



CITY OF CAMBRIDGE

BOARD OF ZONING APPEAL

831 Massachusetts Avenue, Cambridge MA 02139

617-349-6100

NOV 20 11 09 AM
CITY OF CAMBRIDGE
RECORDS & COMMUNICATIONS

BZA Application Form

BZA Number: 248915

General Information

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

Special Permit: X Variance: Appeal:

PETITIONER: T-Mobile Northeast for 678 Mass. Ave. LLC C/O Adam F. Braillard of Prince Lobel Tye LLP

PETITIONER'S ADDRESS: One International Place, Boston, MA 02110

LOCATION OF PROPERTY: 678 Massachusetts Ave., Cambridge, MA

TYPE OF OCCUPANCY: Telecommunications and Business **ZONING DISTRICT:** Business B Zone

REASON FOR PETITION:

/Telecommunication Facility (antenna)/

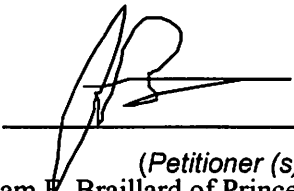
DESCRIPTION OF PETITIONER'S PROPOSAL:

The Applicant proposes to modify its existing facility by replacing the existing twelve (12) panel antennas with eight (8) new panel antennas, as well as replacing the existing eight (8) RRUs and six (6) TMAs with eight (8) new like kind RRHs. All of the antennas associated with the Proposed Facility will be installed in the same locations as the existing antennas, and those antennas that are facade mounted on the penthouse of the building will be painted to match the color of the building.

SECTIONS OF ZONING ORDINANCE CITED:

- Article: 4.000 Section: 4.32.G.1 and Sec. 4.40 (Footnote 49, Telecommunications Facilities)
- Article: 10.000 Section: 10.40 (Special Permit)
- Article: 6409 Section: Federal Middle Class Tax Relief Act (Spectrum Act)

Original
Signature(s):



 (Petitioner (s) / Owner)
 Adam F. Braillard of Prince Lobel Tye LLP
 for T-Mobile Northeast LLC

 (Print Name)

Address: _____
 Tel. No. 617-456-8153
 E-Mail Address: abraillard@princelobel.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.

I/We 678 Mass. Ave LLC
(OWNER)

Address: 825 Beacon St, Suite 1, Newton Centre, MA 02459

State that I/We own the property located at 678 Massachusetts Ave, Cambridge, MA 02139 which is the subject of this zoning application.

The record title of this property is in the name of 678 Mass. Ave. LLC

*Pursuant to a deed of duly recorded in the date 11/23/1998, Middlesex South County Registry of Deeds at Book 155, Page 457; or Middlesex Registry District of Land Court, Certificate No. _____
Book _____ Page _____

[Signature] Vice President
SIGNATURE BY LAND OWNER OR AUTHORIZED TRUSTEE, OFFICER OR AGENT*

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

Commonwealth of Massachusetts, County of Middlesex

The above-name Robert Walsh personally appeared before me, this 9th of October, 2023, and made oath that the above statement is true.

[Signature] Notary

My commission expires 5/10/2030 (Notary Seal).

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



November 8, 2023

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

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

Property Address: 678 Massachusetts Avenue, Cambridge, MA 02139
Assessor's Map 105, Lot 74 (the "**Property**")

Applicant: T-Mobile Northeast, LLC ("**Applicant**")

Dear Honorable Members of the Board of Zoning Appeals:

This firm represents T-Mobile Northeast LLC in connection with an application for a special permit from the City of Cambridge Board of Zoning Appeals (the "**Board**"), to modify an existing wireless communications facility on the Property. The Property is located in the Business B ("**BB**") zoning district and the Central Square Overlay District (the "**CSQ**"). To the extent that the Board determines that the requirements of Article 4 Section 4.32G.1 of the City of Cambridge Zoning Ordinance (the "**Ordinance**") apply, the use of the Property for a wireless telecommunications facility is permitted by special permit from the Board¹. The Applicant's proposal satisfies the requirements for the grant of a special permit pursuant to Section 10-43 of the Ordinance.

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

¹ Pursuant to Section 6409(a) of the Spectrum Act, state and local governments "may not deny and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station." As such, the Applicant submits that they need not apply for a special permit from the board. To the extent that this Board determines that the Applicants' proposed wireless facility must comply with special permit requirements set forth in Section 10-43 of the Ordinance, the Applicants submit that they have complied with said requirements, without waiving the argument that such relief is not required.

The Applicant seeks to modify its existing wireless communications facility by removing and replacing the existing panel antennas, the Remote Radio Heads, (“**RRHs**”), and ancillary equipment located on the rooftop of the building (the “**Building**”) on the Property, collectively the “**Proposed Facility**”. The Applicant’s Proposed Facility is described in more detail below and is shown on the Plans attached hereto and incorporated herein by reference (the “**Plans**”).

I. Background

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

II. Project Description

The Applicant’s existing Facility consists of twelve (12) panel antennas, four (4) tower mounted antennas (“**TMA**s”), eight (8) remote radio units (“**RRU**s”), and ancillary equipment attached to the existing rooftop and penthouse of the Building. The Applicant proposes to modify its existing Facility as follows:

- Remove the 12 panel antennas;
- Remove the 6 TMA’s;
- Remove the 8 RRU’s;
- Replace the 12 panel antennas with 8 new like kind panel antennas;
- Replace the 6 TMA and 8 RRU’s with 8 new like kind RRU’s;
- Replace 1 existing equipment cabinet with 1 new similar size equipment cabinet and a battery cabinet; and
- Replace and update other ancillary equipment.

All of the replaced antennas that are façade mounted on the penthouse will be painted to

match the color of the Building. Consequently, the visual change to the Applicant's existing facility will be de minimus. Further, the Applicant's proposal is consistent with the previous decisions of the Board for this facility, the earliest of which is dated November 9, 2001, (Case No.8356) (the "**Decisions**").

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

III. Legal Arguments

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

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

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

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

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

requested are necessary to remedy a gap in reliable service coverage within T-Mobile's existing network infrastructure.

T-Mobile investigated alternative sites in and around the defined geographic area within which its engineers determined that a facility must be located to fill the gap in service coverage and to function effectively within its network of existing and planned facilities. This is an existing location that is being upgraded with new technology to provide the necessary coverage for the subject area of the City of Cambridge. Therefore, the Proposed Facility in the BB District is necessary to close any potential coverage gap and reliable services that may occur. Consequently, T-Mobile is unable to close a gap in its wireless network without obtaining the requested relief under Section 6409 of the Spectrum act or a Special Permit to modify its existing wireless facility in the BB District.

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

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

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

The Applicant's Proposed Facility will have a minimal visual impact on the existing facility and Building. The Proposed Facility will be installed on the rooftop of the Building, and within faux vent pipes, and in conformity with the Decisions.

As stated above, federal law now preempts many of the permit applications requirements that the Ordinance sets forth. To the extent that this Board determines that the Applicants' proposed wireless facility must comply with the Wireless Communications provisions set forth in Section 4.32(g), footnote 49 of the Ordinance, the Applicants submit that they have complied

with said requirements, without waiving the argument that such relief is not required.

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

This is not applicable to the Proposed Facility. The Applicant proposes to install its facility within the BB District.

B. The Applicant complies with the Special Permit Criteria set forth in Section 10-43 of the Ordinance²:

1. The requirements of the Ordinance can be met:

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

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

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

² Pursuant to Section 6409(a) of the Spectrum Act, state and local governments "may not deny and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station." As such, the Applicant submits that they need not apply for a special permit from the board. To the extent that this Board determines that the Applicants' proposed wireless facility must comply with special permit requirements set forth in Section 10-43 of the Ordinance, the Applicants submit that they have complied with said requirements, without waiving the argument that such relief is not required.

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

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

As described above and illustrated on the attached photograph simulations, the modification of the existing facility will produce a minimal change in the appearance of the Building. The modification of the existing facility will blend with the existing characteristics of the Building and the surrounding neighborhood. Moreover, the proposed installation will not generate any traffic, smoke, dust, heat, glare, discharge of noxious substances, nor will it pollute waterways or groundwater. Conversely, the surrounding properties and general public will benefit from the potential to enjoy improved wireless communication.

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

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

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

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

5. For other reasons, the proposed installation will not impair the integrity of the district or adjoining district or otherwise derogate from the intent

or purpose of this ordinance for the following reasons:

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

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

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

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

IV. Summary

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

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

Sincerely,

A handwritten signature in black ink, appearing to be 'AB', written over a horizontal line.

Adam F. Braillard
Direct: 617-456-8153
Email: abraillard@princelobel.com

Date: November 8, 2023

BZA Application Form

DIMENSIONAL INFORMATION

Applicant: T-Mobile Northeast for 678 Mass. Ave. LLC
Location: 678 Massachusetts Ave., Cambridge, MA
Phone: 617-456-8153

Present Use/Occupancy: Telecommunications and Business
Zone: Business B Zone
Requested Use/Occupancy: Telecommunications

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

The Proposed installation involves a modification of an existing Wireless Telecommunications Facility.

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'.



