITH THE NEW TECHNOLOGY, THE EXISTING COLOR CODING SCHEME SHALL REMAIN UNTOUCHED.





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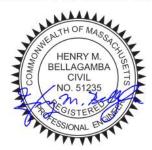


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SITE ADDRESS

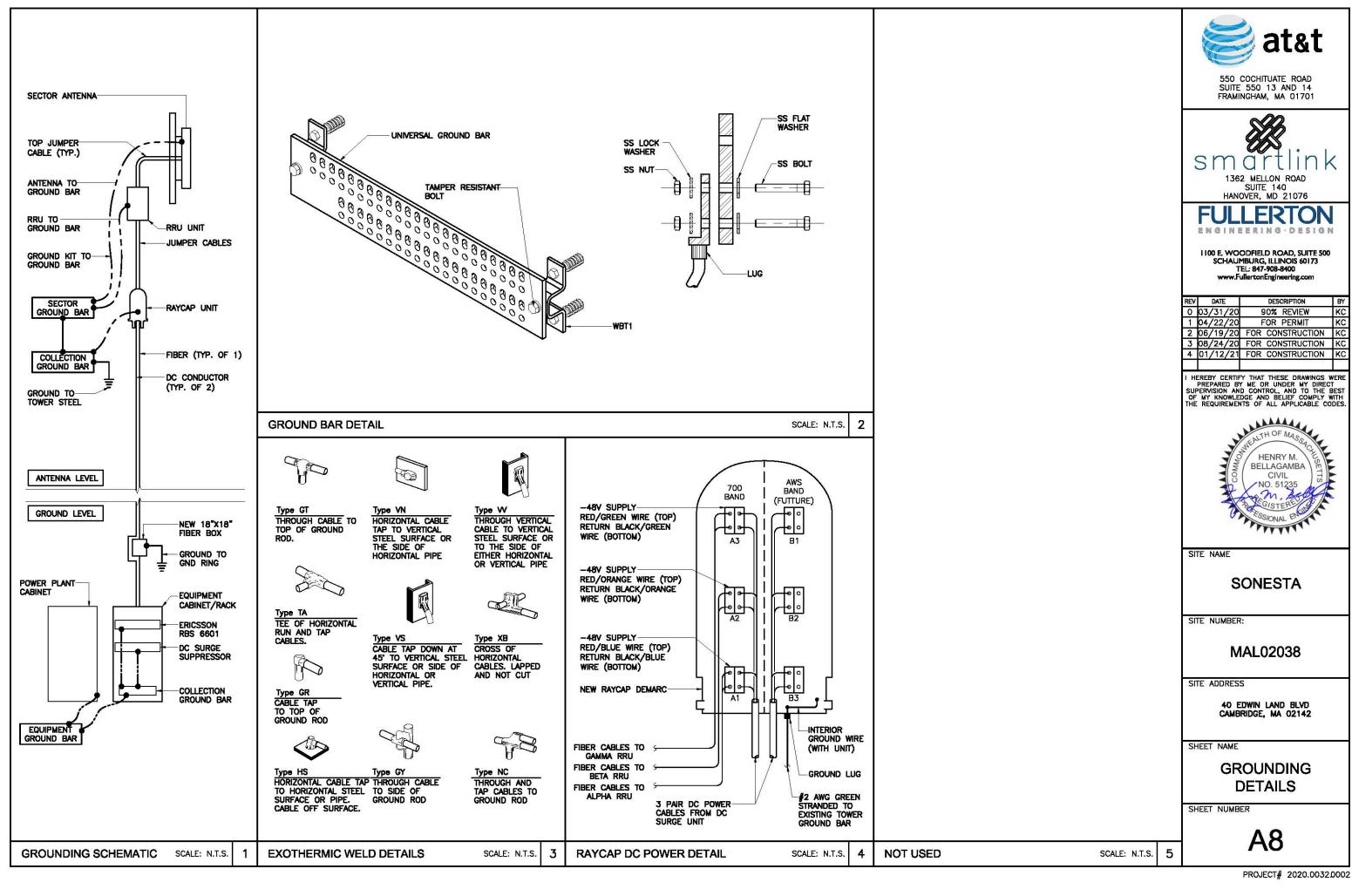
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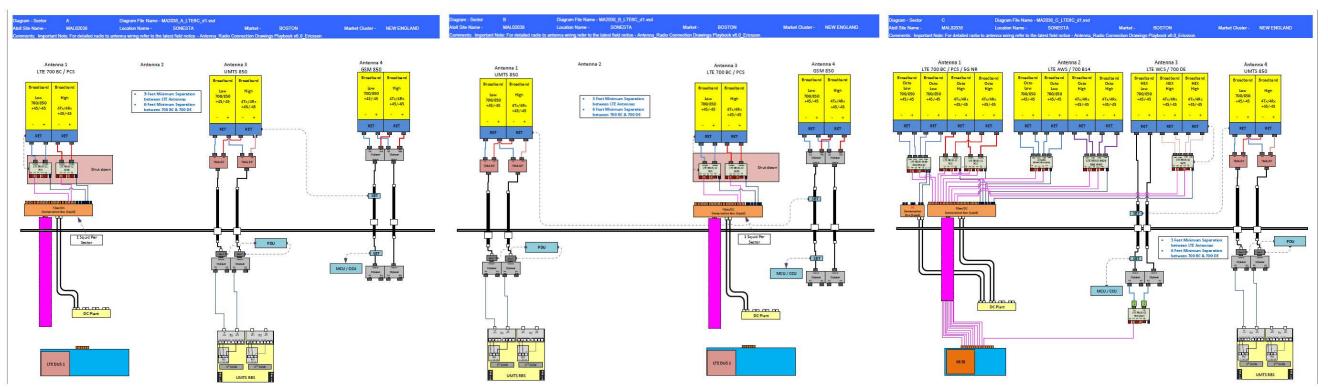
SHEET NAME

CABLE NOTES AND COLOR CODING

SHEET NUMBER

A7







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1362 MELLON ROAD SUITE 140 HANOVER, MD 21076

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SHEET NAME

PLUMBING DIAGRAMS

SHEET NUMBER

A9

*BASED ON RFDS V5.0, DATED (05/05/20)

PLUMBING DIAGRAMS

SCALE: N.T.S.

STRUCTURAL ANALYSIS REPORT

Prepared for: Smartlink / AT&T

New Antenna and RRH's Installation on Existing Rooftop

Site No.: MAL02038 FA Number: 10007272 Site Name: **SONESTA** 5 Cambridge Parkway Cambridge, MA 02142

January 15, 2021

Rev. II: New RFDS REV. 6.0

Abraham J. Rokach, P.E.



Project Number: 2020.0032.0002

Summary

The structural analysis was performed by Fullerton, as requested by the client, to determine the conformance of existing structure with the governing Massachusetts Building Code 9TH Edition (2015 International Building Code with amendments) and the industry standard, TIA-222-G (Structural Standards for Steel Antenna Towers and Antenna Supporting Structures). The analysis considers the existing/new structural properties, existing antennas, proposed antennas and the required loading criteria.

Scope

- Determine adequacy of the existing wall mounts to support the proposed antenna installation.
- Determine adequacy of the existing and new RRH mount to support the proposed RRH installation.
- Determine adequacy of the existing anchors to support the proposed Antenna and RRH installation.

Conclusion

- The existing wall mount is adequate to support the proposed antenna installation.
- The existing and new RRH mount is adequate to support the proposed RRH installation.
- The existing anchors are adequate to support the proposed antennas and RRH installation.

Analysis Data

The following is based on information provided by the client, field investigation, and other determination by Fullerton Engineering Consultants or third parties.

References: Site Walk photos dated 02/17/2020

Mount Analysis by Fullerton Engineering dated 06/11/2018 As-Built In Progress RFDS by AT&T dated 05/05/2020, Rev. 6.0

Fullerton Engineering Consultants, LLC

ELEV. (FT=AGL)	APPURTENANCE
135'-0"	Proposed (Sector Gamma) (1) New CCI DMP65R-BU4DA Antenna (1) New CCI OPA65R-BU4DA Antenna (1) Ericsson RRUS-4478 B14 Unit (1) Ericsson RRUS-4449 B5/B12 Unit (1) DC Squid Unit (1) Ericsson RRUS E2 B29 – at grade
	New antennas will be installed on existing wall mount attached to the penthouse wall. New RRU units and raycap will be installed on new/existing RRU unistrut frames mounted on existing penthouse wall.
135'-0"	Existing Sector Alpha (To Remain) (1) KMW AM-X-CD-14-65-00T-RET Antennas (2) Kathrein 742-264 Antenna (3) Ericsson RRUS – 11 B12 Units (1) DC Fiber Squid (2) Powerwave LGP 21401 TMA's (2) Kathrein 782-10250 Diplexers Antennas and equipment installed on existing wall mounts attached to existing penthouse wall.
131'-0"	Existing Sector Beta (To Remain) (1) KMW AM-X-CD-14-65-00T-RET Antennas (2) Kathrein 742-264 Antenna (3) Ericsson RRUS 11 B12 (1) DC Fiber Squid (2) Powerwave LGP 21401 TMA's (2) Kathrein 782-10250 Diplexers Antennas and equipment are attached to the existing sled mount on the existing roof.
135'-0"	Existing Sector Gamma (To Remain) (1) Andrew SBNHH-1D65A (1) Kathrein 742-264 (2) Ericsson RRUS – 11 B2 Units (1) Ericsson RRUS – 4426 B66 Units (1) Ericsson RRUS 32 B30 Units (2) Powerwave LGP 210401 TMA's (1) DC Fiber Squid Antennas and equipment are installed on existing wall mounts attached to existing penthouse wall.

Assumptions

This analysis is based on the theoretical capacity of the members and is not a condition assessment of the structure. The analysis is based solely on the information supplied, and the results, in turn, are only as accurate as data extracted from this information. Fullerton has been instructed by the client to assume the information supplied is accurate, and Fullerton has made no independent determination of its accuracy. The exception to the previous statement is if Fullerton has been contracted by the client to provide an independent structural mapping report of the structure and related appurtenances, in which case Fullerton has made an independent determination of the accuracy of the information resulting from the mapping report.

- The structural member sizes and geometry are considered accurate as supplied. The material grade is as per data supplied and/or as assumed and stated in the materials section.
- The existing structure is assumed to have been properly maintained. The existing structure is assumed to be in good condition with no structural defects and with no deterioration to its member capacities.
- The antenna configuration is as supplied and/or stated in the analysis section. It is assumed to be complete and accurate. All antennas, mounts, remote radios, cables and cable supports are assumed to be properly installed and supported as per the manufacturer's requirements.
- The antennas, mounts, remote radios, cables and cable supports stated in the appurtenance loading schedule represent Fullerton's understanding of the overall antenna configuration. If the actual configuration is different than above, then this analysis is invalid. Please refer to this report for the projected wind areas used in the calculations for antennas and mounts. If variations or discrepancies are identified, please inform Fullerton.
- Some assumptions are made regarding antenna and mount sizes and their projected areas based on a best interpretation of the data supplied and a best knowledge of antenna type and industry practice.
- All welds and connections are assumed to develop at least the member capacity, unless determined otherwise and explicitly stated in this report.
- All prior structural modifications, if any, are assumed to be as per date supplied/ available, to be properly installed and to be fully effective.

Fullerton Engineering Consultants, LLC

Scope and Limitations

The engineering services rendered by Fullerton Engineering Consultants, LLC. (Fullerton) in connection with this structural analysis are limited to an analysis of the structure, size and capacity of its members. Fullerton does not analyze the fabrication, including welding and connection capacities, except as included in this report.

The information and conclusions contained in this report were determined by application of the current engineering standards and analysis procedures and formulae, and Fullerton assumes no obligation to revise any of the information or conclusions contained in this report in the event such engineering and analysis procedures and formulae are hereafter modified or revised.

Fullerton makes no warranties, expressed or implied in connection with this report and disclaims any liability arising from original design, material, fabrication and erection deficiencies or the "as-built" condition of this structure.

Installation procedures and loading are not within the scope of this report and should be performed and evaluated by a competent contractor.

Fullerton Engineering Consultants, LLC

Section I

Structural Calculations

Fullerton Engineering Consultants, LLC.

Date: 1/15/2021

Analysis and Design Criteria



Elevation of Antenna Centerline Above Ground

z := 135f

Structure Height Above Grade

h := 122

Ultimate Design 3-Second Gust Wind Speed

V_{ult} := 128mph *IBC 2015: Section 1609*

Equivalent Nominal Wind Speed

 $V := V_{ull} \cdot \sqrt{0.6} = 99.15 \cdot mph$ IBC 2015: Section 1609.3.1

Basic Wind Speed: 3-Second Gust

V := 105 mph

(Governs) ANSI/TIA-222-G: ANNEX B

Basic Wind Speed (with ice): 3-Second Gust

10 mph

ANSI/TIA-222-G: ANNEX B

Ice Thickness

t_i := 1in

ANSI/TIA-222-G: ANNEX B

Structure Class

ANSI/TIA-222-G: Section 2.6.6.2

Exposure Category

ANSI/TIA-222-G: Section 2.6.6.2

Topographic Category

1 💙

ANSI/TIA-222-G: Section 2.6.6.2

Gust Effect Factor

_{3h} := 1

ANSI/TIA-222-G, Section 2.6.9

Height of Crest Above Surrounding Terrain

H := 5f

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Importance Factor for Wind

 $I_{wind} = 1$

ANSI/TIA-222-G: Table 2-3

Importance Factor for Wind with Ice

 $I_{\text{windice}} = 1$

ANSI/TIA-222-G: Table 2-3

Wind Direction Probability Factor

 $K_d = 0.95$

ANSI/TIA-222-G: Table 2-2

Velocity Pressure Coefficient

 $K_7 = 1.35$

ANSI/TIA-222-G: Section 2.6.5.2

Topographic Factor

 $K_{71} = 1$

ANSI/TIA-222-G: Section 2.6.6.4

 $q_z := max \left(0.00256 \cdot K_z \cdot K_{zt} \cdot K_{d} \cdot I_{wind} \cdot V^2 \cdot psf \right)$

 $q_z = 36.15 \cdot psf$

Velocity Pressure ANSI/TIA-222-G: Section 2.6.9.6.

 $q_{z.ice} := max \bigg(0.00256 \cdot K_z \cdot K_{zt} \cdot K_{d} \cdot I_{windice} \cdot V_i^2 \cdot psf \bigg)$

 $q_{z,ice} = 5.25 \cdot psf$

Velocity Pressure ANSI/TIA-222-G: Section 2.6.9.6.

Fullerton Engineering Consultants, LLC.

Date: 1/15/2021

Proposed CCI DMP65R-BU4DA Antenna **Height** Width/Diameter Depth/Diameter Weight Shape height := 48in width := 20.7in depth := 7.7in weight := 67.9lbf Flat ○ Round Þ Dead Load $DL_1 := weight$ $= 33.95 \, lbf$ $F_{F1} := F_{F}$ $= 149.65 \, lbf$ Wind Load on Front Face Wind Load on Side Face $F_{S1} := F_S$ $= 63.37 \, lbf$ $DL_{1,ice} := DL_{ice}$ $= 78.72 \, lbf$ Dead Load Ice F_{F1.ice} Wind Load on Front Face $F_{F1.ice} := F_{F.ice}$ $= 29.1 \, lbf$ $= 15.08 \, lbf$ Wind Load on Side Face $F_{S1.ice} := F_{S.ice}$ Proposed CCI OPA65R-BU4DA Antenna Width/Diameter Depth/Diameter **Height** Weight Shape Flat height := 48.2in width := 21in depth := 7.8in weight := 74.5lbf○ Round Þ Dead Load $DL_2 := weight$ $= 37.25 \, lbf$ Wind Load on Front Face $= 152.45 \, lbf$ $F_{F2} := F_F$ Wind Load on Side Face $= 64.34 \, lbf$ DL_{2.ice} $DL_{2.ice} := DL_{ice}$ Dead Load Ice $= 79.8 \, lbf$ F_{2.ice} $= 29.55 \, lbf$ Wind Load on Front Face $F_{F2.ice} := F_{F.ice}$ Wind Load on Side Face $F_{S2.ice} := F_{S.ice}$ $= 15.25 \, lbf$

Fullerton Engineering Consultants, LLC.

Date: 1/15/2021

Proposed Ericsson RRUS-4449 B5/B12

height := 14.16in

Height

Width/Diameter
width := 13.19in

Depth/Diameter

depth := 10.19in

Weight

weight := 73lbf

<u>Shape</u>

FlatRound

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 $DL_6 := weight$

 $F_{F6} := F_F$

 $F_{S6} := F_{S}$

 $DL_{6.ice} := DL_{ice}$

 $F_{F6.ice} := F_{F.ice}$

 $F_{S6.ice} := F_{S.ice}$

 $\frac{DL_6}{2} = 36.5 \, lbf$

 $\frac{F_{F6}}{2} = 28.13 \, \text{lbf}$

 $\frac{F_{S6}}{2} = 21.73 \, \text{lbf}$

 $\frac{DL_{6.ice}}{2} = 37.55 \, lbf$

 $\frac{F_{\text{F6.ice}}}{2} = 7.3 \, \text{lbf}$

 $\frac{F_{\text{S6.ice}}}{2} = 6.07 \, \text{lbf}$

Dead Load

Wind Load on Front Face

Wind Load on Side Face

Dead Load

Wind Load on Front Face

Wind Load on Side Face

Proposed Ericsson 4478 B14

Height := 16.5in

Width/Diameter

width := 13.4in

Depth/Diameter

depth := 7.7in

Weight

weight := 60lbf

<u>Shape</u>

FlatRound

Þ

 $DL_7 := weight$

 $F_{F7} := F_F$

 $F_{S7} := F_S$

 $DL_{7.ice} := DL_{ice}$

 $F_{F7.ice} := F_{F.ice}$

 $F_{S7.ice} := F_{S.ice}$

 $\frac{DL_7}{2} = 30 \, lbf$

 $\frac{F_{F7}}{2} = 33.3 \, \text{lbf}$

 $\frac{F_{S7}}{2} = 19.14 \, \text{lbf}$

 $\frac{DL_{7.ice}}{2} = 33.98 \, lbf$

 $\frac{F_{\text{F7.ice}}}{2} = 8.31 \, \text{lbf}$

 $\frac{\mathsf{F}_{\mathsf{S7.ice}}}{2} = 5.68 \, \mathsf{lbf}$

Dead Load

Wind Load on Front Face

Wind Load on Side Face

Dead Load

Wind Load on Front Face

Wind Load on Side Face

Fullerton Engineering Consultants, LLC.