T-MOBILE NORTHEAST LLC

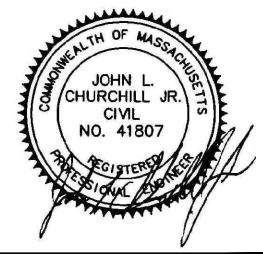
T-MOBILE SITE #: 4DE7303A
 SITE NAME: B0303/678 MASSACHUSETTS AVENUE
 678 MASSACHUSETTS AVENUE
 CAMBRIDGE, MA 02139

PROJECT: ANCHOR
 CONFIGURATION: 4SEC-67E5D998E

T-Mobile
 T-MOBILE NORTHEAST, LLC
 15 COMMERCE WAY, SUITE B
 NORTON, MA 02766
 OFFICE: (508) 286-2700
 FAX: (508) 286-2893

J. LEE ASSOCIATES
 J. LEE ASSOCIATES
 420 NORTHBORO ROAD CENTRAL
 MARLBOROUGH, MA 01752

JC ENGINEERING, INC.
 2854 CRANBERRY HIGHWAY
 EAST WAREHAM, MA 02538
 OFFICE: (508) 273-0377
 FAX: (508) 273-0367



APPROVALS
 LANDLORD _____
 LEASING _____
 R.F. _____
 ZONING _____
 CONSTRUCTION _____
 A/E _____

PROJECT NO: 4DE7303A
 DRAWN BY: MKV
 CHECKED BY: JC

SUBMITTALS

3	10/16/23	FOR REVIEW
2	8/16/23	FOR REVIEW
1	8/11/23	FOR REVIEW
0	5/08/23	FOR REVIEW

THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE NORTHEAST, LLC. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

4DE7303A
 B0303/678 MASS AVE
 678 MASSACHUSETTS AVENUE
 CAMBRIDGE, MA 02139

SHEET TITLE
 TITLE SHEET

SHEET NUMBER
 T-1
 JCE: 4335

GENERAL NOTES

- THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
- THE ARCHITECT/ENGINEER HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
- THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE LESSEE REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
- THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.
- THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS / CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S / VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
- THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
- THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY CONSTRUCTION CONTROL SURVEYS, ESTABLISHING AND MAINTAINING ALL LINES AND GRADES REQUIRED TO CONSTRUCT ALL IMPROVEMENTS AS SHOWN HEREIN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
- THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
- THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
- THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
- THE CONTRACTOR SHALL NOTIFY THE LESSEE REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE LESSEE REPRESENTATIVE.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
- ALL UNDERGROUND UTILITY INFORMATION WAS DETERMINED FROM SURFACE INVESTIGATIONS AND EXISTING PLANS OF RECORD. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO ANY SITE WORK. CALL THE FOLLOWING FOR ALL PRE-CONSTRUCTION NOTIFICATION 72-HOURS PRIOR TO ANY EXCAVATION ACTIVITY: DIG SAFE SYSTEM (MA, ME, NH, RI, VT): 1-888-344-7233 CALL BEFORE YOU DIG
- PER FCC MANDATE, ENHANCED EMERGENCY (E911) SERVICE IS REQUIRED TO MEET NATIONWIDE STANDARDS FOR WIRELESS COMMUNICATIONS SYSTEMS. PROJECT OWNER IMPLEMENTATION REQUIRES DEPLOYMENT OF EQUIPMENT AND ANTENNAS GENERALLY DEPICTED ON THIS PLAN, ATTACHED TO OR MOUNTED IN CLOSE PROXIMITY TO THE BTS RADIO CABINETS. THE PROJECT OWNER RESERVES THE RIGHT TO MAKE REASONABLE MODIFICATIONS TO E911 EQUIPMENT AND LOCATION AS TECHNOLOGY EVOLVES TO MEET REQUIRED SPECIFICATIONS.

VICINITY MAP



DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE T-MOBILE NORTHEAST LLC, REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE NORTHEAST LLC. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

SHEET INDEX

SHT. NO.	DESCRIPTION	REV. NO.
T-1	TITLE SHEET	3
GN-1	GENERAL NOTES	3
A-1	ROOF PLAN	3
A-2	ELEVATIONS	3
A-3	ANTENNA MOUNTING DETAILS	3
S-1	STRUCTURAL DETAILS	3
E-1	GROUNDING NOTES & DETAILS	3

PROJECT SUMMARY

SITE NUMBER: 4DE7303A
 SITE NAME: B0303/678 MASSACHUSETTS AVENUE
 SITE ADDRESS: 678 MASSACHUSETTS AVENUE
 CAMBRIDGE, MA 02139
 ZONING DISTRICT: BB-CSQ
 MAP/LOT NO.: 105/74
 CONSTRUCTION TYPE: ROOF TOP
 PROPERTY OWNER: 678 MASS AVE, LLC
 825 BEACON STREET, SUITE 1
 NEWTON CENTER, MA 02159
 APPLICANT, LESSEE/LICENSEE, PROJECT OWNER: T-MOBILE NORTHEAST LLC,
 15 COMMERCE WAY, SUITE B
 NORTON, MA 02766
 LATITUDE: 42° 21' 56" N, 42.365556 N
 LONGITUDE: 71° 06' 16" W, 71.104444 W

THIS DOCUMENT WAS DEVELOPED TO REFLECT A SPECIFIC SITE AND ITS SITE CONDITIONS AND IS NOT TO BE USED FOR ANOTHER SITE OR WHEN OTHER CONDITIONS PERTAIN. REUSE OF THIS DOCUMENT IS AT THE SOLE RISK OF THE USER.

A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.

GENERAL NOTES:

- FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
 CONTRACTOR – T-MOBILE
 SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
 OWNER – T-MOBILE
 OEM – ORIGINAL EQUIPMENT MANUFACTURER
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
- ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL, STATE AND FEDERAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIAL IN ACCORDANCE WITH THE MANUFACTURER’S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR.
- SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER, T1 CABLES AND GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR AND/OR LANDLORD PRIOR TO CONSTRUCTION.
- THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT THE SUBCONTRACTORS EXPENSE TO THE SATISFACTION OF THE OWNER.
- SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY.
- SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION AND RETURN DISTURBED AREAS TO ORIGINAL CONDITIONS.
- THE SUBCONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- SUBCONTRACTOR SHALL NOTIFY JC ENGINEERING INC. 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING TRENCHES, SEALING ROOF AND WALL PENETRATIONS AND POST DOWNS, FINISHING NEW WALLS OR FINAL ELECTRICAL CONNECTIONS FOR ELECTRICAL REVIEW.
- CONSTRUCTION SHALL COMPLY WITH ALL T-MOBILE STANDARDS AND SPECIFICATIONS.
- SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- THE EXISTING CELL SITES ARE IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
- IF THE EXISTING CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

SITE WORK GENERAL NOTES:

- THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION.
- ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
- IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
- NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
- THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED, OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF THE ENGINEERING, OWNER AND/OR LOCAL UTILITIES.
- THE AREAS OF THE OWNERS 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 AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
- SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE T-MOBILE SPECIFICATION FOR SITE SIGNAGE.

CONCRETE AND REINFORCED STEEL NOTES:

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185, AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
 - ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (4000PSI) MAY BE USED. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 381 CODE REQUIREMENTS.
 - REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
 - THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
 CONCRETE CAST AGAINST EARTH.....3 IN.
 CONCRETE EXPOSED TO EARTH OR WEATHER:
 #6 AND LARGER.....2 IN.
 #5 AND SMALLER & WWF.....1½ IN.
 CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
 SLAB AND WALL.....½ IN.
 BEAMS AND COLUMNS.....1½ IN.
 - A CHAMFER ¾" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
 - INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHORS SHALL BE PER MANUFACTURER’S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL, OR ROD SHALL CONFORM TO THE MANUFACTURER’S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER’S MAXIMUM ALLOWABLE LOADS. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY SIMPSON OR APPROVED EQUAL.
 - CONCRETE CYLINDER TIES ARE NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS (IBC1905.6.2.3) IN THAT EVEN THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER;
 (A) RESULTS OF CONCRETE CYLINDER TEST PERFORMED AT THE SUPPLIER’S PLANT.
 (B) CERTIFICATION OF MINIMUM COMPRESSIVE STRENGTH FOR THE CONCRETE GRADE SUPPLIED, FOR GREATER THAN 50 CUBIC YARDS THE GC SHALL PERFORM THE CONCRETE CYLINDER TEST.
 - AS AN ALTERNATIVE TO ITEM 7, TEST CYLINDER SHALL BE TAKEN INITIALLY AND THEREAFTER FOR EVERY 50 YARDS OF CONCRETE FROM EACH DIFFERENT BATCH PLANT.
 - EQUIPMENT SHALL NOT BE PLACED ON NEW PADS FOR SEVEN DAYS AFTER PAD IS POURED, UNLESS IT IS VERIFIED BY CYLINDER TESTS THAT COMPRESSIVE STRENGTH HAS BEEN ATTAINED.
- STRUCTURAL STEEL NOTES:**
- ALL STEEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS AND T-MOBILE SPECIFICATIONS UNLESS OTHERWISE NOTED. STRUCTURAL STEEL SHALL BE ASTM-A-36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS. STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".
 - ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION. PAINTED SURFACES SHALL BE TOUCHED UP.
 - BOLTED CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS (¾" Ø) AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE. ALL BOLTS SHALL BE GALVANIZED OR STAINLESS STEEL.
 - NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE ¾" Ø ASTM A 307 BOLTS (GALV) UNLESS NOTED OTHERWISE.
 - CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEEL.
 - ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

SOIL COMPACTION NOTES FOR SLAB ON GRADE:

- EXCAVATE AS REQUIRED TO REMOVE VEGETATION AND TOPSOIL TO EXPOSE NATURAL SUBGRADE AND PLACE CRUSHED STONE AS REQUIRED.
- COMPACTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEOTECHNICAL TECHNICIAN OR ENGINEER IS ACCEPTABLE.
- AS AN ALTERNATE TO INSPECTION AND WRITTEN CERTIFICATION, THE "UNDISTURBED SOIL" BASE SHALL BE COMPACTED WITH "COMPACTION EQUIPMENT", LISTED BELOW, TO AT LEAST 90% MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM D 1557 METHOD C.
- COMPACTED SUBBASE SHALL BE UNIFORM AND LEVELED. PROVIDE 6" MINIMUM CRUSHED STONE OR GRAVEL COMPACTED IN 3" LIFTS ABOVE COMPACTED SOIL. GRAVEL SHALL BE NATURAL OR CRUSHED WITH 100% PASSING #1 SIEVE.
- AS AN ALTERNATE TO ITEMS 2 AND 3, THE SUBGRADE SOILS WITH 5 PASSES OR A MEDIUM SIZED VIBRATORY PLATE COMPACTOR (SUCH AS BOMAG BPR 30/38) OR HAND-OPERATED SINGLE DRUM VIBRATORY ROLLER (SUCH AS BOMAG BW 55E). AND SOFT AREAS THAT ARE ENCOUNTERED SHOULD BE REMOVED AND REPLACED WITH A WELL-GRADED GRANULAR FILL AND COMPACTED AS STATED ABOVE.

COMPACTION EQUIPMENT:

- HAND OPERATED DOUBLE DRUM, VIBRATORY ROLLER, VIBRATORY PLATE COMPACTOR, OR JUMPING JACK COMPACTOR.

CONSTRUCTION NOTES:

- FIELD VERIFICATION: SUBCONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, T-MOBILE ANTENNA PLATFORM LOCATION AND UTILITY TRENCHWORK.
- COORDINATION OF WORK: SUBCONTRACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH CONTRACTOR.
- CABLE LADDER RACK: SUBCONTRACTOR SHALL FURNISH AND INSTALL CABLE LADDER RACK, CABLE TRAY AND/OR ICE BRIDGE, AND CONDUIT AS REQUIRED TO SUPPORT CABLES TO THE NEW BTS LOCATION.

ELECTRICAL INSTALLATION NOTES:

- WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
- SUBCONTRACTOR SHALL MODIFY OR INSTALL CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLEING TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO CONTRACTOR FOR APPROVAL.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.
- CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
- EACH END OF EVERY POWER, GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH THE NEC AND OSHA, AND MATCH INSTALLATION REQUIREMENTS.
- POWER PHASE CONDUCTORS (I.E., HOTS) SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC AND OSHA.
- ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
- PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
- ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, CLASS-B STRANDED COPPER CABLE RATED FOR 90° C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #2 AWG SOLID TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WED AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
- ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY HARGER (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75° C (90° C IF AVAILABLE).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
- NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
- ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT) ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
- RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
- CABINETS, BOXES AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
- WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.
- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
- CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.



T-MOBILE NORTHEAST, LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766

OFFICE: (508) 286-2700
FAX: (508) 286-2893

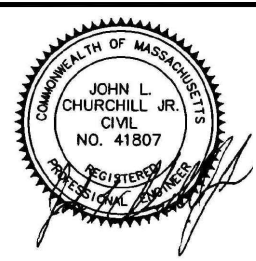


J. LEE ASSOCIATES
420 NORTHBORO ROAD CENTRAL
MARLBOROUGH, MA 01752

JC ENGINEERING, INC.

2854 CRANBERRY HIGHWAY
EAST WAREHAM, MA 02538

OFFICE: (508) 273-0377
FAX: (508) 273-0367



APPROVALS

LANDLORD _____

LEASING _____

R.F. _____

ZONING _____

CONSTRUCTION _____

A/E _____

PROJECT NO:	4DE7303A
DRAWN BY:	MKV
CHECKED BY:	JC

SUBMITTALS

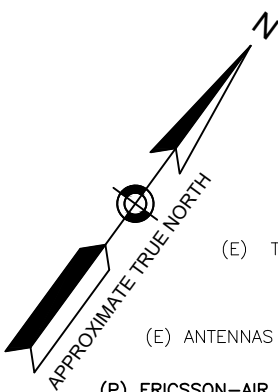
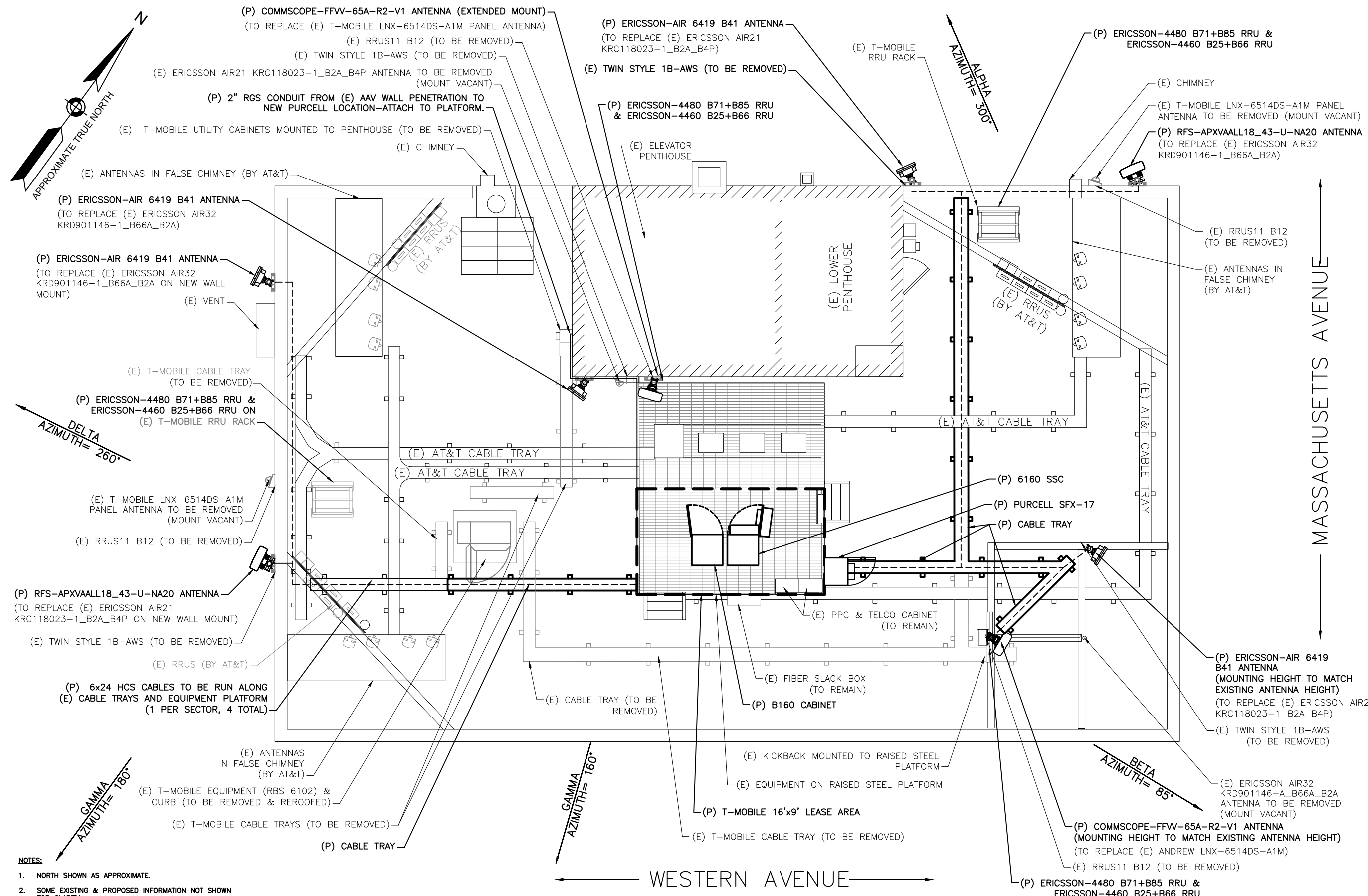
3/10/16/23	FOR REVIEW	
2/8/16/23	FOR REVIEW	
1/8/11/23	FOR REVIEW	
0/5/08/23	FOR REVIEW	

THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE NORTHEAST, LLC. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

4DE7303A
B0303/678 MASS AVE
678 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02139