Date: 1/15/2021

Proposed RRUS E2	B29 - at grade			
<u>Height</u>	Width/Diameter	Depth/Diameter	<u>Weight</u>	<u>Shape</u>
height := 20.4in	width := 18.5in	depth := 7.5in	weight := 60lbf	● Flat
Þ			_	○ Round
$DL_8 := weight$		$\frac{DL_8}{2} = 30I$	bf	Dead Load
$F_{F8} := F_F$		$\frac{F_{F8}}{2} = 56.8$	4 lbf	Wind Load on Front Face
$F_{S8} := F_S$		$\frac{F_{S8}}{2} = 23.2$	23 lbf	Wind Load on Side Face
$DL_{8,ice} := DL_{ice}$		$\frac{DL_{8,ice}}{2} = 4$	42.34 lbf	Dead Load
$F_{F8.ice} := F_{F.ice}$		$\frac{F_{F8.ice}}{2} = 1$	2.63 lbf	Wind Load on Front Face
$F_{S8.ice} := F_{S.ice}$		$\frac{F_{S8.ice}}{2} = 6$	5.62 lbf	Wind Load on Side Face
Proposed Raycap L	OC6-48-60-18-8C			
Height := 22.25in	Width/Diameter width := 11in	<u>Depth/Diameter</u> depth := 11in	Weight := 32.8lbf	Shape ○ Flat ● Round
$DL_9 := weight$		$\frac{DL_9}{2} = 16.4$	4 lbf	Dead Load
$F_{F9} := F_F$		$\frac{F_{F9}}{2} = 15.3$	6 lbf	Wind Load on Front Face
F _{S9} := F _S		$\frac{F_{S9}}{2} = 15.3$	36 lbf	Wind Load on Side Face
$DL_{9.ice} := DL_{ice}$		$\frac{DL_{9,ice}}{2} = 2$	24.33 lbf	Dead Load
$F_{F9.ice} := F_{F.ice}$		2	3.82 lbf	Wind Load on Front Face
$F_{S9.ice} := F_{S.ice}$		$\frac{F_{S9.ice}}{2} = 3$	3.82 lbf	Wind Load on Side Face

Fullerton Engineering Consultants, LLC.

Date: 1/15/2021

Antenna Mounting Pipe

 $H_{pipe} := 72in$

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 $DL_{p1} := LW_{pipe} \cdot H_{pipe}$

 $F_{p1} := F_{p}$

 $F_{p1.ice} := F_{p.ice}$

 $DL_{p1.ice} := DL_{ice}$

 $DL_{p1.ice_linear} := \frac{DL_{ice}}{H_{pipe}}$

 $F_{p1_linear} := F_{p_linear}$

 $\mathsf{F}_{\mathsf{p1_linear.ice}} \coloneqq \mathsf{F}_{\mathsf{p_linear.ice}}$

Pipe := 2.0

 $DL_{p1} = 21.96 \, lbf$

 $F_{p1} = 51.62 \, lbf$

 $F_{p1.ice} = 17.31 \, lbf$

 $DL_{p1.ice} = 79.04 lbf$

DL_{p1.ice_linear} = 13.17·plf

F_{p1_linear} = 9⋅plf

F_{p1_linear.ice} = 3·plf

Dead Load (total weight of pipe)

Wind Load

Wind Load with ice

Dead Load of ice

Dead Load of ice per linear foot

Linear Wind Load on Pipe

Linear Wind Load with ice on Pipe

DL_{ice}

DL_{M1_icelinear} :=

 $F_{F.ice.M1} := F_{F.ice}$

Fullerton Engineering Consultants, LLC.

Date: 1/15/2021

Unistrut (P1000):			
<u>Height</u>	Width/Diameter	Depth/Diameter	<u>Shape</u>
height := 36in	width := 1.6in	depth := 1.6in	● Flat
			○ Round
▶			
$F_{F.M1} := F_F$		$F_{F.M1} = 27.71 lbf$	Wind Load on Front Face
$F_{S.M1} := F_S$		$F_{S.M1} = 27.71 lbf$	Wind Load on Side Face
$F_{M1_Flinear} := \frac{F_F}{height}$		$F_{M1_Flinear} = 9.24 \cdot plf$	Wind Load per Linear Foot on Front Face
$F_{M1_Slinear} := \frac{F_S}{\text{height}}$		$F_{M1_Slinear} = 9.24 \cdot plf$	Wind Load per Linear Foot on Side Face
$DL_{M1_ice} := DL_{ice}$		$DL_{M1_ice} = 38.53 lbf$	Dead Load of Ice

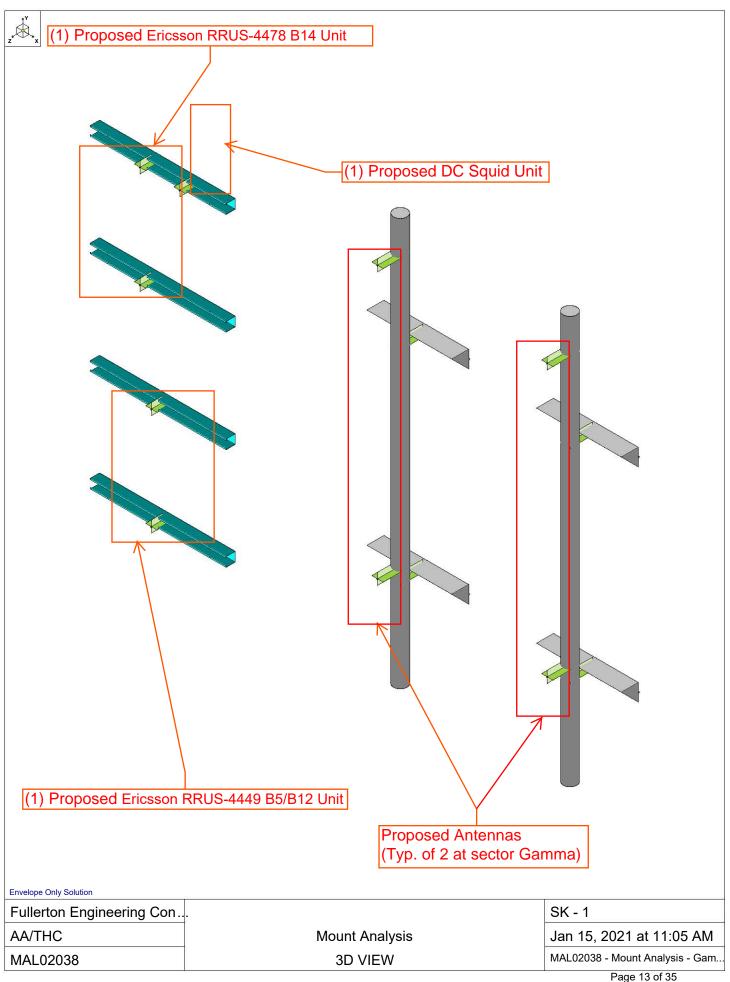
$F_{S.ice.M1} := F_{S.ice}$	$F_{S.ice.M1} = 12.66 lbf$	Wind Load with Ice on Side Face
$F_{M1_F.icelinear} \coloneqq \frac{F_{F.ice}}{height}$	$F_{M1_F.icelinear} = 4.22 \cdot plf$	Wind Load with Ice per Linear Foot Front Face
$F_{M1_S.icelinear} := \frac{F_{S.ice}}{height}$	$F_{M1_S.icelinear} = 4.22 \cdot plf$	Wind Load with Ice per Linear Foot Side Face