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-1
JCE: 4335



DELTA
AZIMUTH= 260°

GAMMA
AZIMUTH= 180°

GAMMA
AZIMUTH= 160°

ALPHA
AZIMUTH= 300°

BETA
AZIMUTH= 85°

MASSACHUSETTS AVENUE

WESTERN AVENUE

- NOTES:**
1. NORTH SHOWN AS APPROXIMATE.
 2. SOME EXISTING & PROPOSED INFORMATION NOT SHOWN FOR CLARITY.
 3. INSPECT MOUNTS FOR DAMAGE OR DECAY AND REPLACE AS NEEDED.
 4. ALL PROPOSED ANTENNAS AND HARDWARE TO BE PAINTED TO MATCH EXISTING BUILDING.
 5. REMOVE ALL (E) UNUSED COAX CABLE
 6. REMOVED (E) 3x6 HYBRID AND (E) 6x12 HYBRID

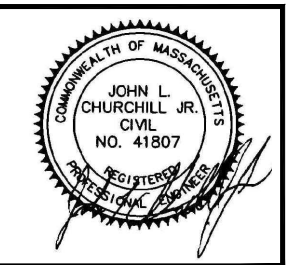
ROOF PLAN
22x34 SCALE: 1/4"=1'-0"
11x17 SCALE: 1/8"=1'-0"

1
A-1

Mobile
T-MOBILE NORTHEAST, LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
OFFICE: (508) 286-2700
FAX: (508) 286-2893

J. LEE ASSOCIATES
J. LEE ASSOCIATES
420 NORTHBORO ROAD CENTRAL
MARLBOROUGH, MA 01752

JC ENGINEERING, INC.
2854 CRANBERRY HIGHWAY
EAST WAREHAM, MA 02538
OFFICE: (508) 273-0377
FAX: (508) 273-0367



APPROVALS

LANDLORD _____

LEASING _____

R.F. _____

ZONING _____

CONSTRUCTION _____

A/E _____

PROJECT NO: 4DE7303A

DRAWN BY: MKV

CHECKED BY: JC

SUBMITTALS

3	10/16/23	FOR REVIEW
2	8/16/23	FOR REVIEW
1	8/11/23	FOR REVIEW
0	5/08/23	FOR REVIEW

THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE NORTHEAST, LLC. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

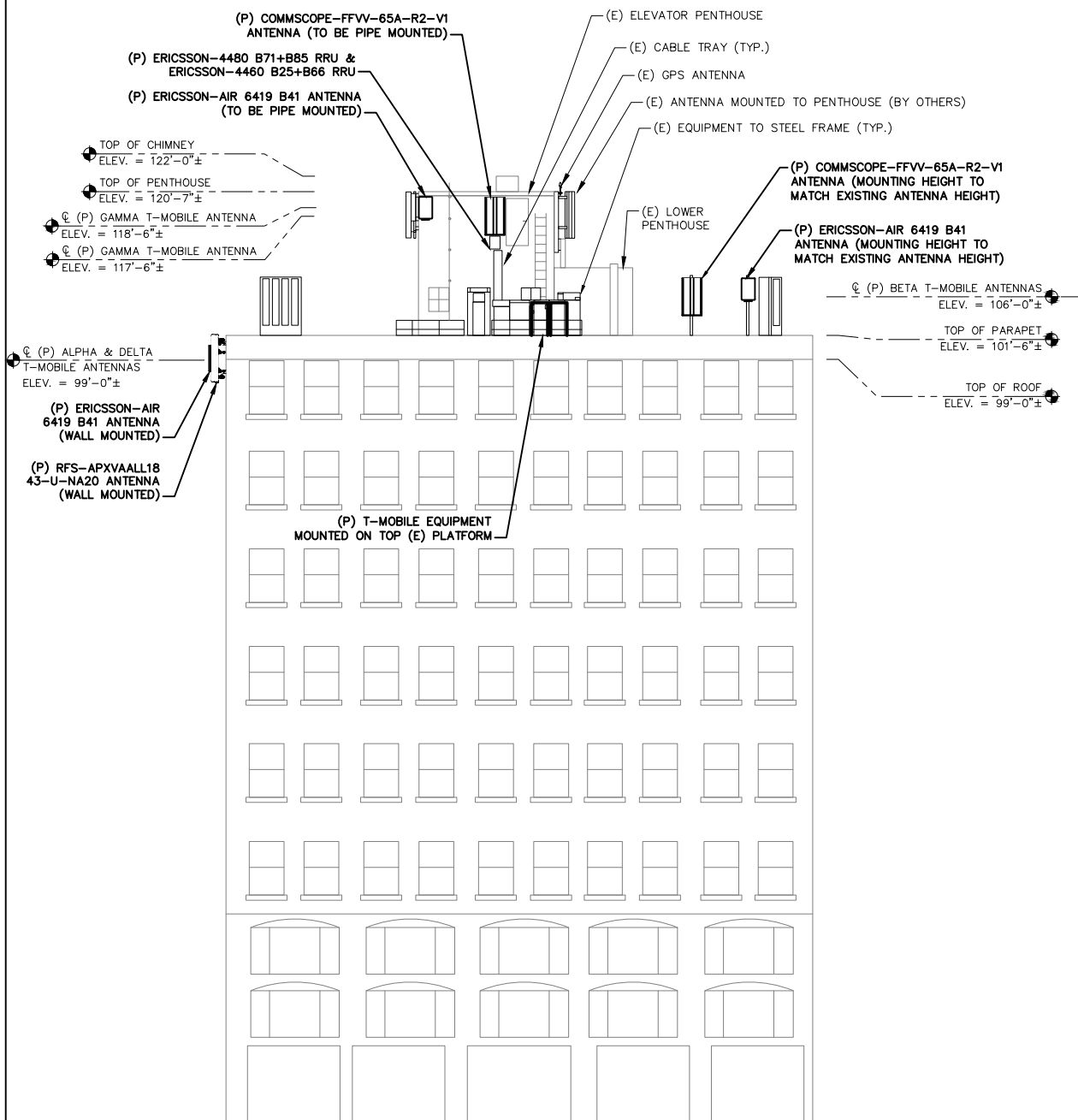
4DE7303A
B0303/678 MASS AVE
678 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02139

SHEET TITLE
ROOF PLAN

SHEET NUMBER
A-1
JCE: 4335

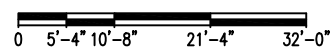
* ALPHA SECTOR, CONSISTING OF AIR 6419 & RFS-APXVAALL18 ANTENNAS NOT VISIBLE IN VIEW SHOWN.

* PAINT ANTENNAS TO MATCH EXISTING FACADE (ALPHA, GAMMA, & DELTA SECTORS)



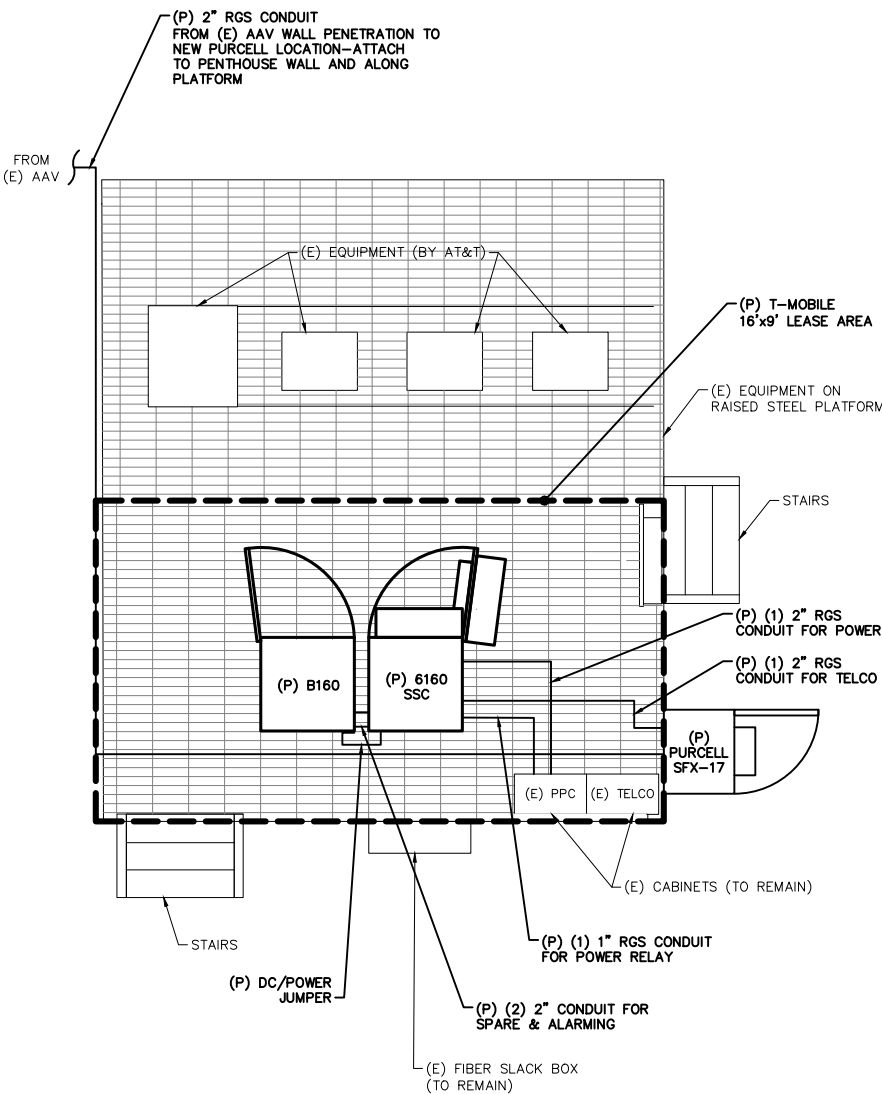
NORTH ELEVATION

22x34 SCALE: 3/32"=1'-0"
11x17 SCALE: 3/64"=1'-0"



NOTES:

- ELEVATIONS SHOWN AS APPROXIMATE.
- SOME EXISTING & PROPOSED INFORMATION NOT SHOWN FOR CLARITY.
- INSPECT MOUNTS FOR DAMAGE OR DECAY AND REPLACE AS NEEDED.
- ALL PROPOSED ANTENNAS AND HARDWARE TO BE PAINTED TO MATCH EXISTING BUILDING.



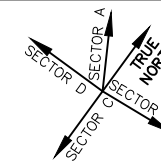
EQUIPMENT PLAN

22x34 SCALE: 3/8"=1'-0"
11x17 SCALE: 3/16"=1'-0"



ANTENNA ORIENTATION KEY

NOTE:
REFER TO
FINAL RFDS
FOR AZIMUTH
ORIENTATION



EQUIPMENT SCHEDULE

CURRENT EQUIPMENT

- FOUR (4) ANDREW LNX-6514DS-A1M ANTENNAS
- FOUR (4) ERICSSON AIR32 KR901146-1_B66A_B2A ANTENNAS
- FOUR (4) ERICSSON AIR21 KRC118023-1_B2A_B4P ANTENNAS
- FOUR (4) AWS TWIN TMA'S
- THREE (3) 3x6 HCS
- ONE (1) 6x12 HCS
- EIGHT (8) DC CABLES
- EIGHT (8) 7/8 COAX CABLES
- ONE (1) ERICSSON RBS 6102 EQUIPMENT CABINET
- FOUR (4) ERICSSON RUS-01 B4
- FOUR (4) ERICSSON RRUS-11 B12

EQUIPMENT TO BE REMOVED

- FOUR (4) ANDREW LNX-6514DS-A1M ANTENNAS
- FOUR (4) ERICSSON AIR21 KRC118023-1_B2A_B4P ANTENNAS
- FOUR (4) ERICSSON AIR32 KDR901146-1_B66A_B2A
- FOUR (4) ERICSSON RRUS-11 B12
- EIGHT (8) DC CABLES
- EIGHT (8) 7/8 COAX CABLES
- FOUR (4) AWS TWIN TMA'S
- ONE (1) ERICSSON RBS 6102 EQUIPMENT CABINET
- THREE (3) 3x6 HCS
- ONE (1) 6x12 HCS

EQUIPMENT TO BE ADDED

- FOUR (4) ERICSSON AIR6419 B41 ANTENNA
- TWO (2) RFS APXVAARR18_43-U-NA20 ANTENNAS
- TWO (2) COMMScope FFV-65A-R2-V1
- FOUR (4) ERICSSON 4480 B71+B85 RRU'S
- FOUR (4) ERICSSON 4460 B25+B66 RRU'S
- FOUR (4) 6x24 HCS
- ONE (1) ERICSSON RBS 6160 EQUIPMENT CABINET
- ONE (1) ERICSSON B160 BATTERY CABINET

FINAL EQUIPMENT CONFIGURATION

- FOUR (4) ERICSSON AIR6419 B41 ANTENNA
- TWO (2) RFS APXVAARR18_43-U-NA20 ANTENNAS
- TWO (2) COMMScope FFV-65A-R2-V1
- FOUR (4) 6x24 HCS
- FOUR (4) ERICSSON 4480 B71+B85 RRU'S
- FOUR (4) ERICSSON 4460 B25+B66 RRU'S
- ONE (1) ERICSSON RBS 6160 EQUIPMENT CABINET
- ONE (1) ERICSSON B160 BATTERY CABINET

RF CONFIG. - 4SEC-67D5997DB

SCOPE OF WORK

- REMOVE EXISTING (4) ERICSSON AIR32 KDR901146-1_B66A_B2A ANTENNAS
- REMOVE EXISTING (4) ANDREW LNX-6514DS-A1M ANTENNAS
- REMOVE EXISTING (4) ERICSSON AIR21 PANEL ANTENNA
- REMOVE EXISTING (4) RRUS-11 B12
- REMOVE EXISTING (4) RUS-01 B4
- INSTALL PROPOSED (2) RFS-APXVAARR18_43-U-NA20 PANEL ANTENNAS
- INSTALL PROPOSED (2) COMMScope FFV-65A-R2-VA ANTENNAS
- INSTALL PROPOSED (4) 4480 B71+B85 RRU'S
- INSTALL PROPOSED (4) 4460 B25+B66 RRU'S
- ADD ERICSSON RBS 6160 EQUIPMENT CABINET
- ADD ERICSSON B160 BATTERY CABINET
- ADD PROPOSED (4) HCS CABLES

Mobile

T-MOBILE NORTHEAST, LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766

OFFICE: (508) 286-2700
FAX: (508) 286-2893

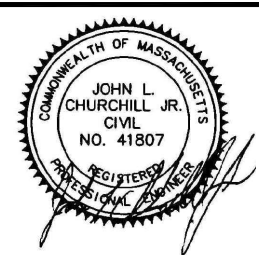


J. LEE ASSOCIATES
420 NORTHBORO ROAD CENTRAL
MARLBOROUGH, MA 01752

JC ENGINEERING, INC.

2854 CRANBERRY HIGHWAY
EAST WAREHAM, MA 02538

OFFICE: (508) 273-0377
FAX: (508) 273-0367



APPROVALS

LANDLORD _____
LEASING _____
R.F. _____
ZONING _____
CONSTRUCTION _____
A/E _____

PROJECT NO: 4DE7303A

DRAWN BY: MKV

CHECKED BY: JC

SUBMITTALS

3	10/16/23	FOR REVIEW
2	8/16/23	FOR REVIEW
1	8/11/23	FOR REVIEW
0	5/08/23	FOR REVIEW

THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE NORTHEAST, LLC. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

4DE7303A
B0303/678 MASS AVE
678 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02139