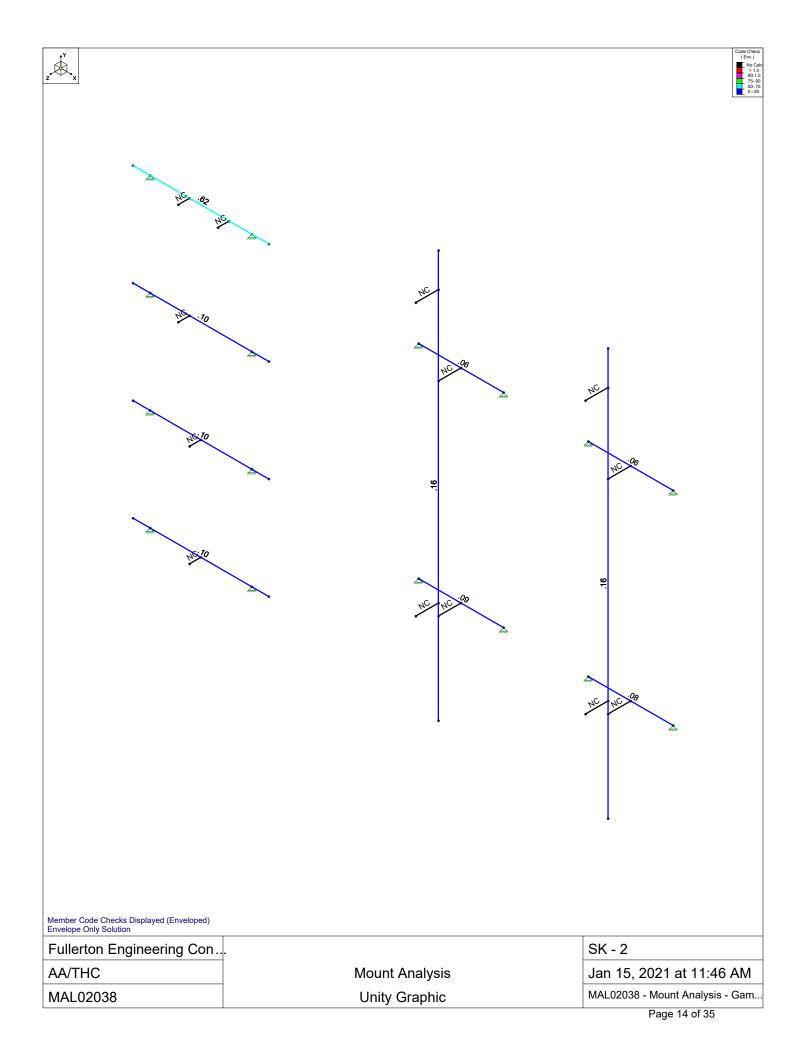
DL_{M1_icelinear} = 12.84·plf

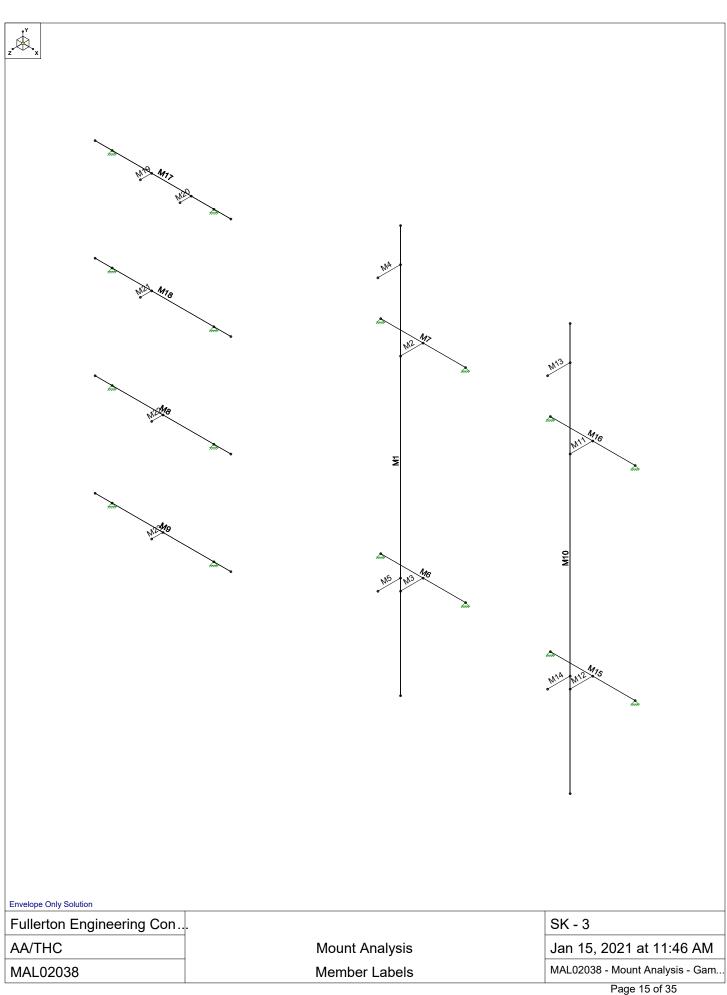
 $F_{F.ice.M1} = 12.66 \, lbf$

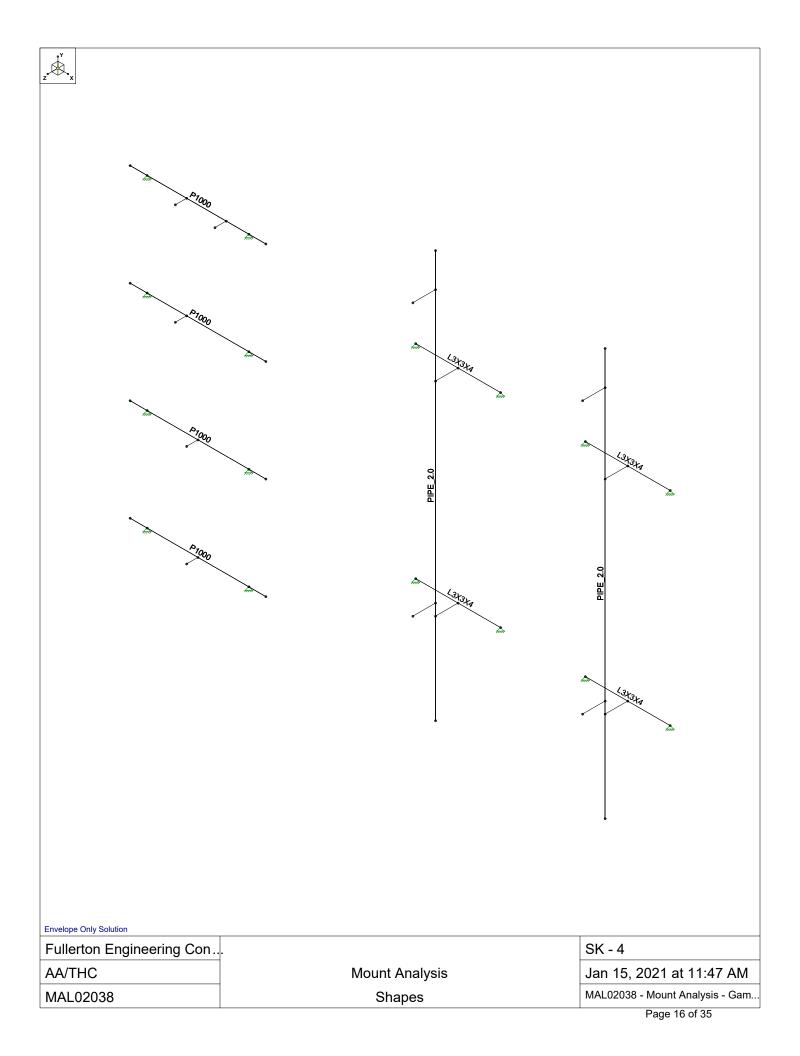
Dead Load of Ice per Linear Foot

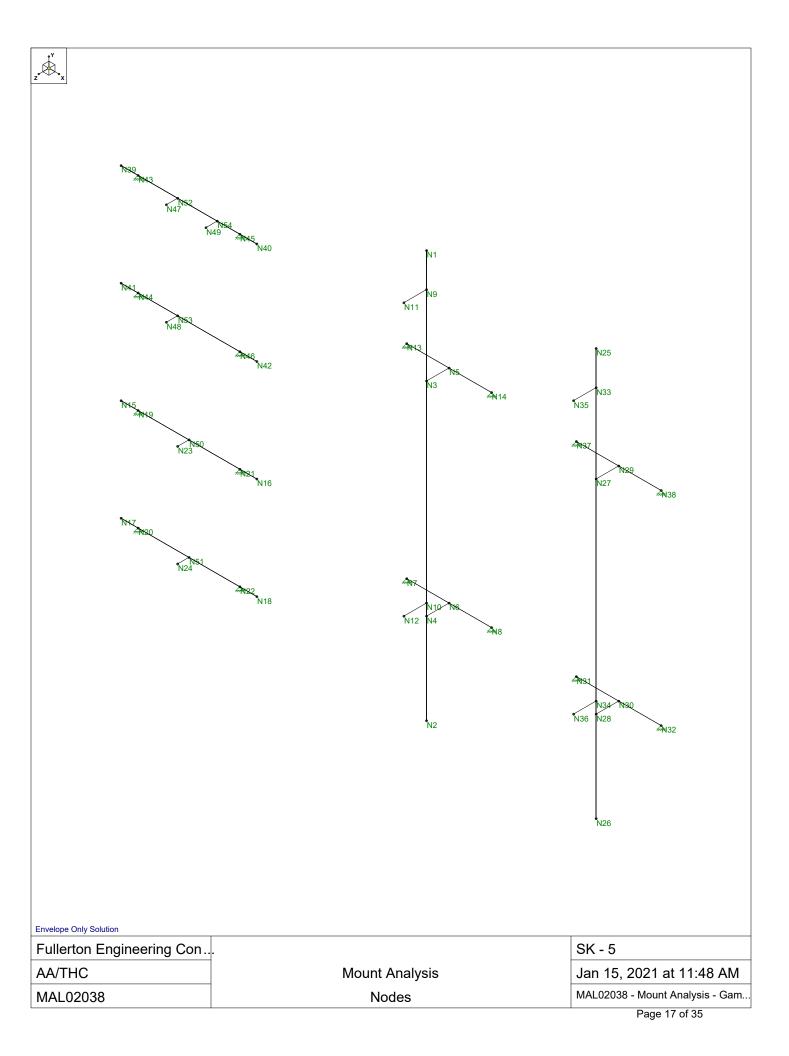
Wind Load with Ice on Front Face

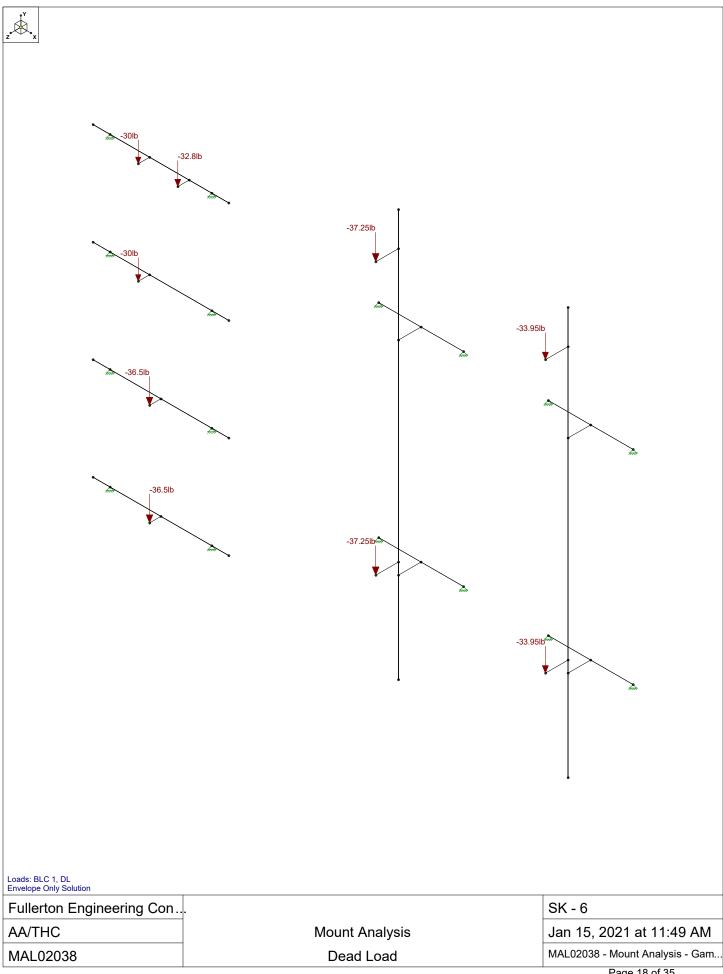




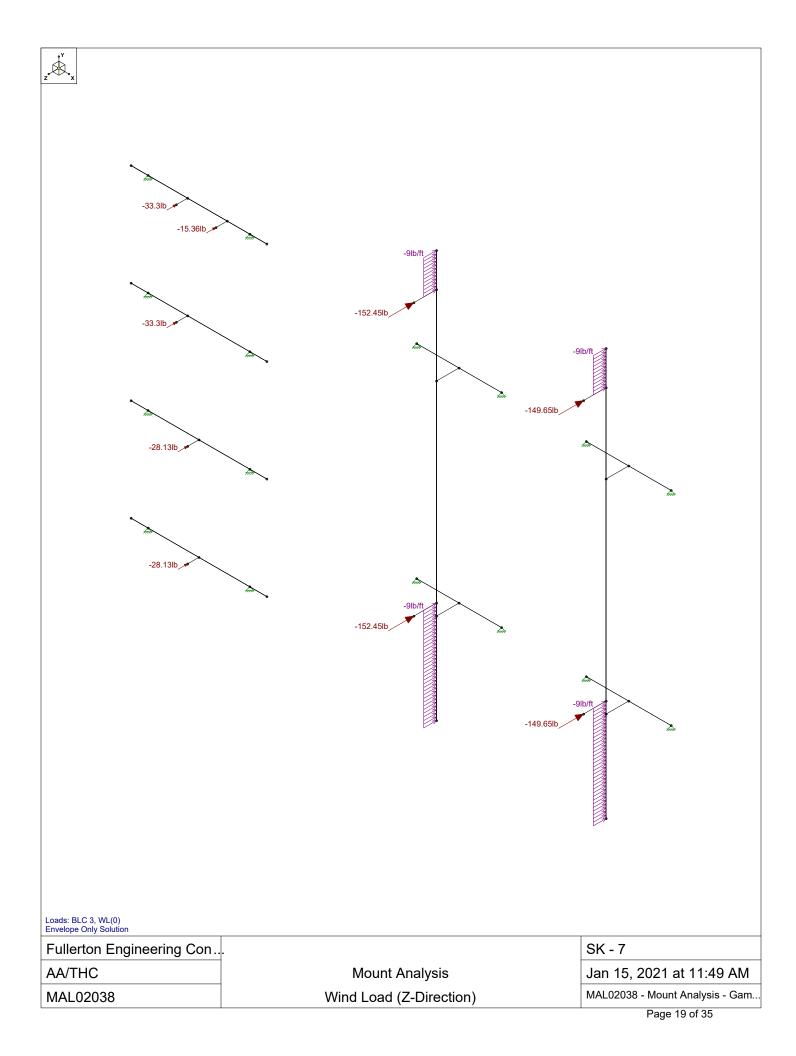


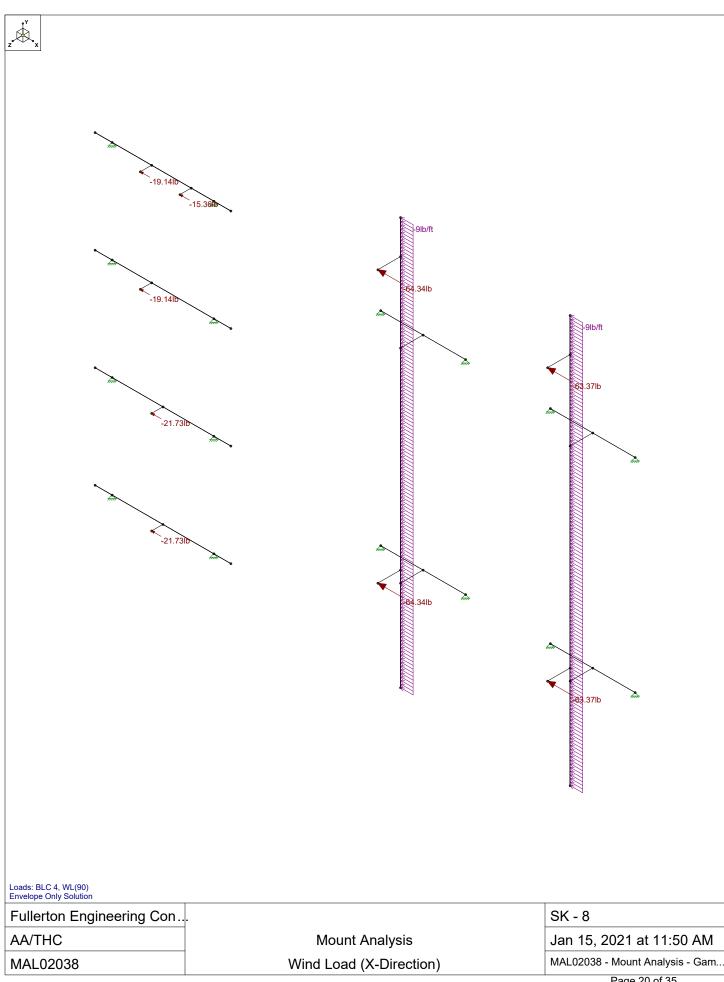




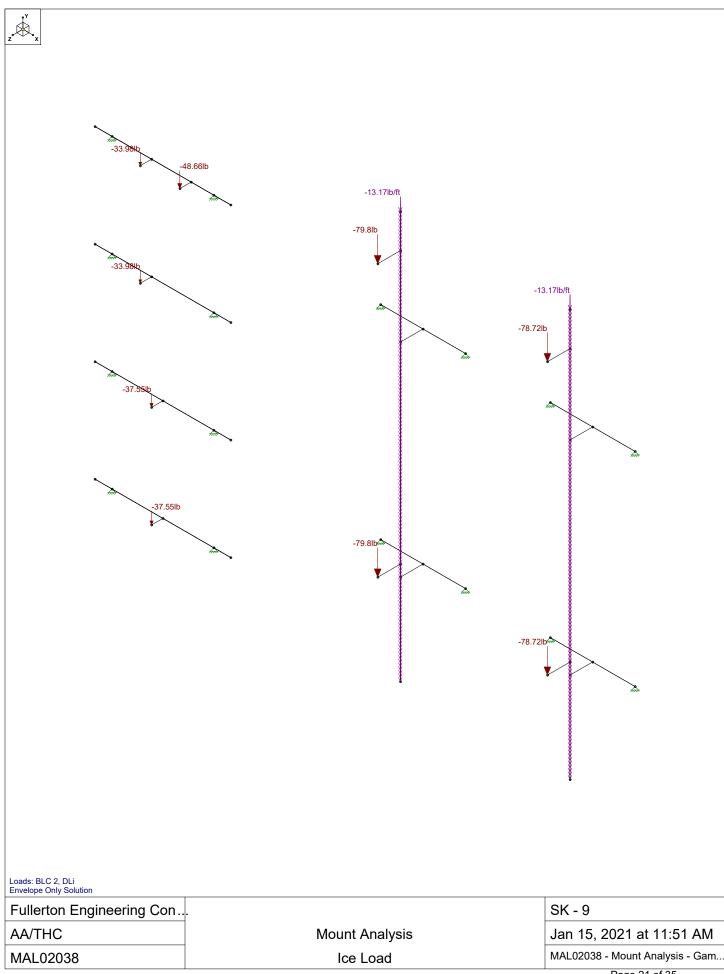


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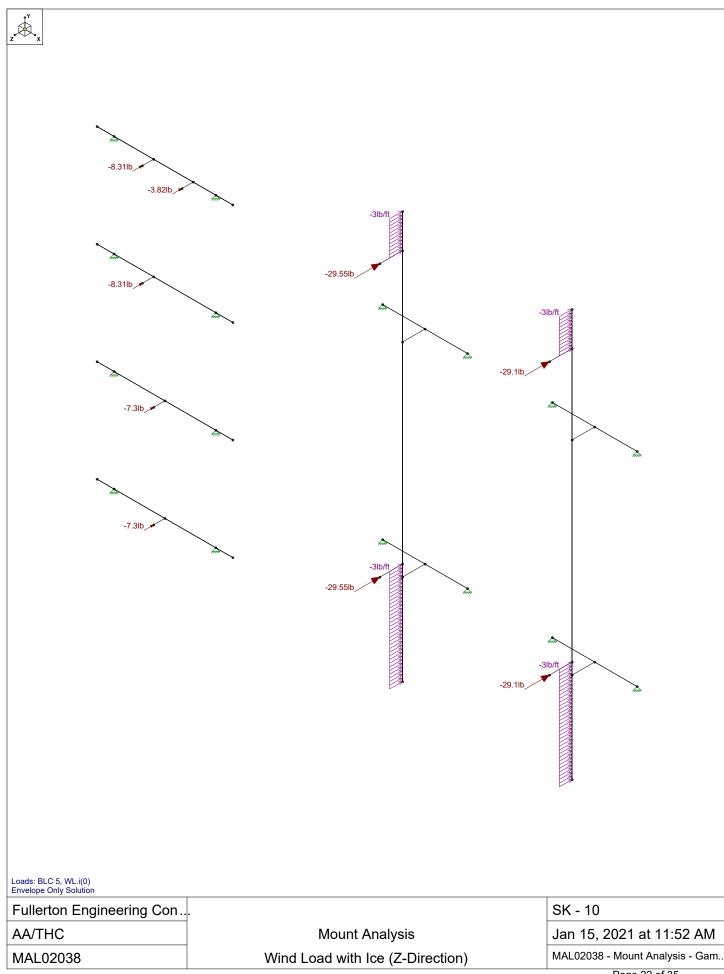




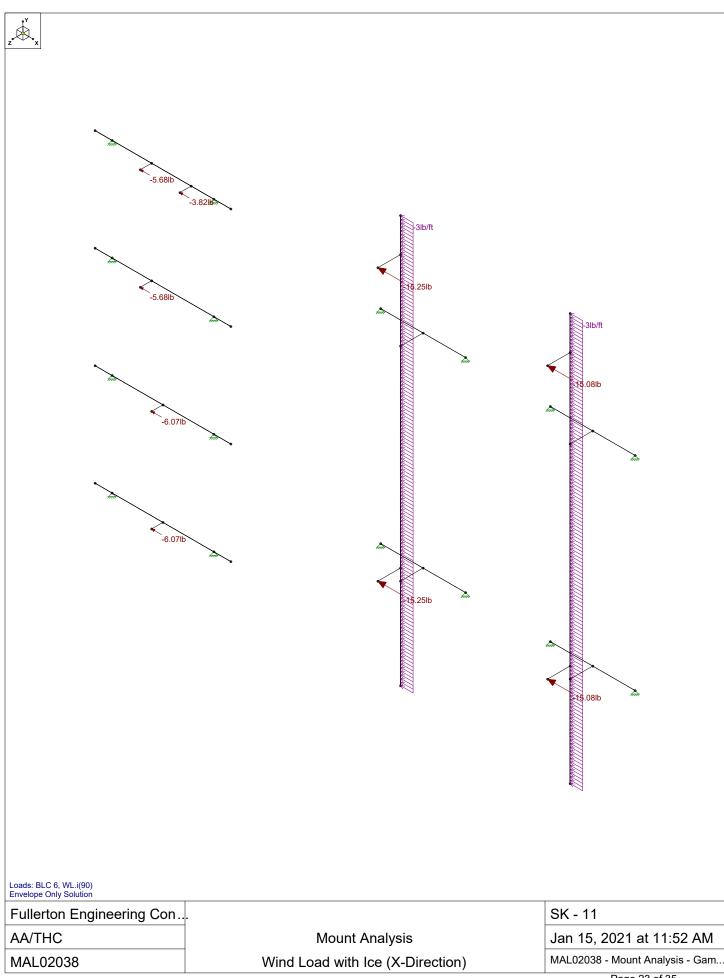
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Company Designer Job Number Model Name

: Fullerton Engineering Consultants, LLC: AA/THC: MAL02038

: Mount Analysis

Jan 15, 2021 11:57 ÁM Checked By: BTK

(Global) Model Settings

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation?	Yes
Increase Nailing Capacity for Wind?	Yes
Include Warping?	Yes
Trans Load Btwn Intersecting Wood Wall?	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automatically Iterate Stiffness for Walls?	Yes
Max Iterations for Wall Stiffness	3
Gravity Acceleration (in/sec^2)	386.4
Wall Mesh Size (in)	12
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Υ
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver

Hot Rolled Steel Code	AISC 14th(360-10): LRFD
Adjust Stiffness?	Yes(Iterative)
RISAConnection Code	AISC 14th(360-10): LRFD
Cold Formed Steel Code	AISI S100-12: LRFD
Wood Code	None
Wood Temperature	< 100F
Concrete Code	None
Masonry Code	None
Aluminum Code	None - Building
Stainless Steel Code	AISC 14th(360-10): ASD
Adjust Stiffness?	Yes(Iterative)

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	Exact Integration
Parme Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Use Cracked Sections Slab?	Yes
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR_SET_ASTMA615
Min % Steel for Column	1
Max % Steel for Column	8



: Fullerton Engineering Consultants, LLC : AA/THC

: Mount Analysis

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(Global) Model Settings, Continued

Seismic Code	ASCE 7-10
Seismic Base Elevation (in)	Not Entered
Add Base Weight?	Yes
Ct X	.02
Ct Z	.02
T X (sec)	Not Entered
T Z (sec)	Not Entered
RX	3
RZ	3
Ct Exp. X	.75
Ct Exp. Z	.75
SD1	1
SDS	1
S1	1
TL (sec)	5
Risk Cat	I or II
Drift Cat	Other
Om Z	1
Om X	1
Cd Z	4
Cd X	4
Rho Z	1
Rho X	1

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torq	Kyy	Kzz	Cb	Function
1	M1	PIPE 2.0	72			Lbyy		•				Lateral
2	M6	L3X3X4	15			Lbyy						Lateral
3	M7	L3X3X4	15			Lbyy						Lateral
4	M10	PIPE 2.0	72			Lbyy						Lateral
5	M15	L3X3X4	15			Lbyy						Lateral
6	M16	L3X3X4	15			Lbyy						Lateral

Material Takeoff

	Material	Size	Pieces	Length[in]	Weight[K]
1	General				5
2	RIGID		13	42	0
3	Total General		13	42	0
4					
5	Hot Rolled Steel				
6	A36 Gr.36	L3X3X4	4	60	.024
7	ASTM A53 Gr. 35	PIPE 2.0	2	144	.042
8	Total HR Steel		6	204	.066
9					
10	Cold Formed Steel				
11	A570 Gr.33	P1000	4	96	.012
12	Total CF Steel		4	96	.012

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me	Surface(P
1	DL	None		-1	·	9			,	,
2	DLi	None				9		2		
3	WL(0)	None				9		4		



Company : Fullerton Er Designer : AA/THC Job Number : MAL02038 Model Name

: Fullerton Engineering Consultants, LLC : AA/THC

: Mount Analysis

Jan 15, 2021 11:57 AM Checked By: BTK

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me	Surface(P
4	WL(90)	None				9		2		
5	WL.i(0)	None				9		4		
6	WL.i(90)	None				9		2		
7	T ,	None								
8	Live Load	None								

Load Combinations

Description Solve PD S B Fa B																							
Description			S					<u>B</u>	<u>Fa</u>	В	<u>Fa</u>	В	<u>Fa</u>	В	Fa	B	Fa	В	Fa	B	Fa	<u>В</u>	<u>Fa</u>
1 1.2*DL + 1.6 * WL(0)	Yes						1.6																
2 1.2*DL + 1.6* WL(30)	Yes						1.39		.8														
3 1.2*DL + 1.6* WL(60)	Yes						.8		1.39														
4 1.2*DL + 1.6*WL(90)	Yes						1.6																
5 1.2*DL + 1.6*WL(120)							8																
6 1.2*DL +1.6*WL(150)	Yes						-1		.8														
7 1.2*DL + 1.6 * WL(180)	Yes	Υ					-1.6																
8 1.2*DL + 1.6* WL(210)	Yes	Υ		1	1.2	3	-1	4	8														
9 1.2*DL + 1.6* WL(240)	Yes	Υ		1	1.2	3	8	4	-1														
10 1.2*DL + 1.6*WL(270)	Yes	Υ		1	1.2	4	-1.6																
11 1.2*DL + 1.6*WL(300)	Yes	Υ		1	1.2	3	8.	4	-1														
12 1.2*DL +1.6*WL(330)	Yes			1			1.39		8														
13 1.2*DL+1.0*DLi+1.0*WL.i(Ó.				1	1.2		1	5	1	7	1												
14 1.2*DL+1.0*DLi+1.0*WL.i(3.				1	1.2	2	1	5	.866	6	.5	7	1										
15 1.2*DL+1.0*DLi+1.0*WL.i(6.				1	1.2	2	1	5	.5	6	.866	7	1										
16 1.2*DL+1.0*DLi+1.0*WL.i(9.	Yes	Υ		1	1.2	2	1	6	1	7	1												
17 1.2*DL+1.0*DLi+1.0*WL.i(1.	Yes	Y		1	1.2	2	1	5	5	6	.866	7	1										
18 1.2*DL+1.0*DLi+1.0*WL.i(1.	. Yes	Υ			1.2		1	5	8	6	.5	7	1										
19 1.2*DL+1.0*DLi+1.0*WL.i(1.	Yes	Υ		1	1.2	2	1	5	-1	7	1												
20 1.2*DL+1.0*DLi+1.0*WL.i(2.	Yes	Υ			1.2		1	5	8	6	5	7	1										
21 1.2*DL+1.0*DLi+1.0*WL.i(2.	Yes	Υ		1	1.2	2	1	5	5	6	8	7	1										
22 1.2*DL+1.0*DLi+1.0*WL.i(2.	Yes	Υ			1.2		1	6	-1	7	1												
23 1.2*DL+1.0*DLi+1.0*WL.i(3.	Yes	Υ		1	1.2		1	5	.5	6	8	7	1										
24 1.2*DL+1.0*DLi+1.0*WL.i(3.	Yes	Υ		1	1.2		1	5	.866	6	5	7	1										
25 0.9*DL+1.6*WL(0)	Yes			1	.9		1.6																
26 0.9*DL+1.6*WL(30)	Yes	Υ		1	.9	3	1.39	4	.8														
27 0.9*DL+1.6*WL(60)	Yes	Υ		1	.9	3	.8	4	1.39														
28 0.9*DL+1.6*WL(90)	Yes	Υ		1	.9	4	1.6																
29 0.9*DL+1.6*WL(120)	Yes	Υ		1	.9	3	8	4	1.39														
30 0.9*DL+1.6*WL(150)	Yes	Υ		1	.9	3	-1	4	.8														
31 0.9*DL+1.6*WL(180)	Yes	Υ		1	.9	3	-1.6																
32 0.9*DL+1.6*WL(210)	Yes			1	.9		-1		8														
33 0.9*DL+1.6*WL(240)	Yes	Υ		1	.9		8		-1														
34 0.9*DL+1.6*WL(270)	Yes			1	.9		-1.6																
35 0.9*DL+1.6*WL(300)	Yes			1	.9	3			-1														
36 0.9*DL+1.6*WL(330)	Yes			1	.9		1.39		8														
37 1.2*DL+1.6*LL	Yes			1	1.2	8	1.6																

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

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	_oc	phi*Pn.	.phi*Pn	phi*M	phi*M	Eqn
1	M1	PIPE_2.0	.161	19.5	7	.035	19.5	11 20866	32130	1.872	1.872	1 H1-1b
2	M6	L3X3X4	.087	7.5	6	.014	0	z 7 45068	46656	1.688	3.756	H2-1
3	M7	L3X3X4	.061	7.5	6	.015	15	z 12 45068	46656	1.688	3.756	H2-1
4	M10	PIPE_2.0	.158	19.5	7	.035	19.5	11 20866	32130	1.872	1.872	1 H1-1b
5	M15	L3X3X4	.085	7.5	6	.013	0	z 7 45068	46656	1.688	3.756	H2-1
6	M16	L3X3X4	.059	7.5	6	.015	15	z 12 45068	46656	1.688	3.756	H2-1

Company Designer Job Number Model Name : Fullerton Engineering Consultants, LLC : AA/THC

: AA/THC : MAL02038 : Mount Analysis Jan 15, 2021 11:57 AM Checked By: BTK

Envelope AISI S100-12: LRFD Cold Formed Steel Code Checks

	Member	Shape	Code Check	Loc[in]	L	Shear Check	Lo	c[Dir	LCphi*Pn	.phi*Tn	phi*M	phi*M	Cb	Cmyy	Cmzz	<u>Eqn</u>
1	M8	P1000	.099	12	24	.081		3	У	24 7867	13275.9	.442	.515	1	.6	.85	C3.3
2	M9	P1000	.099	12	24	.081		3	٧	24 7867	13275.9	.442	.515	1	.6	.85	C3.3
3	M17	P1000	.615	17	13	.612	1	7	۸	13 7867	13275.9	.442	.515	1	.6	.85	C3.3
4	M18	P1000	.097	10	16	.085		3	٧	16 7867	13275.9	.442	.515	1	.6	.85	C3.3
					ı	1	_		•								

Max. Stress Ratio<1
Members are adequate

Site Name: Sonesta Site Number: MAL02038 Prepared By: AA/THC Checked By: RKM

Fullerton Engineering Consultants, LLC

1100 E. Woodfield Road, Suite 500 Schaumburg, IL 60173 (847) 908-8400

HILTI HY-70

2016 Hilti

Anchor Calculations (Gamma Sector)

New antennas will be installed on existing wall mounts (Site Pro 1 P/N # WMA300) attached to existing penthouse wall with (2) 1/2" φ Hilti HIT HY-70 Adhesive Anchors w/ 2" minimum embedment, per support. New RRH units will be installed on existing/proposed unistrut wall mounts attached to existing penthouse wall with (2) 1/2" φ Hilti HIT HY-70 Adhesive Anchors w/ 2" minimum embedment, per support.