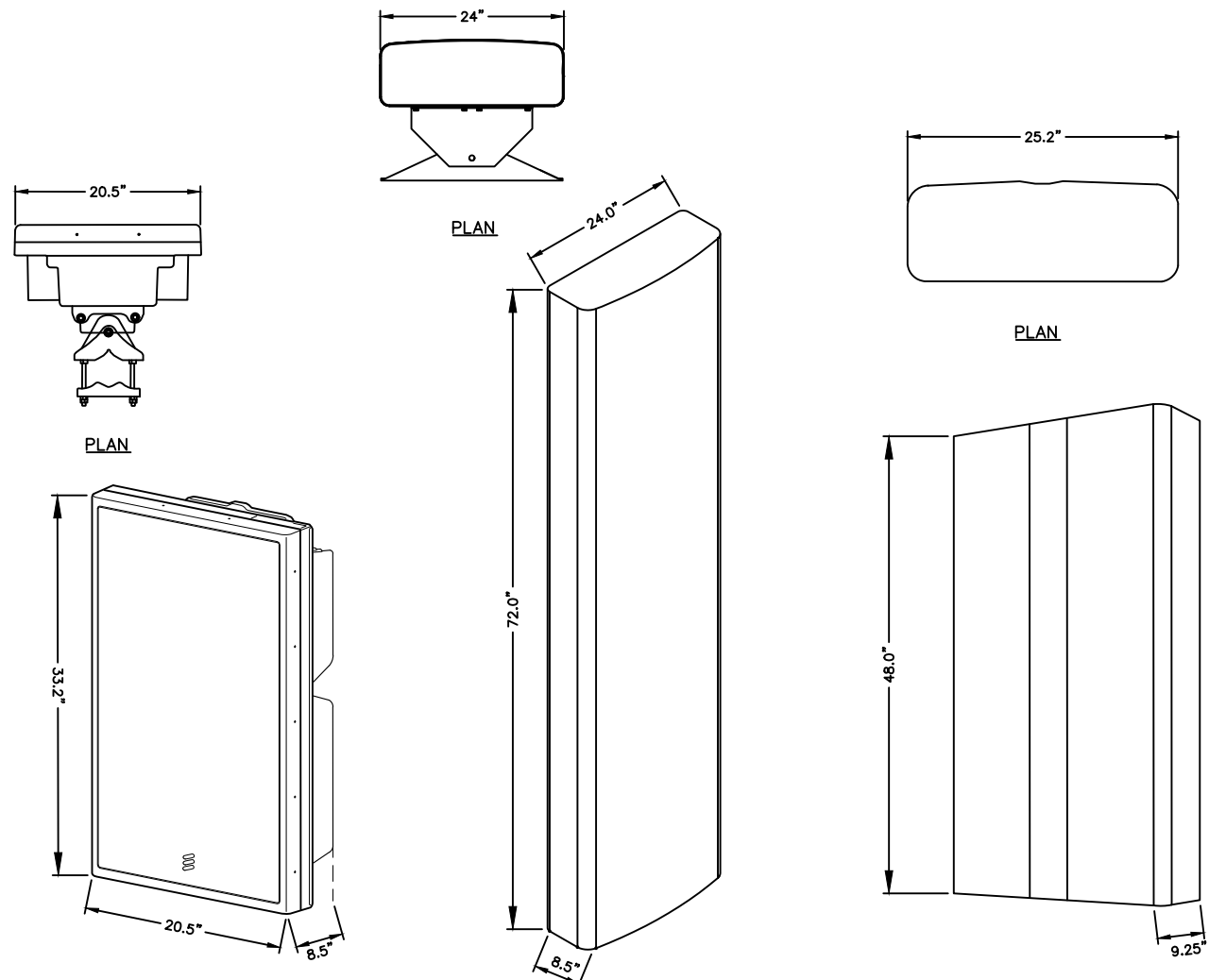
SHEET TITLE

ELEVATIONS

SHEET NUMBER

A-2

JCE: 4335

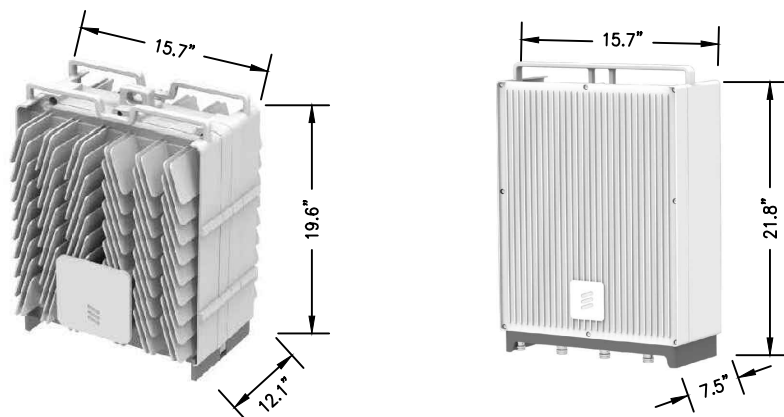


ERICSSON AIR 6419 B41
 DIMENSIONS: 33.2"H x 20.5"W x 8.5"D
 WEIGHT: 102 LBS
 1/SECTOR, 4 TOTAL

RFS APXVAARR18 43-U-NA20 PANEL ANTENNA
 DIMENSIONS: 72.0"H x 24.0"W x 8.5"D
 WEIGHT: 106 LBS
 1/SECTOR (ALPHA & DELTA), 2 TOTAL

COMMSCOPE FFV-65A-R2-V1
 DIMENSIONS: 48.2"H x 25.2"W x 9.3"D
 WEIGHT: 73 LBS
 1/SECTOR (BETA & GAMMA), 2 TOTAL

PROPOSED ANTENNA DETAILS 1
 SCALE: N.T.S. A-4

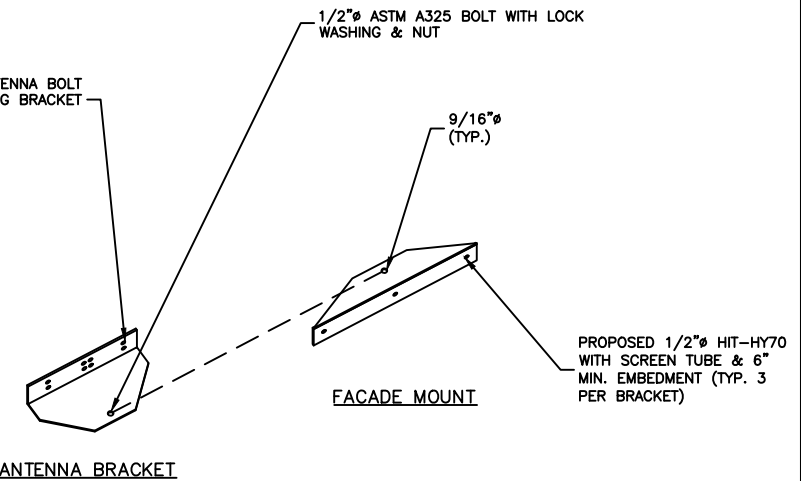


ERICSSON 4460 B25+B66 RRU
 DIMENSIONS: 19.6"H x 15.7"W x 12.1"D
 WEIGHT: 109 LBS
 1/SECTOR, 4 TOTAL

ERICSSON 4480 B71+85A RRU
 DIMENSIONS: 21.8"H x 15.7"W x 7.5"D
 WEIGHT: 84 LBS
 1/SECTOR, 4 TOTAL

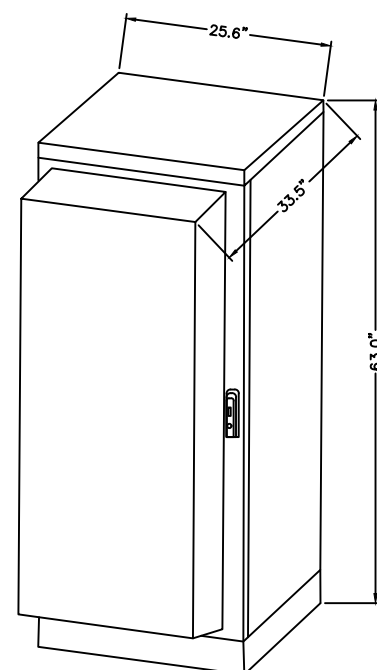
RRUS DETAILS 3
 SCALE: N.T.S. A-4

VERIFY BACK OF RFS ANTENNA BOLT LAYOUT BEFORE FABRICATING BRACKET



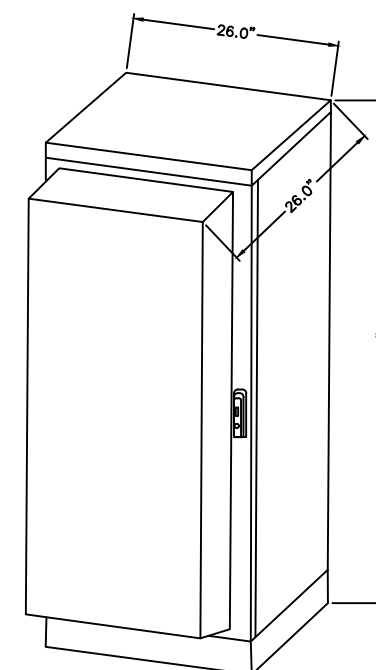
- NOTES:**
1. VERIFY VERTICAL CENTER TO CENTER MEASUREMENT WITH ANTENNA MANUFACTURER.
 2. VERIFY CUSTOM MOUNTING KIT MATCHES ANTENNA BOLT LAYOUT PRIOR TO FABRICATING THE UPPER MOUNT
 3. CONTRACTOR TO GROUT, SEAL AND WEATHERPROOF ALL DRILLED HOLES & PENETRATIONS. REPAIR ANY DAMAGED WALLS AS REQUIRED.
 4. ALL T-MOBILE ANTENNAS AND MOUNTS SHALL BE PAINTED TO MATCH. CONTRACTOR SHALL CONFIRM COLORS WITH CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
 5. CONTRACTOR TO PROVIDE & INSTALL 1/2" HIT-HY-70 ADHESIVE ANCHOR WITH SCREENTUBE, 6" MIN. EMBEDMENT INTO WALL FOR MANSORNY OR 1/2" HIT-HY-200 ADHESIVE ANCHOR WITH 4-1/2" MIN EMBEDMENT INTO CONCRETE. FIELD VERIFY WALL CONSTRUCTION TYPE.
 6. IF CONDITIONS DIFFER FROM THOSE SHOWN, CONTRACTOR TO NOTIFY C.M. AND ENGINEER

RFS CUSTOM BRACKET AND FACADE MOUNT 2
 SCALE: N.T.S. A-3



6160 ODE CABINET 4
 SCALE: N.T.S. A-4

MANUFACTURER: ERICSSON
 DIMENSIONS (HxWxD): 63.0"x25.6"x33.5"
 WEIGHT: 320 LBS. (W/ EQUIPMENT: 605 LBS)



B160 BATTERY CABINET 5
 SCALE: N.T.S. A-4

MANUFACTURER: ERICSSON
 DIMENSIONS (HxWxD): 63.0"x26.0"x26.0"
 WEIGHT: 295 LBS. (W/ STRINGS: 1883 LBS)

T-Mobile
 T-MOBILE NORTHEAST, LLC
 15 COMMERCE WAY, SUITE B
 NORTON, MA 02766
 OFFICE: (508) 286-2700
 FAX: (508) 286-2893

J. LEE ASSOCIATES
 J. LEE ASSOCIATES
 420 NORTHBORO ROAD CENTRAL
 MARLBOROUGH, MA 01752

JC ENGINEERING, INC.
 2854 CRANBERRY HIGHWAY
 EAST WAREHAM, MA 02538
 OFFICE: (508) 273-0377
 FAX: (508) 273-0367



APPROVALS

LANDLORD _____

LEASING _____

R.F. _____

ZONING _____

CONSTRUCTION _____

A/E _____

PROJECT NO: 4DE7303A

DRAWN BY: MKV

CHECKED BY: JC

SUBMITTALS

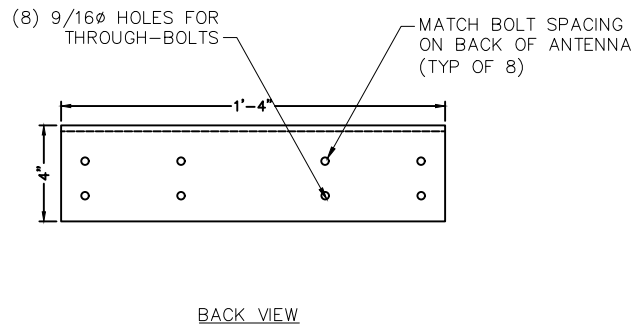
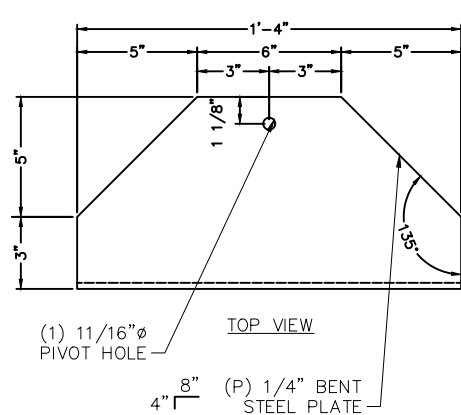
3	10/16/23	FOR REVIEW
2	8/16/23	FOR REVIEW
1	8/11/23	FOR REVIEW
0	5/08/23	FOR REVIEW

THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE NORTHEAST, LLC. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

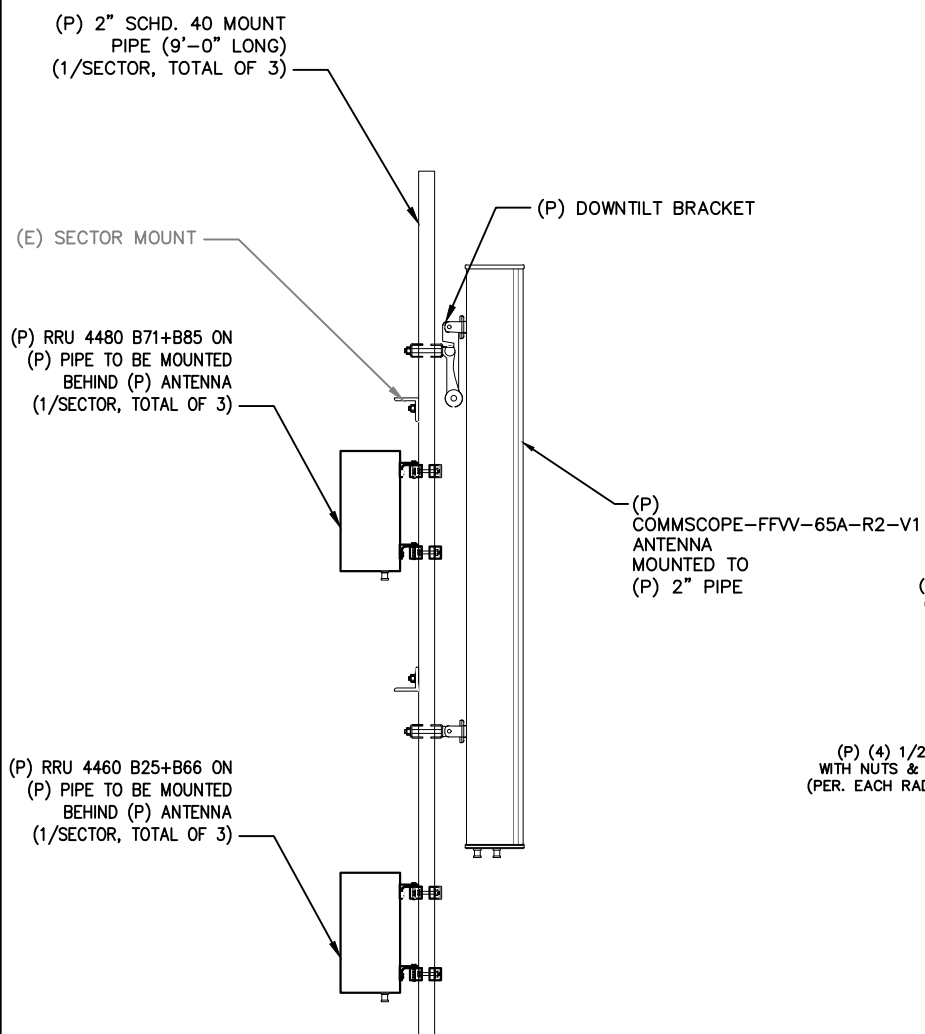
4DE7303A
 B0303/678 MASS AVE
 678 MASSACHUSETTS AVENUE
 CAMBRIDGE, MA 02139

SHEET TITLE
ANTENNA MOUNTING DETAILS

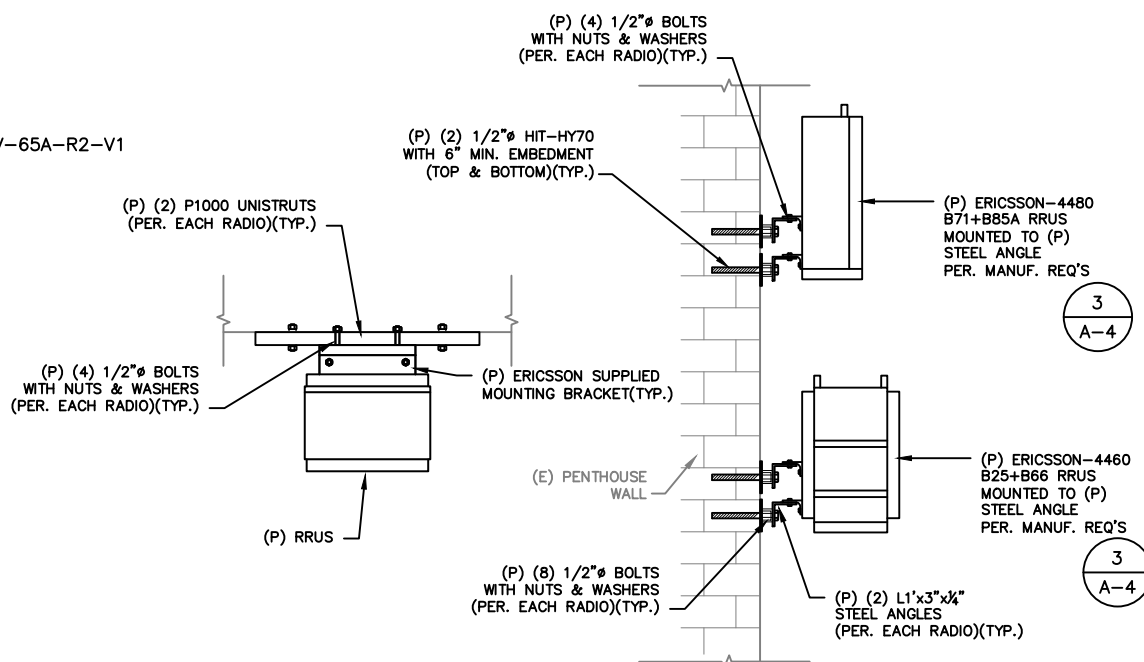
SHEET NUMBER
A-3
 JCE: 4335



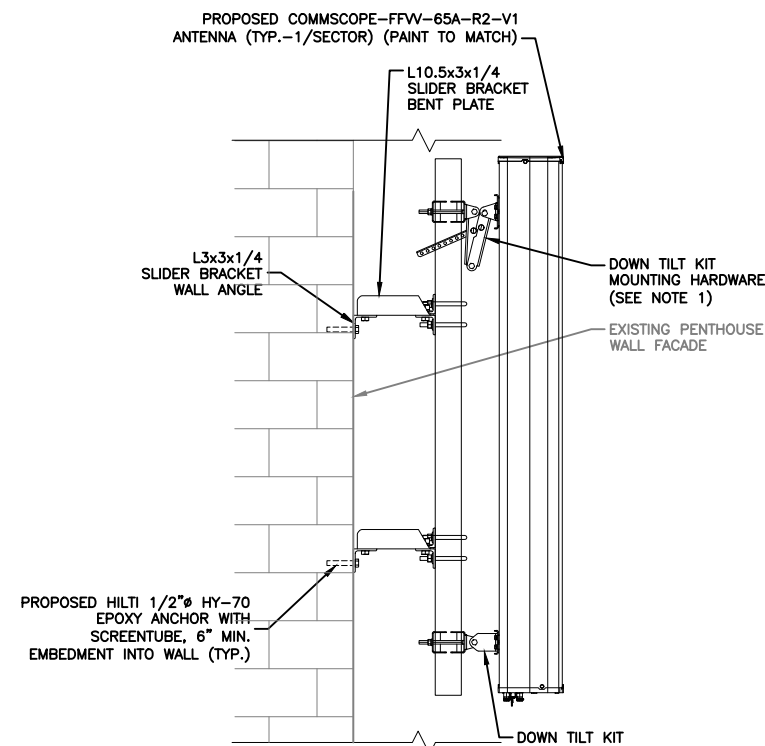
ANTENNA BRACKET DETAIL 1
 22x34 SCALE: 3"=1'-0"
 11x17 SCALE: 1-1/2"=1'-0"
 (ALPHA & DELTA SECTORS ONLY)



2 ANTENNA AND RRU MOUNT DETAIL
 S-1 22x34 SCALE: 1" = 1'-0"
 11x17 SCALE: 1/2" = 1'-0" (BETA SECTOR ONLY)



3 RRU MOUNT DETAIL
 S-1 22x34 SCALE: 1" = 1'-0"
 11x17 SCALE: 1/2" = 1'-0" (GAMMA SECTOR ONLY)



NOTES:
 1. PRIME AND PAINT ALL MOUNTING BRACKETS AND ANTENNAS TO MATCH (E) PENTHOUSE BRICK AND MORTAR LINES.
 2. CONTRACTOR TO VERIFY WALL TYPE CONSTRUCTION PRIOR TO INSTALATION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES

4 ANTENNA MOUNT DETAIL
 S-1 NTS (GAMMA SECTOR ONLY)

Mobile

T-MOBILE NORTHEAST, LLC
 15 COMMERCE WAY, SUITE B
 NORTON, MA 02766

OFFICE: (508) 286-2700
 FAX: (508) 286-2893



J. LEE ASSOCIATES
 420 NORTHBORO ROAD CENTRAL
 MARLBOROUGH, MA 01752

JC ENGINEERING, INC.