Maximum Reactions from Risa Mount Analysis Node:

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N7	max	69,691	28	198.874	7	110.844	2	Ó	37	Ó	37	Ó	37
2		min	-69.691	34	-139.334	25	-91.14	32	0	1	0	1	0	1
3	N8	max	69,691	28	198.874	7	110.844	12	0	37	0	37	0	37
4		min	-69.691	34	-139.334	25	-91.14	30	0	1	0	1	0	1
5	N13	max	76.454	4	221.649	2	182.834	26	0	37	0	37	0	37
6		min	-76.454	10	-168.317	32	-202,527	8	0	1	0	1	0	1
7	N14	max	76.454	4	221.649	12	182.834	36	0	37	0	37	0	37
8		min	-76.454	10	-168.317	30	-202.527	6	0	1	0	1	0	1
17	N31	max	68.95	28	193.947	7	108.5	2	0	37	0	37	0	37
18		min	-68.95	34	-138.148	25	-90.332	32	0	1	0	1	0	1
19	N32	max	68.95	28	193.947	7	108.5	12	0	37	0	37	0	37
20		min	-68.95	34	-138.148	25	-90.332	30	0	1	0	1	0	1
21	N37	max	75.642	4	216.738	2	180.238	26	0	37	0	37	0	37
22		min	-75.642	10	-166.593	32	-198.394	8	0	1	0	1	0	1
23	N38	max	75.642	4	216.738	12	180.238	36	0	37	0	37	0	37
24		min	-75.642	10	-166.593	30	-198.394	6	0	1	0	1	0	1

X := 76.454 lbf

Y := 221.649 lbf

Z := 202.527 lbf

$$P_t := \frac{Z}{1.35}$$

$$P_V := \frac{\sqrt{\chi^2 + \gamma^2}}{1.35}$$

 $d_b := 0.5 ii$

Maximum Reaction - X direction

Maximum Reaction - Y direction

Maximum Reaction - Z direction

 $P_t = 150.02 \, lbf$

Design Tensile Force

Date: 01/15/2021

 $P_V = 173.68 \, lbf$

Design Shear Force

Diameter of anchor

Site Name: Sonesta Site Number: MAL02038 Prepared By: AA/THC Checked By: RKM

Fullerton Engineering Consultants, LLC 1100 E. Woodfield Road, Suite 500

1100 E. Woodfield Road, Suite 500 Schaumburg, IL 60173 (847) 908-8400

1	$\pi \cdot d_b^2$
$A_b :=$	4

 $A_b = 0.2 \cdot in^2$

Area of anchor

$$P_{t_anchor} := P_t$$

$$P_{t_anchor} = 150.02 \, lbf$$

Tension/Compression at each anchor

Date: 01/15/2021

$$P_{V_anchor} := P_V$$

$$P_{v_anchor} = 173.68 \, lbf$$

Shear at each anchor

$$Anchor_T := min(3755 lbf, 390 lbf)$$

$$Anchor_T = 390 \, lbf$$

 $Anchor_{V} := min(1935 lbf, 670 lbf)$

$$Anchor_{V} = 670 \, lbf$$

$$\frac{P_{t_anchor}}{Anchor_T} + \frac{P_{v_anchor}}{Anchor_V} = 0.64$$

StressCheck = "Anchors are adequate."

		Sectio	n 17A - FINAL TOWER CO	ONFIGURATION -	SECTOR A (O	R OMNI)		
ANTENNA POSITION is LEFT to RIGHT from BACK OF ANTENNA (unless otherwise specified)	ANTENNA POSITION 1	ANTENNA POSITION 2	ANTENNA POSITION 3	ANTENN	IA POSITION 4	ANTENNA POSITION 5	ANTENNA POSITION 6	ANTENNA POSITION 7
ANTENNA MAKE - MODEL	AM-X-CD-14-65-00T-RET		742-264	742-264				
ANTENNA VENDOR	KMW		Kathrein	Kathrein				
ANTENNA SIZE (H x W x D)	48X11.8X5.9		51.8X10.3X5.5	51.8X10.3X5.5				
ANTENNA WEIGHT	36.4		36.4	36.4				
AZIMUTH			30	30				
MAGNETIC DECLINATION								
RADIATION CENTER (feet)			135	135				
ANTENNA TIP HEIGHT			137	137				
MECHANICAL DOWNTILT	0		0	0				
FEEDER AMOUNT			2	2				
VERTICAL SEPARATION from ANTENNA ABOVE (TIP to TIP)								
VERTICAL SEPARATION from ANTENNA BELOW (TIP to TIP)								
HORIZONTAL SEPARATION from CLOSEST ANTENNA to LEFT (CENTERLINE to CENTERLINE)							1	
HORIZONTAL SEPARATION from CLOSEST								
ANTENNA to RIGHT (CENTERLINE to CENTERLINE) HORIZONTAL SEPARATION from ANOTHER								
ANTENNA (which antenna # / # of inches)								
Antenna RET Motor (QTY/MODEL)	Internal		2 Kathrein 860-1002	5 2	Kathrein 860-10025			
SURGE ARRESTOR (QTY/MODEL)	1 DC/Fiber Squid							
DIPLEXER (QTY/MODEL)			2 Kathrein 782-1025	0 4	Kathrein 782-10250			
DUPLEXER (QTY/MODEL)								
Antenna RET CONTROL UNIT (QTY/MODEL)	LTE RRH			1	Kathrein / 860-10006			
DC BLOCK (QTY/MODEL)								
TMA/LNA (QTY/MODEL)			Powerwave LGP 2 (DB - 850 Bypass)					
CURRENT INJECTORS FOR TMA (QTY/MODEL)			2 Polyphaser 100086					
PDU FOR TMAS (QTY/MODEL)			1 LGP 12104 (1900 a Bypass TMA)	AND 850				
FILTER (QTY/MODEL)								
SQUID (QTY/MODEL)								
FIBER TRUNK (QTY/MODEL)								
DC TRUNK (QTY/MODEL)								
REPEATER (QTY/MODEL)								
RRH - 700 band (QTY/MODEL)	1 RRUS-11 B12							
RRH - 850 band (QTY/MODEL)			+					
RRH - 1900 band (QTY/MODEL)								
RRH - AWS band (QTY/MODEL)								
RRH - WCS band (QTY/MODEL) Additional RRH #1 - any band (QTY/MODEL)			+ +				+ + -	
Additional RRH #2 - any band (QTY/MODEL) Additional RRH #2 - any band (QTY/MODEL)							+	
Additional Component 1 (QTY/MODEL)				2	Kathrein / 782-10253 (1) &			
Additional Component 2 (QTY/MODEL)					782-10254 (1)			
Additional Component 3 (QTY/MODEL)								
Local Market Note 1	// Antennae & Radio positions according to PD- Replace	Hexport antenna with octo port Antenna- Replace LTE	RRH with 4449- Add LTE B14 RRH 4478- Add DC S	quid- Replace BB with 6630- Basel	pand configuration as per PD / S	Section-7		1
Local Market Note 2	LTE only on Gamma	<u> </u>			·			
Local Market Note 3								
	AAAAA / UDJU / XXXXX							

PORT SPECIFIC FIELDS	PORT NUMBER	USEID (CSSng)	USEID (Atoli)	ATOLL TXID	ATOLL CELL ID	TX/RX ·	TECHNOLOGY/FREQ UENCY	ANTENNA ATOLL	ANTENNA GAIN	ELECTRICAL AZIMUTH	ELECTRICAL TILT	RRH LOCATION (Top/Bottom/ Integrated/No ne)		FEEDER LENGTH (feet)	RXAIT KIT MODULE?	TRIPLEXER or LLC (QTY)	TRIPLEXER or LLC (MODEL)	SCPA/MCPA MODULE?	HATCHPLAT E POWER (Watts)	ERP (Watts)	Antenna RET Name	CABLE NUMBER	CABLE ID (CSSNG)
	PORT 1					Shutd own	LTE	AM-X-CD-14-65-00T- RET_725MHz_05DT	14.1	17	5	Тор	FIBER	0						1475.7065		1	
ANTENNA POSITION 1	PORT 3					Shutd own		AM-X-CD-14-65-00T- RET_1930MHz_02DT	16.3	17	2	Тор	FIBER	0						4842.058		2	
ANTENNA POSITION 3	PORT 1	54479.A.850.3G.1	54479.A.850.3G.1	MAV20381	MAV20381			742-264 @850MHz_14DT	14	30	14	None	Commscope 1-5/8	110						Page 30	0 of 35	5	

ANTENNA POSITION 4 PORT 5		DECO M GSM 850				
---------------------------	--	-------------------	--	--	--	--

			Se	ection 17B - FI	NAL TOWER	CONFIGURAT	ION - SECTOR	В					
ANTENNA POSITION is LEFT to RIGHT from BACK OF ANTENNA (unless otherwise specified)	ANTENNA POSITION 1	ANTENNA PO			POSITION 3		POSITION 4		POSITION 5	ANTENNA	POSITION 6	ANTENNA	POSITION 7
ANTENNA MAKE - MODEL	742-264			AM-X-CD-14-65-00T-RET		742-264							
ANTENNA VENDOR	Kathrein			KMW		Kathrein							
ANTENNA SIZE (H x W x D)	51.8X10.3X5.5			48X11.8X5.9		51.8X10.3X5.5							
ANTENNA WEIGHT	36.4			36.4		36.4							
AZIMUTH	150			155		150							
MAGNETIC DECLINATION													
RADIATION CENTER (feet)	131			131		131							
ANTENNA TIP HEIGHT	133			133		133							
MECHANICAL DOWNTILT	0			1		0							
FEEDER AMOUNT	2					2							
VERTICAL SEPARATION from ANTENNA ABOVE (TIP to TIP)													
VERTICAL SEPARATION from ANTENNA BELOW (TIP to TIP)													
HORIZONTAL SEPARATION from CLOSEST ANTENNA to LEFT (CENTERLINE to CENTERLINE)												1	ŀ
HORIZONTAL SEPARATION from CLOSEST ANTENNA to RIGHT (CENTERLINE to CENTERLINE)													
HORIZONTAL SEPARATION from ANOTHER ANTENNA (which antenna # / # of inches)	PARATION from ANOTHER ich antenna # / # of inches)												
Antenna RET Motor (QTY/MODEL)					Internal	2	Kathrein 860-10025						
SURGE ARRESTOR (QTY/MODEL)				1	DC/Fiber Squid	_							
DIPLEXER (QTY/MODEL)	2 Kathrein 782-10250					4	Kathrein 782-10250						
DUPLEXER (QTY/MODEL)													
Antenna RET CONTROL UNIT (QTY/MODEL)					LTE RRH								
DC BLOCK (QTY/MODEL)													
TMA/LNA (QTY/MODEL)	Powerwave LGP 21401 (DB - 850 Bypass)												
CURRENT INJECTORS FOR TMA (QTY/MODEL)	Polyphaser 1000860												
PDU FOR TMAS (QTY/MODEL)													
FILTER (QTY/MODEL)													
SQUID (QTY/MODEL)													
FIBER TRUNK (QTY/MODEL)													
DC TRUNK (QTY/MODEL)													
REPEATER (QTY/MODEL)													
RRH - 700 band (QTY/MODEL)				1	RRUS-11 B12								
RRH - 850 band (QTY/MODEL)													
RRH - 1900 band (QTY/MODEL)				2	RRUS-11 B2								
RRH - AWS band (QTY/MODEL)													
RRH - WCS band (QTY/MODEL)													
Additional RRH #1 - any band (QTY/MODEL)												<u> </u>	
Additional RRH #2 - any band (QTY/MODEL)													
Additional Component 1 (QTY/MODEL)						2	Kathrein / 782-10253 (1) & 782-10254 (1)						
Additional Component 2 (QTY/MODEL)													
Additional Component 3 (QTY/MODEL)	<u> </u>				1								
Local Market Note 1	// Antennae & Radio positions according to PD- Repla	ce Hexport antenna with octo port	Antenna- Replace LTE RR	H with 4449- Add LTE B14 R	RH 4478- Add DC Squid- Re	eplace BB with 6630- Baseba	nd configuration as per PD / Se	ection-7					
Local Market Note 2	LTE only on Gamma												
Local Market Note 3	xxxxx / 6630 / xxxxx												
													1

PORT SPECIFIC FIELDS	PORT NUMBER	USEID (CSSng)	USEID (Atoli)	ATOLL TXID	ATOLL CELL ID	TX/RX ?	TECHNOLOGY/FREQ UENCY	ANTENNA ATOLL	ANTENNA GAIN	ELECTRICAL AZIMUTH		RRH LOCATION (Top/Bottom/ Integrated/No ne)	FEEDERS	FEEDER LENGTH (feet)	RXAIT KIT MODULE?	TRIPLEXER or LLC (QTY)	TRIPLEXER or LLC (MODEL)	SCPA/MCPA MODULE?	HATCHPLAT E POWER (Watts)	ERP (Watts)	Antenna RET Name	CABLE NUMBER	CABLE ID (CSSNG)
ANTENNA POSITION 1	PORT 1	54479.B.850.3G.1	54479.B.850.3G.1	MAV20382	MAV20382		UMTS 850	742-264 @850MHz_14DT	14	150	14	None	Commscope 1-5/8	110								9	
	PORT 1					Shutd	LTE	AM-X-CD-14-65-00T- RET_725MHz_10DT	14.1	155	10	Тор	FIBER	0						1475.7065		13	
ANTENNA POSITION 3	PORT 3					Shutd own		AM-X-CD-14-65-00T- RET_1930MHz_02DT	16.3	155	2	Тор	FIBER	0						₱age 32	2 of 35	14	
															L								

ANTENNA POSITION 4	PORT 5		DECO	GSM 850							
			M								

			Section 17C - F	FINAL TOWER	CONFIGURATI	ON - SECTOR	R C					
ANTENNA POSITION is LEFT to RIGHT from BACK OF ANTENNA (unless otherwise specified)	ANTENNA POSITION 1	ANTENNA POSITION 2	ANTEN	NA POSITION 3	ANTENNA	POSITION 4	ANTENNA	POSITION 5	ANTENNA	POSITION 6	ANTENNA	POSITION 7
ANTENNA MAKE - MODEL	DMP65R-BU4DA	OPA65R-BU4DA	SBNHH-1D65A		742-264							
ANTENNA VENDOR	ссі	CCI	Andrew		Kathrein							
ANTENNA SIZE (H x W x D)	48.0X20.7X7.7	48.2X21X7.8	55X11.9X7.1		51.8X10.3X5.5							
ANTENNA WEIGHT	67.9	52.5	33.5		36.4							
AZIMUTH	250	250	250		270							
MAGNETIC DECLINATION												
RADIATION CENTER (feet)		135	135		135							
ANTENNA TIP HEIGHT		137	137		137							
MECHANICAL DOWNTILT	0	0	0		0							
FEEDER AMOUNT			Fiber + 2 Coax		2							
VERTICAL SEPARATION from ANTENNA ABOVE (TIP to TIP)												
VERTICAL SEPARATION from ANTENNA BELOW (TIP to TIP)												
HORIZONTAL SEPARATION from CLOSEST												
ANTENNA to LEFT (CENTERLINE to CENTERLINE)												
HORIZONTAL SEPARATION from CLOSEST ANTENNA to RIGHT (CENTERLINE to CENTERLINE)								Г		Г		Т
HORIZONTAL SEPARATION from ANOTHER ANTENNA (which antenna # / # of inches)												
Antenna RET Motor (QTY/MODEL)	Internal	Internal		Internal	2	Kathrein 860-10025						
SURGE ARRESTOR (QTY/MODEL)	1 DC/Fiber Squid	1 DC Squid										
DIPLEXER (QTY/MODEL)					2	Kathrein 782-10250						
DUPLEXER (QTY/MODEL)												
Antenna RET CONTROL UNIT (QTY/MODEL)	LTE RRH	LTE RRH		LTE RRH								
DC BLOCK (QTY/MODEL)												
TMA/LNA (QTY/MODEL)					2	Powerwave LGP 21401 (DB - 850 Bypass)						
CURRENT INJECTORS FOR TMA (QTY/MODEL)					2	Polyphaser 1000860						
PDU FOR TMAS (QTY/MODEL)												
FILTER (QTY/MODEL)												
SQUID (QTY/MODEL)												
FIBER TRUNK (QTY/MODEL)												
DC TRUNK (QTY/MODEL)												
REPEATER (QTY/MODEL)												
RRH - 700 band (QTY/MODEL)		1 4478 B14	1	RRUS-E2 B29								
RRH - 850 band (QTY/MODEL)	RRH is shared with anothe band	r										
RRH - 1900 band (QTY/MODEL) RRH - AWS band (QTY/MODEL)	2 RRUS-11 B2	1 4426 B66		+								
RRH - AWS band (QTY/MODEL)		1 4420 866	1	RRUS-32 B30								
Additional RRH #1 - any band (QTY/MODEL)				INNUS*32 B30								
Additional RRH #2 - any band (QTY/MODEL)												
Additional Component 1 (QTY/MODEL)			2	Kathrein / 782-10253 (1) & 782-10254 (1)								
Additional Component 2 (QTY/MODEL)												
Additional Component 3 (QTY/MODEL)												
Local Market Note 1	// Antennae & Radio positions according to PD- Replace	Hexport antenna with octo port Antenna- F	teplace LTE RRH with 4449- Add LTE B1	4 RRH 4478- Add DC Squid- Re	place BB with 6630- Baseban	d configuration as per PD / S	Section-7					
Local Market Note 2	LTE only on Gamma											
Local Market Note 3	xxxxx / 6630 / xxxxx											

PORT SPECIFIC FIELDS	PORT NUMBER	USEID (CSSng)	USEID (Atoli)	ATOLL TXID	ATOLL CELL ID	TX/RX ?	TECHNOLOGY/FREQ UENCY	ANTENNA ATOLL	ANTENNA GAIN	ELECTRICAL AZIMUTH	ELECTRICAL TILT	RRH LOCATION (Top/Bottom/ Integrated/No ne)	TYPE	FEEDER LENGTH (feet)	TRIPLEXER or LLC (QTY)	SCPA/MCPA MODULE?	HATCHPLAT E POWER (Watts)	ERP (Watts)	Antenna RET Name	CABLE NUMBER	CABLE ID (CSSNG)
	PORT 1	54479.C.700.4G.1		MAL02038_7C_1	MAL02038_7C_1			DMP65R- BU4D_725MHz_09DT	10.8	250	9	Тор	FIBER	0				1475.7065		17	
	PORT 2	54479.C.850.4G.1		MAL02038_8C_1	MAL02038_8C_1			DMP65R- BU4D_850MHz_09DT	12.4	250	9	Тор	FIBER	0				1000		17	
ANTENNA POSITION 1	PORT 3	54479.C.1900.4G.1		MAL02038_9C_1	MAL02038_9C_1			DMP65R- BU4D_1930MHz_06D T	15.9	250	6	Тор	FIBER	0				Rage 3	4 of 35	18	
	PORT 5	54479.C.850.5G.1		MAMN002038_N0050	MAMN002038_N005C		5G 850	DMP65R-	12.4	250	9	Тор	FIBER	0				1000		17	

			_1	_1		BU4D_850MHz_09DT										
	PORT 1	54479.C.700.4G.5	MAL02038_7C_3_F	MAL02038_7C_3_F	LTE 700	OPA65R- BU4D_725MHz_09DT	12.1	250	9	Тор	FIBER	0			2951.413	19
ANTENNA POSITION 2	PORT 3	54479.C.AWS.4G.4	MAL02038_2C_2	MAL02038_2C_2		OPA65R- BU4D_2130MHz_08D T		250	8	Тор	FIBER	0			5070.2572	20
	PORT 1	54479.C.700.4G.4	MAL02038_7C_2_E	MAL02038_7C_2_E		SBNHH- 1D65A_722MHz_09D T	12.9	250	9	Тор	FIBER	o			1475.7065	21
ANTENNA POSITION 3	PORT 3	54479.C.WCS.4G.1	MAL02038_3C_1	MAL02038_3C_1	LTE WCS	SBNHH- 1D65A_2355MHz_08 DT	17.1	250	8	Тор	FIBER	0			1285.2866	22
ANTENNA POSITION 4	PORT 1	54479.C.850.3G.1	MAV20383	MAV20383		742-264 @850MHz_14DT	14	270	14	None	Commscope 1-5/8	110				23



Site Number: MAL02038

Address: 5 Cambridge Parkway FULLERTON

Cambridge, MA 02142 ENGINEERING · DESIGN





Site Number: MAL02038

Address: 5 Cambridge Parkway





View 1- Before [Looking Northwest from 400']

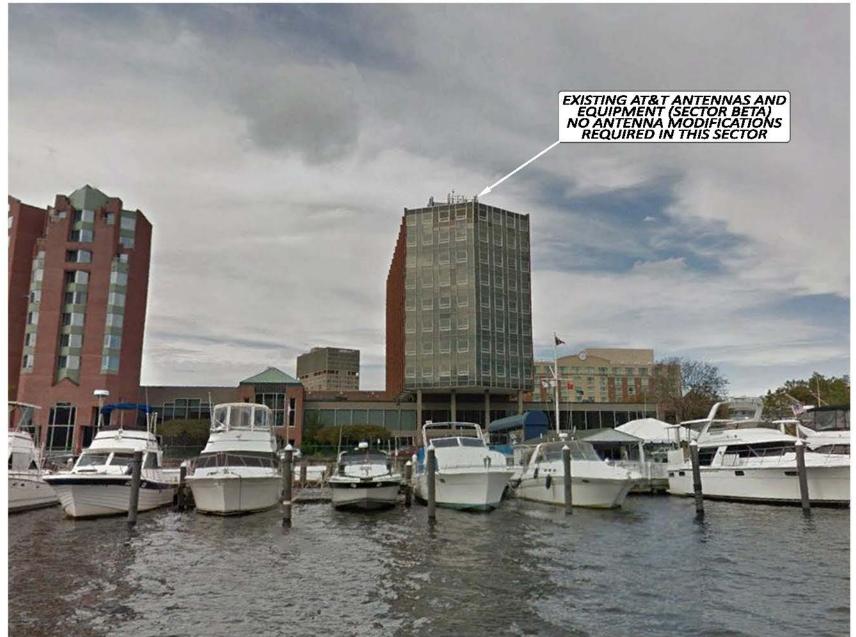


Site Number: MAL02038

Address: 5 Cambridge Parkway

Cambridge, MA 02142 ENGINEERING DESIGN





View 1- After [Looking Northwest from 400']

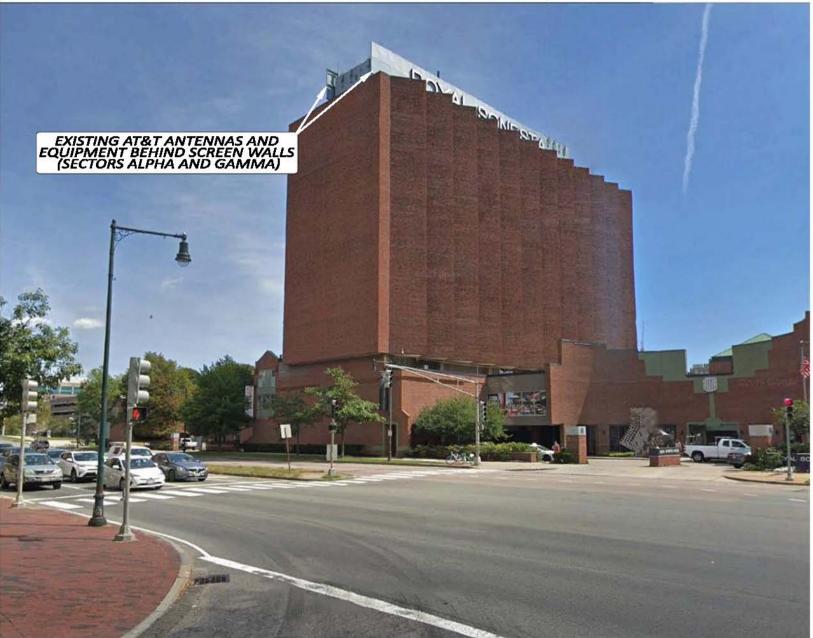


Site Number: MAL02038

Address: 5 Cambridge Parkway

FULLERTON

Cambridge, MA 02142 ENGINEERING · DESIGN



View 2- Before [Looking East from 200']

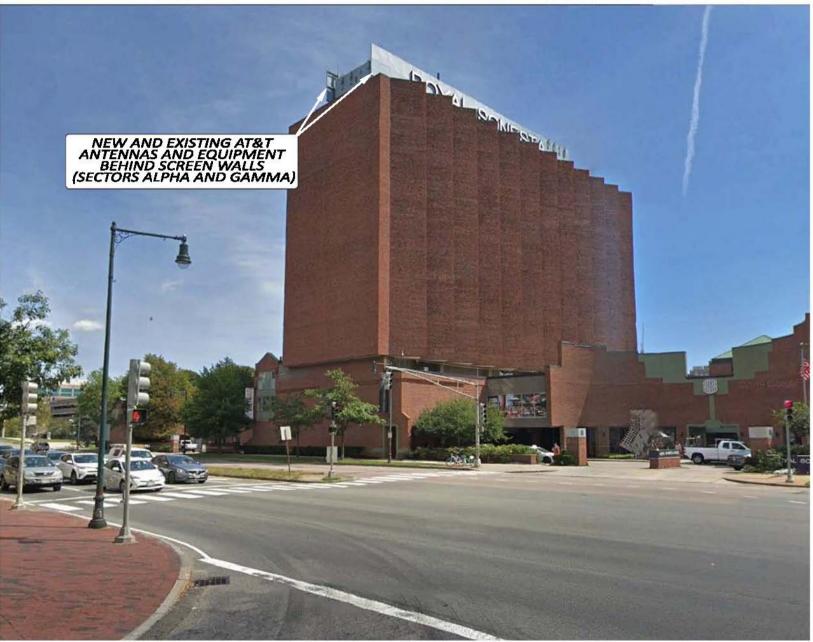


Site Number: MAL02038

Address: 5 Cambridge Parkway

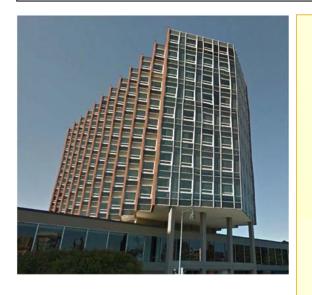
FULLERTON

Cambridge, MA 02142 ENGINEERING · DESIGN



View 2- After [Looking East from 200']





Smartlink on behalf of AT&T Mobility, LLC Site FA - 10007272 Site ID - MAL02038 USID - 54479 Site Name - SONESTA (MRCTB043921)

5 Cambridge Parkway Cambridge, MA 02142

Latitude: N42-22-00.98 Longitude: W71-04-28.98 Structure Type: Rooftop

Report generated date: July 1, 2020

Report by: Sophie Thein

Customer Contact: William Noel

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

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1 General Site Summary

1.1 Report Summary

AT&T Mobility, LLC	Summary
Max Cumulative Simulated RFE Level on the	154.0% General Public Limit 1" in front of AT&T
Rooftop	Mobility, LLC's Beta Sector Antenna 4
Max Cumulative Simulated RFE Level on the	154.0% General Public Limit 1" in front of AT&T
Rooftop Walking Surface	Mobility, LLC's Beta Sector Antenna 4
Max Cumulative Simulated RFE Level on the	<1% General Public Limit
Ground	
Compliant per FCC Rules and Regulations?	Will Be Compliant
Compliant per AT&T Mobility, LLC's Policy?	No

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

RFDS: NEW-ENGLAND_BOSTON_MAL02038_2020-LTE-Next-Carrier_LTE_DR701e_ 2101A0RWE2_10007272_54479_08-22-2019_Final-Approved_v5.00

CD's: 10007272_AE201_200422_MAL02038_REV1 5C-6C-5G NR

RF Powers Used: Max RRH Power

1.2 Fall Arrest Anchor Point Summary

Fall Arrest Anchor & Parapet Info	Parapet Available (Y/N)	Parapet Height (inches)	Fall Arrest Anchor Available (Y/N)
Roof Safety Info	N	N/A	N



1.3 Signage Summary

a. Pre-Site Visit AT&T Signage (Existing Signage)

AT&T Signage Locations	Information 1	Information 2	Notice	Notice 2	Caution	Caution 2	Warning	Warning 2	Barriers
Access	1	IIIIOIIIIIIIIIII Z	Nonce	Notice 2	Caolion	Cdollonz	wariing	Walting 2	Damers
Point(s)									
Alpha	1								
Beta	2		2						
Gamma	1								
Delta									
Epsilon									

b. Proposed AT&T Signage

AT&T Signage Locations	Information 1	Information 2	Notice	Notice 2	Caution	Caution 2	Warning	Warning 2	Barriers
Access	illionnalion i	I IIIOITTIGIIOTT 2	Nonce	Nonce 2	Caonon	Cdollon 2	Walting	vvairiirig 2	Damers
Point(s)									
						_			
Alpha						2			
Beta				4					X
Gamma						2			
Delta									
Epsilon									

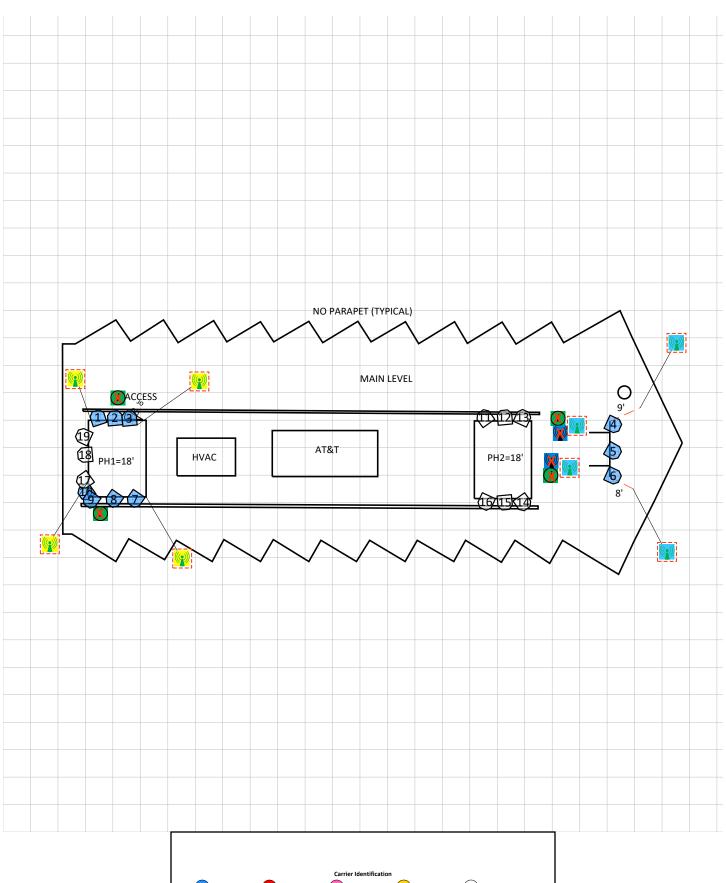


2 Scale Maps of Site

The following diagrams are included:

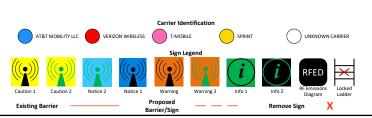
- Site Scale Map
- RF Exposure Diagram
- AT&T Mobility, LLC Contribution





) 13.1 26.2 www.sitesafe.com 7/1/2020 11:39:47 AM

(Feet)





3 Antenna Inventory

The following antenna inventory was obtained by the customer and was utilized to create the site model diagrams:

Ant ID	Operator	Antenna Make & Model	Туре	TX Freq (MHz)	Technology	Az (Deg)	Hor BW (Deg)	Ant Len (ft)	Power	Power Type	Power Unit			Total ERP (Watts)	Ant Gain (dBd)	Z	MDT	EDT
1	AT&T MOBILITY LLC (Shutdown)	KMW AM-X-CD-14-65-00T	Panel	737	LTE	17	67.0	4	0	TPO	Watt	0	1	0	11.66	11'	0°	5°
1	AT&T MOBILITY LLC (Shutdown)	KMW AM-X-CD-14-65-00T	Panel	1900	LTE	17	65.0	4	0	TPO	Watt	0	1	0	13.86	11'	0°	2°
2	AT&T MOBILITY LLC	Kathrein-Scala 742-264	Panel	850	UMTS	30	68.4	4.3	40	TPO	Watt	0	l	634	12.00	10.8'	0°	14°
3	AT&T MOBILITY LLC (Decommissioned)	Kathrein-Scala 742-264	Panel	850	GSM	30	68.4	4.3	0	TPO	Watt	0	1	0	12.00	10.8'	0°	0°
4	AT&T MOBILITY LLC	Kathrein-Scala 742-264	Panel	850	UMTS	150	68.4	4.3	40	TPO	Watt	0	1	634	12.00	6.8'	0°	14°
5	AT&T MOBILITY LLC (Shutdown)	KMW AM-X-CD-14-65-00T	Panel	737	LTE	155	67.0	4	0	TPO	Watt	0	1	0	11.66	7'	1°	10°
5	AT&T MOBILITY LLC (Shutdown)	KMW AM-X-CD-14-65-00T	Panel	1900	LTE	155	65.0	4	0	TPO	Watt	0	1	0	13.86	7'	1°	2°
6	AT&T MOBILITY LLC (Decommissioned)	Kathrein-Scala 742-264	Panel	850	GSM	150	68.4	4.3	0	TPO	Watt	0	1	0	12.00	6.8'	0°	0°
7	AT&T MOBILITY LLC (Proposed)	Cci DMP65R-BU4D	Panel	737	LTE	250	65.4	4	160	TPO	Watt	0	1	1581.7	9.95	11'	0°	9°
7	AT&T MOBILITY LLC (Proposed)	Cci DMP65R-BU4D	Panel	850	LTE	250	68.8	4	80	TPO	Watt	0	1	847.4	10.25	11'	0°	9°
7	AT&T MOBILITY LLC (Proposed)	Cci DMP65R-BU4D	Panel	850	5G	250	68.8	4	80	TPO	Watt	0	l	847.4	10.25	11'	0°	9°
7	AT&T MOBILITY LLC (Proposed)	Cci DMP65R-BU4D	Panel	1900	LTE	250	67.9	4	80	TPO	Watt	0	l	1770.5	13.45	11'	0°	6°
8	AT&T MOBILITY LLC (Proposed)	Cci DMP65R-BU4D	Panel	763	LTE	250	65.4	4	160	TPO	Watt	0	l	1581.7	9.95	11'	0°	9°
8	AT&T MOBILITY LLC (Proposed)	Cci DMP65R-BU4D	Panel	2100	LTE	250	67.1	4	240	TPO	Watt	0	1	6098.3	14.05	11'	0°	8°
9	AT&T MOBILITY LLC	Andrew SBNHH-1D65A	Panel	722	LTE	250	66.0	4.6	80	TPO	Watt	0	l	1076.7	11.29	10.7'	0°	9°
9	AT&T MOBILITY LLC	Andrew SBNHH-1D65A	Panel	2300	LTE	250	61.0	4.6	100	TPO	Watt	0	l	2691.5	14.30	10.7'	0°	8°
10	AT&T MOBILITY LLC	Kathrein-Scala 742-264	Panel	850	UMTS	270	68.4	4.3	40	TPO	Watt	0	1	634	12.00	10.8'	0°	14°
11	METRICOM	Generic	Panel	2500		0	65.0	4.1	0	ERP	Watt	0	0	0	15.01	1 <i>7</i> '	0°	0°
12	METRICOM	Generic	Panel	2500		30	65.0	4.1	0	ERP	Watt	0	0	0	15.01	1 <i>7</i> '	0°	0°
13	METRICOM	Generic	Panel	2500		60	65.0	4.1	0	ERP	Watt	0	0	0	15.01	1 <i>7</i> '	0°	0°
14	METRICOM	Generic	Panel	2500		180	65.0	4.1	0	ERP	Watt	0	0	0	15.01	1 <i>7</i> '	0°	0°
15	METRICOM	Generic	Panel	2500		210	65.0	4.1	0	ERP	Watt	0	0	0	15.01	1 <i>7</i> '	0°	0°
16	METRICOM	Generic	Panel	2500		240	65.0	4.1	0	ERP	Watt	0	0	0	15.01	1 <i>7</i> '	0°	0°
17	METRICOM	Generic	Panel	2500		270	65.0	4.1	0	ERP	Watt	0	0	0	15.01	1 <i>7</i> '	0°	0°
18	METRICOM	Generic	Panel	2500		300	65.0	4.1	0	ERP	Watt	0	0	0	15.01	1 <i>7</i> '	0°	0°
19	METRICOM	Generic	Panel	2500		330	65.0	4.1	0	ERP	Watt	0	0	0	15.01	17'	0°	0°

Note: The Z reference indicates the bottom of the antenna height above the main site level unless otherwise indicated. 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. Proposed equipment is tagged as (Proposed) under Operator or Antenna Make & Model.



4 Emission Predictions

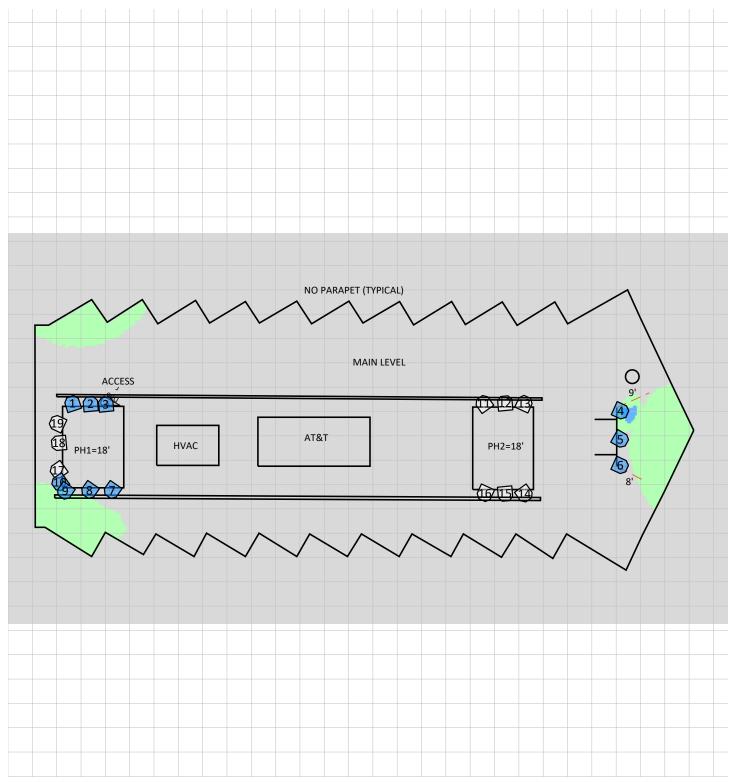
In the RF Exposure Simulations below, all heights are reflected with respect to main site level. In most rooftop cases this is the height of the main rooftop and in other cases this can be ground level. Each different height area, rooftop, or platform level is labeled with its height relative to the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

- MAIN LEVEL = 0'
- PH1 = 18'
- PH2 = 18'

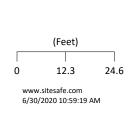
The Antenna Inventory heights are referenced to the same level.

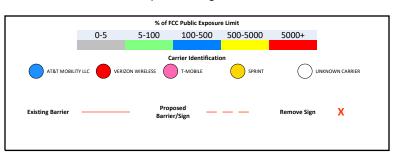
RF Exposure Simulation For: SONESTA Composite View





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

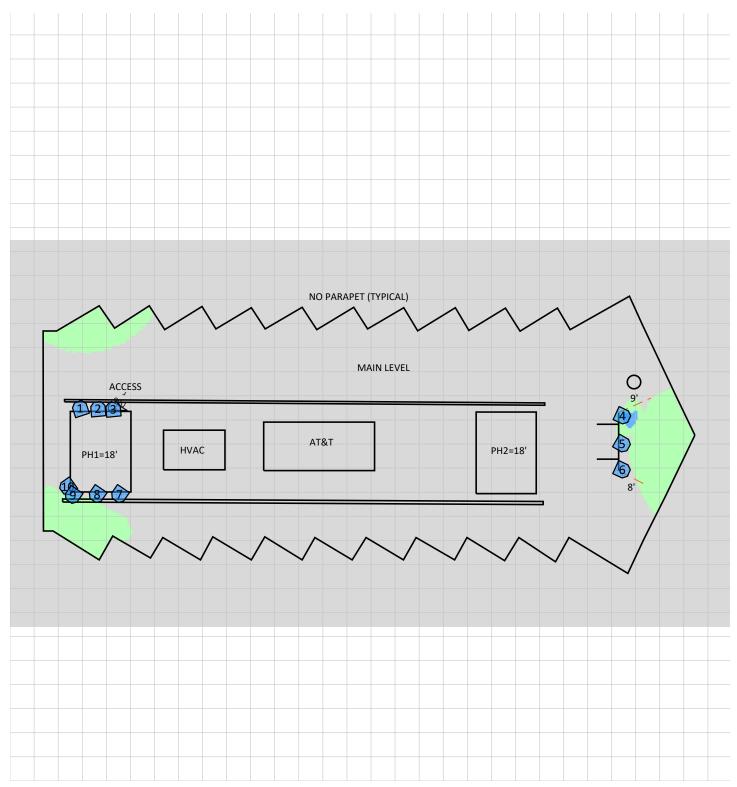




Sitesafe OET-65 Model Near Field Boundary: 1.5 * Aperture Reflection Factor: 1 Spatially Averaged

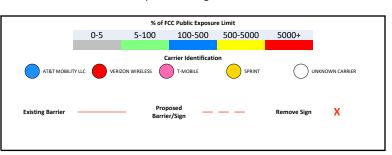
RF Exposure Simulation For: SONESTA AT&T Mobility Contribution





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





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



Site Compliance 5

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, and the level of restricted access to the antennas at the site.

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's 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 Beta Sector Location

(2) Blue Notice 2 signs required, one at each end of the antenna sector. Install a barrier that is 9' long, comprised of (1) segment and an estimated (2) stanchions, as depicted in the site scale map.

Install (1) total Blue Notice 2 sign on the proposed barrier stanchions. Install a barrier that is 8' long, comprised of (1) segment and an estimated (2) stanchions, as depicted in the site scale map.

Install (1) total Blue Notice 2 sign on the proposed barrier stanchions.

Recommended per AT&T Mobility, LLC's Policy:

Site Access Location

Sitesafe recommends that all AT&T Mobility, LLC signage be removed from all access points, as they are not required by AT&T Mobility, LLC's signage policy.

AT&T Mobility, LLC Alpha Sector Location

(2) Caution 2 signs required at the bottom tip of the antennas. Remove the existing Information 1 sign from this sector.

AT&T Mobility, LLC Beta Sector Location

Remove the existing Information 1 and Notice 1 signs from this sector.

AT&T Mobility, LLC Gamma Sector Location

(2) Caution 2 signs required at the bottom tip of the antennas. Remove the existing Information 1 sign from this sector.



Notes:

- Signage on the barriers should be placed on the stanchions 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.
- Any existing signage that conflicts with the proposed signage in this report should be removed per AT&T Signage Posting Rules.



6 Reviewer Certification

The reviewer whose signature appears below hereby certifies and affirms:

That I am an employee of Site Safe, LLC, in Vienna, 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 Electromagnetic Fields; 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 Sophie Thein.

July 1, 2020



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 evaluating 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.

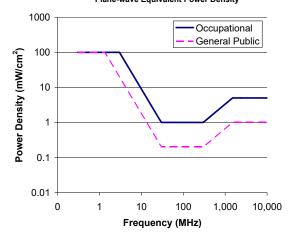
Occupational or Controlled limits apply in situations in which persons are exposed as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure.

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/cm²)	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-			5	6
100,000				

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/cm²)	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-			1.0	30
100,000				

f = frequency in MHz

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 Lockout/Tagout procedure aimed to control the unexpected energization or startup of machines when maintenance or service is being performed.

^{*}Plane-wave equivalent power density



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 worker's 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(s): Section 4 of this report contains RF Diagram(s) that outline 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. Gray areas are accessible to anyone.
- 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
- 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.

If trained occupational personnel require access to areas that are delineated as above 100% of the limit, Sitesafe recommends that they utilize the proper personal protection equipment (RF monitors), coordinate with the carriers to reduce or shutdown power, or make real-time power density measurements with the appropriate power density meter to determine real-time MPE levels. This will allow the personnel to ensure that their work area is within exposure limits.



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.



Appendix F - 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 for taking corrective actions to bring the site into compliance.

Compliance – The determination of whether a site complies with FCC standards with regards to Human Exposure to Radio Frequency Electromagnetic Fields 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) – The product of the power supplied to the antenna and the antenna gain in a given direction relative to a half-wave dipole antenna.

Gain (of an antenna) – The ratio of the maximum power in a given direction to the maximum power in the same direction from an isotropic radiator. Gain is a measure of the relative efficiency of a directional antenna as compared to an omnidirectional antenna.

General Population/Uncontrolled Environment – Defined by the FCC as an area where RF exposure may occur to persons who are **unaware** of the potential for exposure and who have no control over 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 its 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 rms and peak electric and magnetic field strength, their squares, or the plane-wave equivalent power densities associated with these fields to which a person may be exposed without harmful effect and with acceptable safety factor.



Occupational/Controlled Environment - Defined by the FCC as an area where RF 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 RF exposure 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 Exposure or Electromagnetic Fields – Electromagnetic waves that are propagated from antennas through space.

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 energy a 6-foot tall human body will absorb while present in an electromagnetic field of energy.

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 G - References

The following references can be followed for further information about RF Health and Safety.

Site Safe, LLC

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?sit earea=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-Ionizing Radiation

http://www.hpa.ora.uk/webw/HPAweb&HPAwebStandard/HPAweb C/1317133826368

Norwegian Institute of Public Health

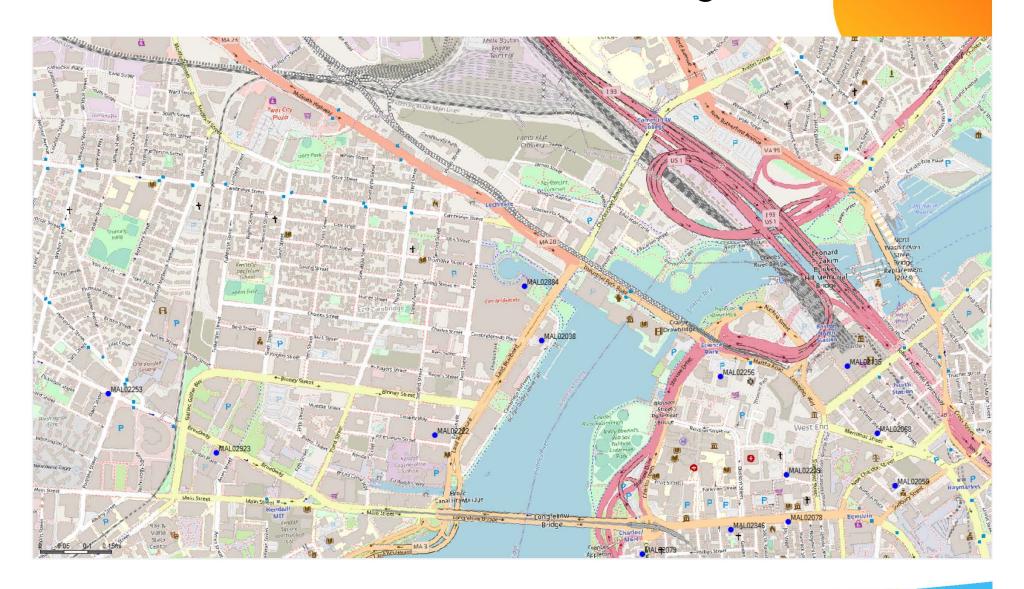
http://www.fhi.no/dokumenter/545eea7147.pdf



MAL02038 CoveragePlots

 Zoning 850 5G, LTE 700 Band 14, LTE 700 DE Band Plots

Current 850 5G Band Coverage



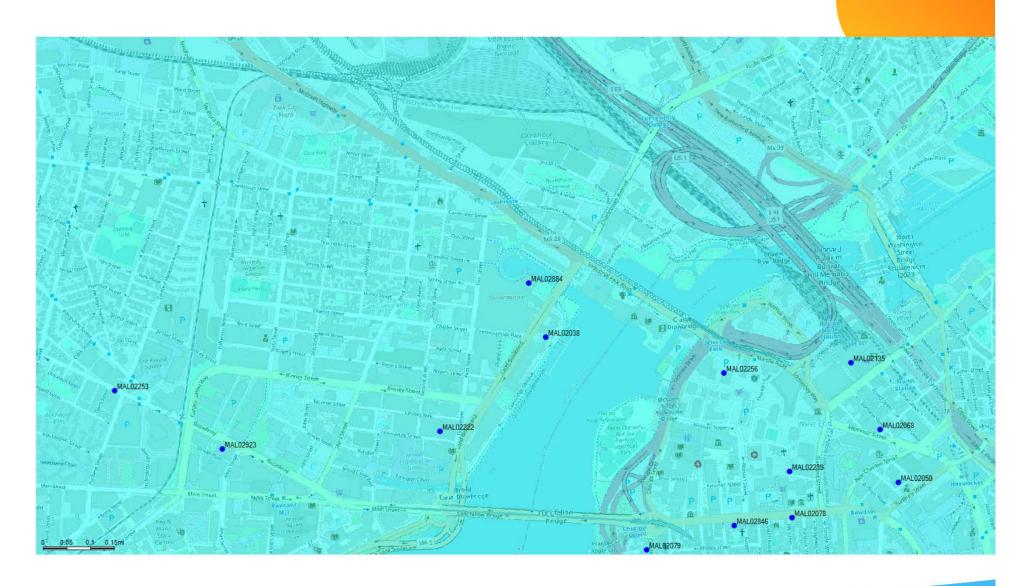


With Proposed MAL02038 5G 850 Band Coverage



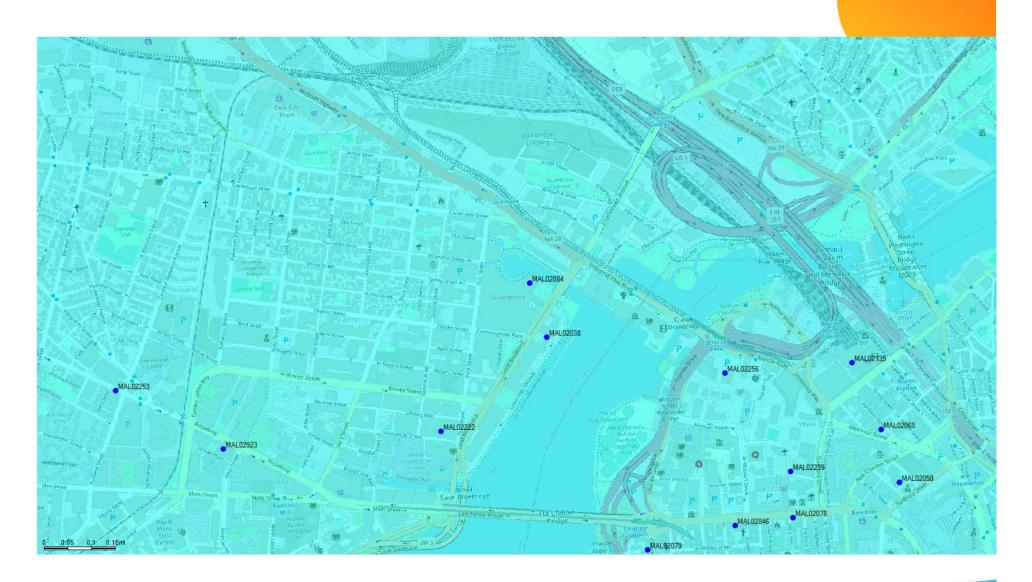


Current 700 Band 14 Band LTE Coverage





With Proposed MAL02038 700 Band 14 LTE Band Coverage





Existing 700 DE LTE Band Coverage





With Proposed MAL02038 700 DE LTE Band Coverage





- AND CONTRACTOR

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OUITCLAIM DEED

THE CITY OF CAMBRIDGE (the CITY), a body politic and corporate and a political subdivision of the Commonwealth of Hannachunetts, for good and valuable consideration and in full consideration of \$1,582,860, grants to Brian T. Owen, Boger P. Sonnabend and John J. Duane, Trustees of Chartechouse of Cambridge Trust, under dead of trust dated December 27, 1963, recorded with Middlenex South District Registry of Deeds in Book 11160, Page 340, as smended (TRUSTEES), a Mannachusetts business trust having a mailing address c/o BONESTA INTERNATIONAL HOTELS CORPORATION, 200 Clarendon Street, Boston, Hannachusetts, with quitclaim covenants, the land situated in Cambridge, County of Middlenex and Commonwealth of Mannachusetts, more particularly described an follows (the Premises):

The land between the easterly side of Commorcial Avenue and the western side of the Northern Traffic Artery (Cambridge Parkway) and shown on a plan by the City of Cambridge Litled "Land Acquisition Plan-Cambridge, Massachusetts", dated November 1980, and described as follows:

neginning at a point at the most northeasterly corner of the parcel to be described: said point being 3 350 280 39 W and 193.76 feet from a stone bound on the westerly side line of Cambridge Parkway;

THENCE, H 540 31' 21" W along land now or formerly of Brian T. Owen & Roger Sonnabend, said line being in the middle of a Right-Of-Way, to a distance of 175,00 feet to a point;

Fregorty Address: 31-37 Cartridge Farkway, Cartridge, Massachusetts 02142

THENCE, S 350 28° 39° W, along the easterly mideline of Commercial Avenue, a distance of 268.50 feet to a point;

THENCE, 'S 540 31' 21" E, through land now or formerly of Real Estate Investment Trust of America, a distance of 175.00 feet to a point;

THENCE, N 35° 28' 39" E, along the westerly nideline of Cambridge Parkway, a distance of 268.50 feet to the point of beginning.

The above described parcel contains 46,987.5 square feet, more or less.

Meaning and intending to convey and hereby conveying the same premises shows as "Area = 46,987 S.F. ±" on the plan entitled "LAND ACCUISITION PLAN FOR CITY OF CAMBRIDGE," dated November 19, 1980 by Cullinan Engineering Co., Inc., recorded with said Deeds in Book 14159, Page 51.

This deed shall be deemed to correct the following scrivener's errors which occurred in the Order of Taking: (i) the reference to "...the westerly side line of Cambridge Parkway..." was inadvertently described a "easterly"; (ii) the proper name "Arian T. Owen" was inadvertently spelled "Ownen"; and (iii) the reference to "...the easterly sideline of Commercial Avenue..." was inadvertently described as "westerly."

The Premises are conveyed subject to the provisions of an Attorney's Certificate of Affidavit of even date and record herewith relating to the provisions of a Development Agreement referred to therein affecting the Premises.

The CITY warrants to TRUSTERS that it has not dedicated the Premises for use as a public park in such manner as to require a special legislative act for approval of the deed pursuant to article 97 of the Amendments to the Massachusetts Constitution.

1

The CITY further warrants that no new right-of-way over the Premines is expressly granted or implied as a result of this deed or the plan described herein.

Furthermore, to ensure that the officer executing thin deed has power to deliver the same it is hereby declared that there has been full compliance with the provisions of Section 63% of Chapter 44 of the Hassachusetts General Laws.

For the title of the CITY see the Orders of Taking recorded with the Middlesex South District Registry of Deeds in Book 14159, Pages 51-52.

WITNESS the execution hereof under seal by the City of Cambridge, this 10^{12} day of January, 1983.

CITY OF CAMBRIDGE

City Manager

APPROVEDYS TO FORM

Y SOLIS HOIL

1

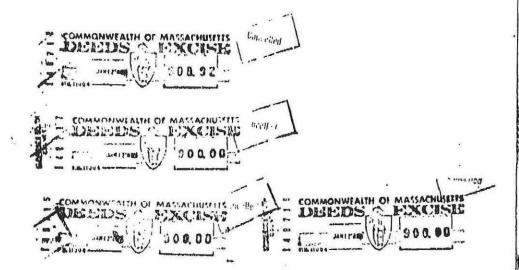
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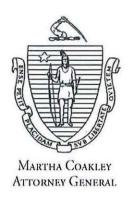
Middlosok, as.

January /0, 1983

Then personally appeared the above-named Robert W. Realy, City Manager of the City of Cambridge and acknowledged the foregoing instrument to be the free act and deed of said City of Cambridge, before me.

Note by Public By Cay
My commission Expires 12/33/88





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.

<u>Article 1</u> - 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)
- 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." <u>Sturges v. Chilmark</u>, 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.

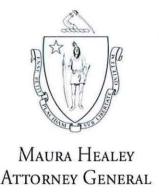
Note: Pursuant to G.L. c. 40, § 32, neither general nor zoning by-laws take effect unless the Town has first satisfied the posting/publishing requirements of that statute. Once this statutory duty is fulfilled, (1) general by-laws and amendments take effect on the date these posting and publishing requirements 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)



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.

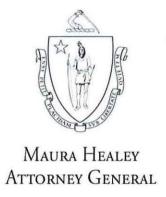
Very truly yours,

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



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).
- 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. <u>Section 8.7.2, Purpose</u>

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

*Sticolo Go. 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

Town Counsel Thomas Mullen

cc:

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 the soposals 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 edbrick or the graystoneband around the top of the tower.



12-17 VARSHNEY, ASHUTOSH & VIBHA PINGLE 75-83 CAMBRIDGE PKWY. E407 CAMBRIDGE, MA 02139 12-17 MERLION LLC PO BOX 1507 WAKEFIELD, MA 01880 SMARTLINK C/O KRISTINA COTTONE, 85 RANGEWAY RD. – BLDG 3 SUITE 102 NORTH BILLERICA, MA 01862

12-17
ESBAH-TABATABAIE, FARIBA
75-83 CAMBRIDGE PKWY E501
CAMBRIDGE, MA 02142

12-17 WINSTON, KENNETH I. & MARY JO BANE 75-83 CAMBRIDGE PKWY, #E1101 CAMBRIDGE, MA 02142 12-17
AL-NOWAIS, MOHAMMED &
CITY OF CAMBRIDGE TAX TITLE
75-83 CAMBRIDGE PKWY., UNIT E804
CAMBRIDGE, MA 02142

12-17
DAVIS, FRED G. & JANE HILBURT-DAVIS
75-83 CAMBRIDGE PKWY – UNIT #E808
CAMBRIDGE, MA 02142

12-17 KISHI, TOKIKO & YOSHITO KISHI 75-83 CAMBRIDGE PKWY. UNIT# E902 CAMBRIDGE, MA 02141 12-17 TERMINUS RM LLC 92 MONTVALE AVE SUITE 2500 STONEHAM, MA 02180

12-17
COLQUHOUN, HELEN
75-83 CAMBRIDGE PKWY. UNIT#W505
CAMBRIDGE, MA 02142

12-17 ANTUPIT, FRANCES V. 75-83 CAMBRIDGE PKWY, UNIT 604 CAMBRIDGE, MA 02142 12-17 WONG-HO IVY & LEE, WING-HO 75-83 CAMBRIDGE PKWY W605 CAMBRIDGE, MA 02139

12-17 MYERS, JAMES R. & GWENDOLYN A. MYERS 75-83 CAMBRIDGE PKWY. - UNIT #W702 CAMBRIDGE, MA 02142 12-17 YEE, RITA 75-83 CAMBRIDGE PKWY., #W804 CAMBRIDGE, MA 02142 12-17 STARK, MARTHA C. 83 CAMBRIDGE PKWY #909 CAMBRIDGE, MA 02142

12-17 YAP, LIANG 75-83 CAMBRIDGE PKWY., #E1004 CAMBRIDGE, MA 02142 12-17
ASAD, YOUSEF AHMAD, TRS.OF THE ESPLANADE
CONDOMINIUM UNIT E1006 REALTY TR.
75-83 CAMBRIDGE PKWY., UNIT E1006
CAMBRIDGE, MA 02142

12-17 PUTNOI, DONALD W. & FRANCIS S. PUTNOI 75-83 CAMBRIDGE PKWY - UNIT E1206 CAMBRIDGE, MA 02142

12-17 LEE, SUN KYUNG 75-83 CAMBRIDGE PKWY., UNIT W1005 CAMBRIDGE, MA 02141 12-17 PARK, BYUNG WON 75-83 CAMBRIDGE PKWY - UNIT W1008 CAMBRIDGE, MA 02142 12-17 ZARIE CAMBRIDGE LLC C/O BRETT DEROCKER 301 SHAWMUT AVE. UNIT 22 BOSTON, MA 02118

12-17
PARK, BYUNG WON
75-83 CAMBRIDGE PKWY. - UNIT #W1008
CAMBRIDGE, MA 02142

12-17 SMITHSON, JAMES L. & LOIS G. SMITHSON TRUSTEES OF 1106 ESPLANADE REALTY TRUST. 77 SUMMER STREET BOSTON, MA 02110 12-17 EVANS, LAWRENCE B. & BEVERLY A. EVANS 116 COOLIDGE HILL CAMBRIDGE, MA 02138

12-17 SANES, JOSHUA & SUSAN CORCORAN 75-83 CAMBRIDGE PKWY. - UNIT #E702 CAMBRIDGE, MA 02142 12-17 MCMAHON, NURHAJAH H. 3 FLATLEY AVE MANCHESTER, MA 01944 12-17 VON HIPPEL, ERIC & JESSIE VON HIPPEL TRUSTEES OF THE VON HIPPEL NOMINEE TRUST 75-83 CAMBRIDGE PKWY UNIT #E709 CAMBRIDGE, MA 02142

12-17 STIENING, RAE & NANCY STIENING 75-83 CAMBRIDGE PKWY. - UNIT #E903 CAMBRIDGE, MA 02142 12-17 MADHAVRAO, LAKSHMINARASIMHA & LALITHA SURYANARAYANA 1083 MCGREGOR WAY PALO ALTO, CA 93406 12-17
MAYER, DEBORA J. & SAMUEL S. DYER TRS,
THE DYER FAMILY INVESTMENT TRUST
3939 LEGATION ST. NW
WASHINGTON, DC 20015-2915

12-17
BUCKBEE, EDWARD J. & SUSAN L. LINDQUIST
75-83 CAMBRIDGE PKWY - UNIT# PH11
CAMBRIDGE, MA 02142

12-17 REDMOND, PHILIP R. AND FONG CHU 75-83 CAMBRIDGE PKWY - #W401 CAMBRIDGE, MA 02142 12-17 NATARAJAN, CHANDRASEKHAR 75-83 CAMBRIDGE PKWY, #W403 CAMBRIDGE, MA 02142

12-17 HORNER, MATINA S. & TIA A. HORNER TRUS OF MATINA S. HORNER REVOCABLE TR 75-83 CAMBRIDGE PKWY. W405 CAMBRIDGE, MA 02142 12-17 TOROUS, WALTER N. & JANE G. TOROUS, TRS THE TOROUS REV TRUST 75-83 CAMBRIDGE PKWY., #E801 CAMBRIDGE, MA 02142

DAME, CORINNE & SAMUEL DAME, TRUSTEE OF 75-83 CAMB PKWY E807 REALTY TR. 75-83 CAMBRIDGE PKWY. - UNIT#E807 CAMBRIDGE, MA 02142

12-17 TERMINUS RM, LLC 92 MONTVALE AVE, SUITE 2500 STONEHAME , MA 02180 12-17 TERMINUS RM LLC 92 MONTVALE AVE STONEHAM, MA 02180

STONE, PETER H. & PAOLA MALANOTTE STONE 75-83 CAMBRIDGE PKWY - # W502 CAMBRIDGE, MA 02142

12-17 LEE, YU-CHIN MICHELLE 311 SOUTH THIRD AVE. ARCADIA, CA 91006 12-17 YUNG, FRANKLIN C.C. & LUCIA Y.Z. YUNG 75-83 CAMBRIDGE PKWY., #W509 CAMBRIDGE, MA 02142 12-17 HYMAN, BRADLEY T. & CYNTHIA L. GROSSKREUTZ 75-83 CAMBRIDGE PKWY., #W602 CAMBRIDGE, MA 02142

12-17 SINHA, BIKASH K. & ASHA SINHA 75-83 CAMBRIDGE PKWY. #W603 CAMBRIDGE, MA 02142

FRUSZTAJER, ELISABETH 75-83 CAMBRIDGE PKWY, # W606 CAMBRIDGE, MA 02142

12-17

12-17 BUKER, WILLIAM L. 75-83 CAMBRIDGE PKWY #W701 CAMBRIDGE, MA 02142

12-17 PAI, SACHIN MANGALORE & KARIN ROESCH 75-83 CAMBRIDGE PKWY, #W703 CAMBRIDGE, MA 02142 12-17 WANG, DAVID DER-WEI 75-83 CAMBRIDGE PKWY. UNIT#W803 CAMBRIDGE, MA 02142 12-17 TAGHIZADEH, NAZBEH 75-83 CAMBRIDGE PKWY., #W805 CAMBRIDGE, MA 02142

12-17 FARSHEED, MARCO M. 83 CAMBRIDGE PKWY. UNIT#W806 CAMBRIDGE, MA 02142 12-17 MENHALL, NASSER 83 CAMBRIDGE PKWY #W808 CAMBRIDGE, MA 02142 12-17
EYUBOGLU, CENK & MERT O. EYUBOGLU
75-83 CAMBRIDGE PKWY UNIT#W906
CAMBRIDGE, MA 02142

12-17 STARK, MARTHA 83 CAMBRIDGE PKWY UNIT W909 CAMBRIDGE, MA 02142 12-17 NAHUM, JEREMY P. & KATHERINE H. NAHUM 83 CAMBRIDGE PARKWAY #W908 CAMBRIDGE, MA 02142 12-17 BLALOCK, JANE B., TRUSTEE JANE B. BLALOCK TRUST 75-83 CAMBRIDGE PKWY CAMBRIDGE, MA 02142

12-17 PARK, BYUNG WON 75-83 CAMBRIDGE PKWY #W1008 CAMBRIDGE, MA 02142

TAGHIZADEH, ROUZBEH R. 75-83 CAMBRIDGE PKWY - UNIT#W404 CAMBRIDGE, MA 02142 12-17 HORNER, MATINA S. & TIA A. HONER TR. OF THE MATINA S. HORNER REV TR-2008 75-83 CAMBRIDGE PKWY. W406 CAMBRIDGE, MA 02142

12-17 GAJEWSKI, JERZY, TRUSTEE OF THE 75-83 CAMBRIDGE PARKWAY - UNIT #408 CAMBRIDGE, MA 02142 12-17 YUE, EVA W. 5 STILLMEADOW RD. WESTON, MA 02493

12-17 WANG, TERESA & WADE CHIEN 75-83 CAMBRIDGE PKWY. - UNIT #W503 CAMBRIDGE, MA 02142

12-17 12-17 12-17 AN, NING & SI PING YU PATEL, RAJI R., **KUAN, SENG** 22 WAVERLEY AVE TRUSTEE THE RAJI R. PATEL REV TRUST 75-83 CAMBRIDGE PKWY, #W510 83 CAMBRIDGE PKWY, #W508 CAMBRIDGE, MA 02142 NEWTON, MA 02458 CAMBRIDGE, MA 02142 12-17 12-17 12-17 TAGHIZADEH, ROUZBEH R. BASIN VIEW, INC. BEAL, ENID, 75-83 CAMBRIDGE PKWY #W601 TR. THE UNIT W 610 NOMINEE TRUST P.O. BOX 11715 COLUMBIA, SC 29211-1715 CAMBRIDGE, MA 02142 75-83 CAMBRIDGE PKWY. - UNIT #W610 CAMBRIDGE, MA 02142 12-17 12-17 12-17 CHUN, JOHNG H. & THERESA J. CHUN SARAB, INC. HO, SING-JU C/O MRS. MOI-SHIEN LIEN 55 TOLLAND RD. **C/O EXIT REALTY ASSOCIATES** NO. ANDOVER, MA 01845 1114 COMMONWEALTH AVE #6 **26 BERKSHIRE DR** WINCHESTER, MA 01890 ALLSTON, MA 02134 12-17 12-17 12-17 ALTHANI, J.H. JASSIM ABDUL AZZIZ TR E-AL & DAVIS, G. AHSLEY MILLARD, ROBERT B. & BETHANY MILLARD CITY OF CAMBRIDGE TAX TITLE 75-83 CAMBRIDGE PKWY UNIT E1005 9 EAST 88TH ST C/O ESPLANADE PK MANAGEMENT CAMBRIDGE, MA 02142 NEW YORK, NY 10128 P.O. BOX 381900 CAMBRIDGE, MA 02238 12-17 12-17 12-17 HASAN, AL-AMOUDI AL TAMIMI, FAHAD & ANUD AL SHISHAKLY, LI, XIAO-LI & XIAO-GANG WEN TR OF TAMIMI FAMILY TRUST 75-83 CAMBRIDGE PKWY, UNIT E1203 **75-83 CAMBRIDGE PKWY., #E503** 75-83 CAMBRIDGE PKWY #W1002 CAMBRIDGE, MA 02139 CAMBRIDGE, MA 02142 CAMBRIDGE, MA 02142 12-17 12-17 12-17 SAWYER, JEFFREY A. & MATTHEW SAWYER **ULLIAN, THOMAS** RICHMOND, MIRIAM W., TRUSTEE THE MIRIAM 75-83 CAMBRIDGE PKWY. - UNIT #E601 75-83 CAMBRIDGE PKWY. - UNIT E506 W. RICHMOND REV TRUST CAMBRIDGE, MA 02142 CAMBRIDGE, MA 02142 75 CAMBRIDGE PKWY., #E602 CAMBRIDGE, MA 02142 12-17 12-17 12-17 STONE, DAVID W. & HEATHER L. HOHENTHAL SHULMAN, FAYE O. YOUSIF AL MOWAIS, MOHAMMED 75-83 CAMBRIGE PKWY UNIT E605 75-83 CAMBRIDGE PKWY. E603 CITY OF CAMBRIDGE TAX TITLE CAMBRIDGE, MA 02142 CAMBRIDGE, MA 02142 75-83 CAMBRIDGE PKWY., UNIT # E606 CAMBRIDGE, MA 02142 12-17 12-17 12-17 **BOK, DEREK C. & SISSELA ANN BOK** CHENG, CLIFF YUNG, FRANKLIN CHU CHING & 75-83 CAMBRIDGE PKWY. - UNIT E608 75-83 CAMBRIDGE PKWY. - UNIT# E701 **LUCIA YUK ZAI YUNG** 75-83 CAMBRIDGE PKWY. - UNIT E607 CAMBRIDGE, MA 02142 CAMBRIDGE, MA 02142 CAMBRIDGE, MA 02142 12-17 12-17 **KUO, SHUNWA** KHOLI, HAMZA AL & TODD D. SHELTON, PEPIN, PAULINE F. TRS. C/O DALY CAVANAUGH LLP 75 CAMBRIDGE PARKWAY, UNIT E705 75-83 CAMBRIDGE PKWY., #E707 CAMBRIDGE, MA 02141 27 MICA LANE CAMBRIDGE, MA 02142 WELLESLEY, MA 02481

12-17 NANGIA, CHIRAG & ASHOK NANGIA 75-83 CAMBRIDGE PKWY. #E805 CAMBRIDGE, MA 02142 12-17
EISEN, HERMAN N., NATALIE A. EISEN TR &
CITY OF CAMBRIDGE TAX TITLE
75-83 CAMBRIDGE PKWY - UNIT #E806
CAMBRIDGE, MA 02142

12-17 GOLDSTEIN, CLAIRE L. 75-83 CAMBRIDGE PKWY., #E901 CAMBRIDGE, MA 02142 12-17 CHEN, THEODORE C. & BERNICE K. CHEN 75-83 CAMBRIDGE PKWY - # E908 CAMBRIDGE, MA 02142 12-17 FELTER, JOHN KENNETH 75-83 CAMBRIDGE PKWY - UNIT E909 CAMBRIDGE, MA 02142 12-17 SHISHAKLY, ANUD AL & FAHAD AL TAMIMI 75 CAMBRIDGE PKWY - #PH10 CAMBRIDGE, MA 02142

12-17 BERTELLI, MARY KATHRYN 75 CAMBRIDGE PKWY. UNIT#PH12 CAMBRIDGE, MA 02412 12-17 AL NOWAIS, ALI HUSSAIN 75-83 CAMBRIDGE PKWY., #W402 CAMBRIDGE, MA 02142

12-17

12-17 MOKHTARI, SASAN & MARY E. BROWN 9991 DELL ROAD EDEN PRARIE, MN 55347

12-17 SALISBURY, RUSS J. & MARGOT S. SALISBURY 75-83 CAMBRIDGE PKWY - PH4 CAMBRIDGE, MA 02142

YEE, JOHN F., TRUSTEE THE JOHN F. YEE 2004 REV TRUST 75-83 CAMBRIDGE PKWY., #W802 CAMBRIDGE, MA 02142 MENHALL, NASSER 83 CAMBRIDGE PKWY #W808 CAMBRIDGE, MA 02142

12-17

12-17

12-17 KATIS, NICHOLAS H. 75-83 CAMBRIDGE PKWY. - UNIT W905 CAMBRIDGE, MA 02142 12-17 GIBBONS, ROSE 75-83 CAMBRIDGE PKWY UNIT W1103 CAMBRIDGE, MA 02142

NEGAHBAN, AZITA 75-83 CAMBRIDGE PKWY. UNIT#W1204 CAMBRIDGE, MA 02142

12-17 HO, ALEXANDER J. & PAULINE Y. HO, TRUSTEES OF APLEX REALTY TRUST 69 GRANDNER COURT BRIDGEWATER, NJ 08807

COHEN, CLIFFORD R. & WILLIAM V. SOPP TRS. OF ESPLANADE E1102 NOMINEE TR. 75-83 CAMBRIDGE PKWY., #E1102 CAMBRIDGE, MA 02142

GARFIELD, JOSEPH M. & FRANCES B GARFIELD 75-83 CAMBRIDGE PKWY.UNIT #E1103 CAMBRIDGE, MA 02142

12-17
ALTHANI, JASSIM ABDUL AZIZ J.H.,TR ET-AL & CITY OF CAMBRIDGE TAX TITLE
C/O ESPLANADE PK MANAGEMENT
P.O. BOX 381900
CAMBRIDGE, MA 02238

12-17 MALCOLM, OSCAR F. & SANDRA D. STRATFORD 75-83 CAMBRIDGE PKWY. - UNIT #E1106 CAMBRIDGE, MA 02142 12-17 SPENCER, AARON D. 51 GREY STONE PATH DEDHAM, MA 02026

12-17 KUBAR HOLDING INC. 176 FEDERAL ST BOSTON, MA 02110

MERTON, ROBERT C. 75-83 CAMBRIDGE PKWY. UNIT E1108 CAMBRIDGE, MA 02142 12-17 SKOWRONSKI, STANLEY & CHRISTINE H. SKOWRONSKI 75-83 CAMBRIDGE PKWY. UNIT#E1205 CAMBRIDGE, MA 02142

12-17 BERNSTEIN, AMY J. 75-83 CAMBRIDGE PKWY W1001 CAMBRIDGE, MA 02142 12-17 ZHOU, JIANYING TRUSTEE OF ZHOUSHI REALTY TRUST 11191 BRITTANY LN DUBLIN, CA 94568 12-17 JOHNSTON, ANNE E. 75-83 CAMBRIDGE PKWY., #W1009 CAMBRIDGE, MA 02142

12-17 ESBAH-TABATABAIE, FARIBA 75-83 CAMBRIDGE PKWY., #W1102 CAMBRIDGE, MA 02142 12-17 LIEBERMAN, LAWRENCE & GLORIA LIEBERMAN TRUSTEE OF 1105-W REALTY TRUST 83 CAMBRIDGE PKWY. UNIT#W1105 CAMBRIDGE, MA 02142 12-17 STEINER, LISA 75-83 CAMBRIDGE PKWY. - UNIT#W1205 CAMBRIDGE, MA 02142

12-17
FILIOTIS, DIONYSIOS
C/O THE LAW OFFICE OF MICHAEL G. GATLIN
61 NICHOLAS RD. #B5
FRAMINGHAM, MA 01701

12-17 MOREAU, SYLVIANE & JACQUES-PIERRE M. MOREAU 159 WESTBORO RD UPTON, MA 01568 12-17 NEGAHBAN, KAMBIZ 75-83 CAMBRIDGE PKWY.,UNIT #E1202 CAMBRIDGE, MA 02141 12-17 BAGGEROER, CAROL A. 83 CAMBRIDGE PKWY. W1003 CAMBRIDGE, MA 02142

11-47/11-145/10-44 CITY OF CAMBRIDGE C/O NANCY GLOWA CITY SOLICITOR

12-17 GARGANO, PAUL A. & SHEILA K. GARGANO 22 WIANNO AVE OSTERVILLE, MA 02655

12-17 BIBI (US) CORPORATION, 176 FEDERAL ST. BOSTON, MA 02110

12-17
CHIRATHIVAT, SUDITHAM & SANHAJUTHA
CHIRATHIVAT
9/9 SATORN SOI 1
BANKKOK, -- 10120

12-17 CHUN, AILEEN S. & KATY C. CHUN 75-83 CAMBRIDGE PKWY #PH3 CAMBRIDGE, MA 02142

12-17 LI, XIAO-LI, TRUSTEE THE XIAO-LI LI TRUST-2015 75-83 CAMBRIDGE PKWY., #E504 CAMBRIDGE, MA 02142

12-17 HWACHII LIEN, TRUSTEE E708 ESPLANDADE REALTY TRUST 51 VIA LOS ALTOS TIBURON, CA 94920

12-17 MANCINI, LAURA 75-83 CAMBRIDGE PKWY. - UNIT #W1203 CAMBRIDGE, MA 02139

12-17 EPHRAIM, DAVID M. TRUSTEE THE ALBA REALTY TRUST 75-83 CAMBRIDGE PKWY., #206 CAMBRIDGE, MA 02142 12-17 OHRI, ANIL K. & MEERA OHRI 94 BIGELOW DR SUDBURY, MA 01776

11-47/11-145/10-44 CITY OF CAMBRIDGE C/O LOUIS DEPASQUALE CITY MANAGER

12-17 BARRON, SUSAN B., TRS THE SUSAN BARRON 2009 TRT 83 CAMBRIDGE PARKWAY W203 CAMBRIDGE , MA 02142

12-17 EPHRAIM, DAVID M. TRUSTEE THE ALBA REALTY TRUST 75-83 CAMBRIDGE PKWY., #207 CAMBRIDGE, MA 02142

12-17 MAHMUD, NABILA 75-83 CAMBRIDGE PKWY., #311 CAMBRIDGE, MA 02142

12-17 CAMBRIDGE PARKWAY, LLC, 75-83 CAMBRIDGE PKWY. PH6 CAMBRIDGE, MA 02142

12-17
ALI YATEEM, TRUSTEE OF THE YATEEM REAL
ESTATE TRUST
P.O. BOX 60, MANAMA
ARABIAN GULF, ___

8-89
KARP, STEPHEN R., STEPHEN C. PLUMERI &
WILLIAM H. MCCABE, JR.
C/O NEW ENGLAND DEVELOPMENT
75 PARK PLAZA
BOSTON, MA 02116

12-17 TYE, EILEEN A LIFE ESTATE 75-83 CAMBRIDGE PKWY., #103 CAMBRIDGE, MA 02142

12-17 SPENCER-GREEN, GEORGE T., TRS THE GTSG KIA ORA TRUST 75-83 CAMBRIDGE PKWY UNIT #208 CAMBRIDGE. MA 02142 12-17 GROMMERS, SU-CHIN C/O EMMA SUE BROWN 75 CAMBRIDGE PARKWAY #W1104 CAMBRIDGE, MA 02142

11-47 /11-145/10-44 CAMBRIDGE CITY OF COMM. DEV. 57 INMAN ST CAMBRIDGE, MA 02139

12-17 SALDANHA, ROSEMARIE 75-83 CAMBRIDGE PKWY., #204 CAMBRIDGE, MA 02142

12-17
CASSERES, JANE GOMES,
TRUSTEE JANE GOMES CASSERES REV TRUST
JAN HAAYENWEG 9
WILLEMSTAD, -- ----

12-17 HIROSE, TATSUO & TAKAKO HIROSE 75-83 CAMBRIDGE PKWY, PH1 CAMBRIDGE, MA 02142

12-17 REDEVCO C/O BANU ATKINSON 75 CAMBRIDGE PKWY SUITE #E502 CAMBRIDGE , MA 02142

12-17 AL-AMOUDI, HASAN O. & 75-83 CAMBRIDGE PKWY - UNIT #E703 CAMBRIDGE, MA 02142

11-40 55 CAMBRIDGE PARKWAY, LLC C/O MARVIN F. POER & CO 3520 PIEDMONT RD NE, SUITE 410 ATLANTA, GA 30305

12-17 GRAYZEL, FRIEDA T.M TRUSTEE THE FRIEDA T. GRAYZEL 75-83 CAMBRIDGE PKWY., #201 CAMBRIDGE, MA 02141

12-17 TYE, EILEEN A LIFE ESTATE 75-83 CAMBRIDGE PKWY., #102 CAMBRIDGE, MA 02142 12-17 GOGAN, JANIS L. & ASHOK RAO 75-83 CAMBRIDGE PKWY. UNIT#105 CAMBRIDGE, MA 02139

12-17
GLASSMAN, MITCHELL J. AS
TRUSTEE OF THE GLASSMAN TRUST
75-83 CAMBRIDGE PKWY UNIT# E210
CAMBRIDGE, MA 02142

12-17 GROVE, ARTHUR S., JR. 75-83 CAMBRIDGE PKWY. - UNIT#306 CAMBRIDGE, MA 02142

12-17
ELHALWAGY, MOSTAFA E. NAGLA R. &
SHERIF ELHALWAGY
75-83 CAMBRIDGE PKWY, E505
CAMBRIDGE, MA 02142

12-17 TWAALFHOVEN, SANDRA JEAN HANEY 75-83 CAMBRIDGE PKWY., #305 CAMBRIDGE, MA 02142

12-17 SHERIDAN, ROSEMARIE 75-83 CAMBRIDGE PKWY, #E404 CAMBRIDGE, MA 02142

12-17 YEYINMEN, CIGDEM 75-83 CAMBRIDGE PKWY., #101 CAMBRIDGE, MA 02142

12-17 ASERKOFF, BERNARD & JANET ASERKOFF 75-83 CAMBRIDGE PKWY. - UNIT #308 CAMBRIDGE, MA 02142

12-17
LOHNES, PAUL F.,
TRUSTEE OF MUDDY WATER REALTY TRUST.
C/O LAVERTY/ LOHNES PROPERT.
75 CAMBRIDGE PKWY, SUITE #100
CAMBRIDGE, MA 02142-1229

12-17 KAGAN, ROBERT A., TRUSTEE THE ROBERT A. KAGAN FAMILY TRUST 75-83 CAMBRIDGE PKWY., #E405 CAMBRIDGE, MA 02142 12-17 CEYER, SYLVIA T. 75-83 CAMBRIDGE PKWY. UNIT#107 CAMBRIDGE, MA 02142

12-17 BRENNAN, JOHN A.. JR. & PATRICIA M. BRENNAN, TRUSTEES 75-83 CAMBRIDGE PKWY, #301 CAMBRIDGE, MA 02142

12-17
MAGEE, CHRISTOPHER L., TRUSTEE & JO ANNE
HUNTLEY & CHRISTOPHER L. MAGEE
751 EAST RD
RICHMOND, MA 01254

12-17 SIEGEL, SEA KWON 75-83 CAMBRIDGE PKWY., #E507 CAMBRIDGE, MA 02142

12-17
SAINI, VIRENDER K. & MANORAMA SAINI TRS.
OF THE MANORAMA SAINI FANILY TRUST
75-83 CAMBRIDGE PKWY, UNIT #PH7
CAMBRIDGE, MA 02141

12-17 WILSON, WILLIAM JULIUS 75-83 CAMBRIDGE PKWY., #E406 CAMBRIDGE, MA 02142

12-17 SARAGAS, SAVVAS JOHN 75-83 CAMBRIDGE PKWY., #202 CAMBRIDGE, MA 02142

12-17 CROSBY, LEO E. & JANICE E. CROSBY 75-83 CAMBRIDGE PKWY., #309 CAMBRIDGE, MA 02142

12-17 CROWLEY, WILLIAM F., JR. 75-83 CAMBRIDGE PKWY. - UNIT#PH4 CAMBRIDGE, MA 02142

12-17 ROSE E. DON & NINA F. SIMONDS 75-83 CAMBRIDGE PKWY E409 CAMBRIDGE, MA 02142 12-17 SHIANG, ELAINE LI, TRUSTEE THE ELAINE LI SHIANG TRUST 75 CAMBRIDGE PKWY UNIT 108 CAMBRIDGE, MA 02142

12-17 LAU, DAVID K. & ARYONG MOON 75-83 CAMBRIDGE PKWY., #303 CAMBRIDGE, MA 02142

12-17 ROVEE, DAVID & JOANNE ROVEE 75 CAMBRIDGE PKWY., UNIT# E402 CAMBRIDGE, MA 02142

12-17 SKIFFINGTON, SERENA 75 CAMBRIDGE PKWY., #209 CAMBRIDGE, MA 02142

12-17 MINEAR, RALPH E.,JR. 75 CAMBRIDGE PKWY. - UNIT# E403 CAMBRIDGE, MA 02142

12-17 RASMUSSEN, JAMES & PAMELA MILLER 75-83 CAMBRIDGE PKWY., #410 CAMBRIDGE, MA 02142

12-17 CHU, YANG HUA & WEI-NI CHEN TRUSTEES OF THE CHU TRUST 1025 WINDSOR DR. MENLO PARK, CA 94025

12-17 LIN, MEI 75-83 CAMBRIDGE PKWY., #310 CAMBRIDGE, MA 02142

12-17 CHUN, CHU S. & KATY C. CHUN 75-83 CAMBRIDGE PKWY - #PH5 CAMBRIDGE, MA 02142

12-17 HAMPTON, JUDITH D., TR. THE JUDI HAMPTON 2014 REALTY TRUST 75-83 CAMBRIDGE PKWY., #E411 CAMBRIDGE, MA 02142 12-17 GREENE, JANET F. 75-83 CAMBRIDGE PKWY. UNIT#E508 CAMBRIDGE, MA 02142 12-17 LEE, NAE-KUN, & HONG JA LEE 153W 12TH STREET NEW YORK, NY 10011 12-17 TAGHIZADEH, KOLI 75-83 CAMBRIDGE PKWY #E511 CAMBRIDGE, MA 02142

12-17 BOK, DEREK C. & SISSELA ANN BOK 75-83 CAMBRIDGE PKWY - # E610 CAMBRIDGE, MA 02142 12-17 ROBERTS, MARTIN 75-83 CAMBRIDGE PKWY.UNIT#E706 CAMBRIDGE, MA 02142

SUBRAMANIAM, SUNDAR 75-83 CAMBRIDGE PKWY., #W1108 CAMBRIDGE, MA 02142

12-17

9-31 SONESTA, ROYAL SONESTA HOTEL BOSTON C/O RYAN, LLC 1 INTERNATIONAL PL 100 OLIVER STREET, 18TH FL. BOSTON, MA 02110

MASSACHUSETTS COMMONWEALTH OF 20 SOMERSET ST BOSTON, MA 02108 8-88
CAMBRIDGE, CITY OF
C/O NEW ENGLAND DEVELOPMENT
75 PARK PLAZA
ATTN: ACCOUNTING DEPT
BOSTON, MA 02116

274-1A CHARLESGATE YACHT CLUB 20 CAMBRIDGE PKWY CAMBRIDGE, MA 02142

MCDERMOTT H. DIANE TRUSTEE OF THE MCDERMOTT DECLARATION OF TRT 83 CAMBRIDGE PARKWAY UNIT #W706 CAMBRIDGE, MA 02142

12-17 KWEI, THOMAS AMY S. KWEI 75-83 CAMBRIDGE PKWY UNIT #PH8 CAMBRIDGE, MA 02141

12-17 PLUKAS HANS RUSSELL BOLANOS CASSANDRA 75-83 CAMBRIDGE ST - UNIT W901 CAMBRIDGE, MA 02142 12-17 ROSE DON E NINA F SIMONDS 75-83 CAMBRIDGE PKWY #E408 CAMBRIDGE, MA 02142 12-17 THREE NINETY CW LLC 1960 SILAS DEANE HWY - STE 201 ROCKY HILL, CT 06067

12-17
RESERVITZ, GEORGE B.,
TRUSTEE PHYLLIS E. RESERVITZ TRUSTEE
75-83 CAMBRIDGE PKWY PH2
CAMBRIDGE, MA 02142

GARGANO, SHEILA K. PAUL A. GARGANO P.O. BX 444 WEST HYANNISPORT, MA 02672 COVO, SUSAN P. & HERMINE ADAMIAN, TRS 65 GROVE ST APT 350 WELLESLEY, MA 02482

12-17 GUAN, GUOLIANG & YURONG WANG 75-83 CAMBRIDGE PKWY. UNIT E803 CAMBRIDGE, MA 02142 12-17 THE 30 FRANCIS LLC PO BOX 335 TOWNSEND, VT 05353 12-17 MILLER, ALFRED E. MARIA G. MILLER, TRS 75-83 CAMBRIDGE PKWY #W708 CAMBRIDGE, MA 02142

10-65 CHARLES PARK OWNER LLC 801 GRAND AVE DES MOINES, IA 50392 12-17 DEYKIN DANIEL TRS DANIEL DEYKIN TR 75-83 CAMBRIDGE PKWY - UNIT W1107 CAMBRIDGE, MA 02142 12-17 GROSSMAN BETTY J 83 CAMBRIDGE PKWY - UNIT W 609 CAMBRIDGE, MA 02142

12-17 LIU XINGRONG CHEN CUIPING 75-83 CAMBRIDGE PKWY - UNIT #304 CAMBRIDGE, MA 02142 12-17 LIPSITT, DON R., TRS THE DON R. LIPSITT 1982 TRUST 75-83 CAMBRIDGE PKWY #W1202 CAMBRIDGE, MA 02142

LEE, MARK SHARON LOUISE JOHNSTON-LEE 75-83 CAMBRIDGE PARKWAY UNIT #W807 CAMBRIDGE, MA 02142

12-17 HYNEK DANIEL TRS & HYNEK JOANNE TRS 75-83 CAMBRIDGE PARKWAY #E401 REALTY TR 75-83 CAMBRIDGE PKWY #E401 CAMBRIDGE, MA 02142 12-17
RHEE DAVID Y TRS &
RHEE YOON-HEE TRS RHEE REALTY TR
75-83 CAMBRIDGE PKWY UNIT W607
80 Fawcett st #319
CAMBRIDGE, MA 02142

12-17 MOHAMED, SHAIDA L. ALYKHAN I. MOHAMED, TRS 83 CAMBRIDGE PKWY UNIT W407 CAMBRIDGE, MA 02142 12-17
FRANCO LAURA
TRS KUNG FAMILY COMPLETED GIFT TRUST
300 CENTRAL PARK W APT 19C
NEW YORK, NY 10024

12-17 JIANG, OWEN XIAOHE JING JING WANG 75-83 CAMBRIDGE PKWY UNIT E1003 CAMBRIDGE, MA 02142

DEPARTMENT OF CONSERVATION & RECREATION 251 CAUSEWAY STREET – SUITE 600 BOSTON, MA 02114-2119

12-17 RAO V. MOOTHA VASANTHA L. MOOTHA, TRUSTEES 7303 PARK LAKE DR DALLAS, TX 75230

12-17 TOROUS, WALTER JANE TOROUS, TRS 75-83 CAMBRIDGE PKWY UNIT E510 CAMBRIDGE, MA

9-61 CAMBRIDGE, LLC C/O JUNSON CAPITAL, UNITS 5211-12, 52/F THE CENTER, 99 QUEENS ROAD CENTRAL HONG KONG 12-17 DODYK, DELIGHT W., TRUSTEE THE DELIGHT W. DODYK REV TRUST 75-83 CAMBRIDGE PKWY #W709 CAMBRIDGE, MA 02142

12-17 BORRAS, M. CRISTINA & PEDRO ELOSEGUI C/O CRISTINA BORRAS 75-83 CAMBRIDGE PKWY.,UNIT #W704 CAMBRIDGE, MA 02142



City of Cambridge

MASSACHUSETTS

BOARD OF ZONING APPEAL

831 Mass Avenue, Cambridge, MA. (617) 349-6100



BZA

POSTING NOTICE - PICK UP SHEET

The undersigned picked up the notice board for the Board of Zoning Appeals Hearing.

Name: K	ristina Cottone (Print)	Date: 5/20/2
Address:	40 Land Borlevar	<u>.</u>
Case No	BTA-118920	
Hearing Date	: 6/10/21	48)

Thank you, Bza Members