2854 CRANBERRY HIGHWAY
 EAST WAREHAM, MA 02538

OFFICE: (508) 273-0377
 FAX: (508) 273-0367



APPROVALS

LANDLORD _____
 LEASING _____
 R.F. _____
 ZONING _____
 CONSTRUCTION _____
 A/E _____

PROJECT NO: 4DE7303A

DRAWN BY: MKV

CHECKED BY: JC

SUBMITTALS

3	10/16/23	FOR REVIEW
2	8/16/23	FOR REVIEW
1	8/11/23	FOR REVIEW
0	5/08/23	FOR REVIEW

THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE NORTHEAST, LLC. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

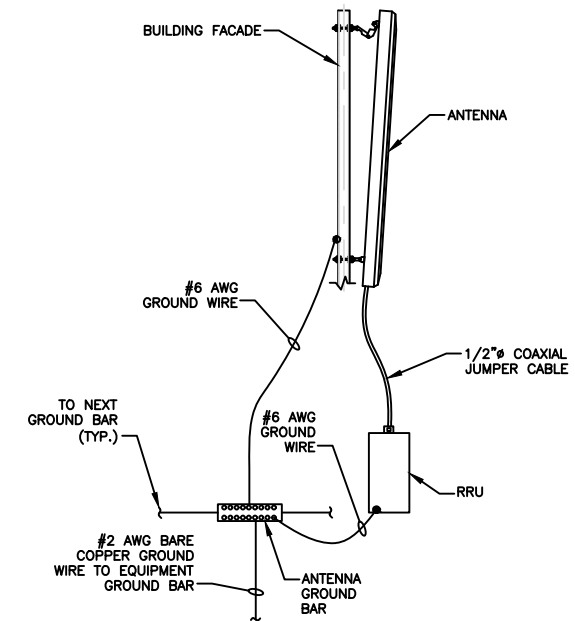
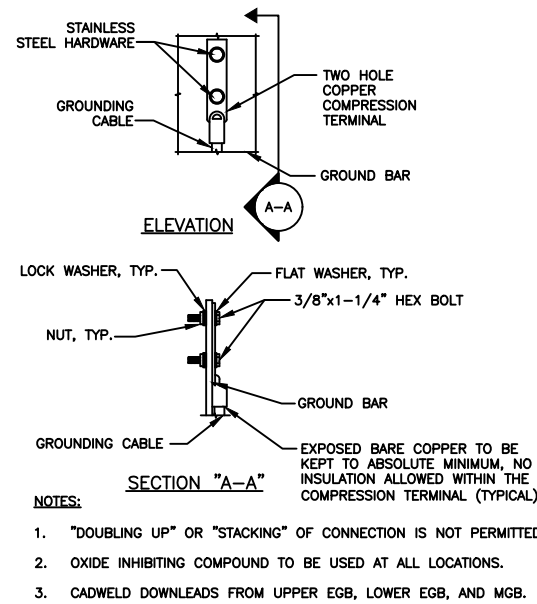
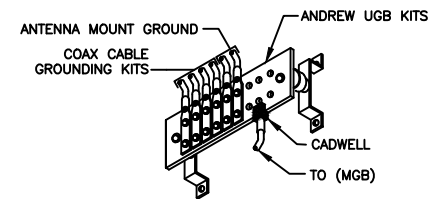
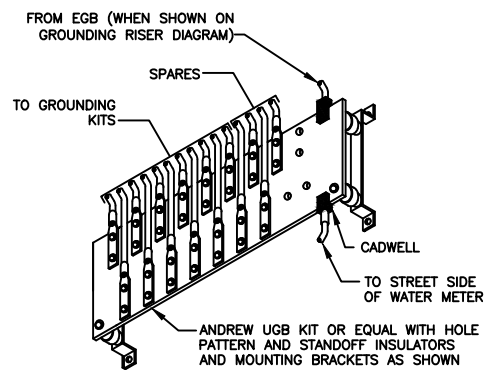
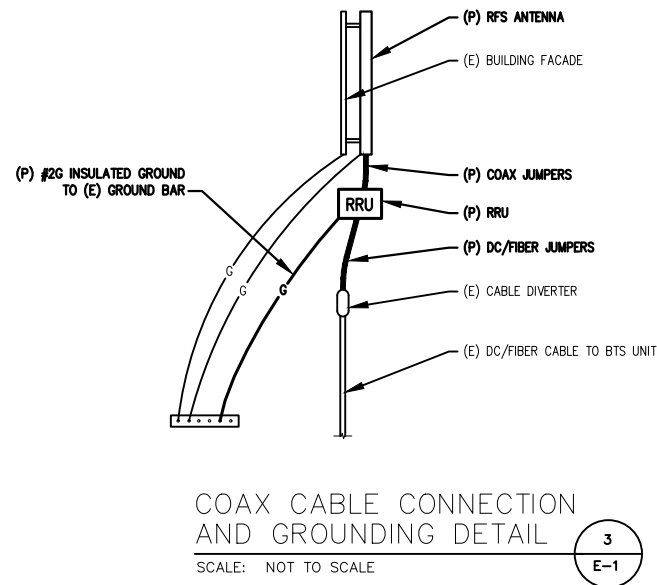
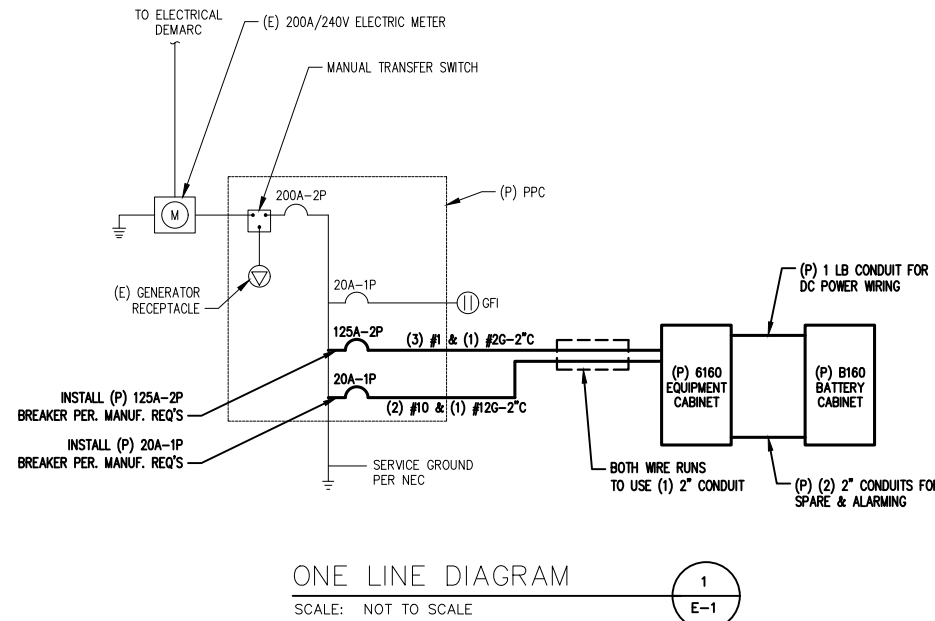
4DE7303A
 B0303/678 MASS AVE
 678 MASSACHUSETTS AVENUE
 CAMBRIDGE, MA 02139

SHEET TITLE
 STRUCTURAL DETAILS

SHEET NUMBER
 S-1
 JCE: 4335

ELECTRICAL & GROUNDING NOTES

- ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
- ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
- THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
- GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
- ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
- RIGID STEEL CONDUITS SHALL BE GROUNDED AT BOTH ENDS.
- ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THIN INSULATION.
- RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND LESSEE/LICENSEE CELL SITE PPC AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
- RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND LESSEE/LICENSEE CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
- ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
- GROUNDED SHALL COMPLY WITH NEC ART. 250.
- GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURER'S COAX CABLE GROUNDED KITS SUPPLIED BY LESSEE/LICENSEE.
- USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR GROUNDED (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDED AS INDICATED ON THE DRAWING.
- ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
- ROUTE GROUNDED CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDED LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF LESSEE/LICENSEE EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDED RING.
- CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
- APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
- BOND ANTENNA MOUNTING BRACKETS, COAXIAL CABLE GROUND KITS, AND ALMA TO EGB PLACED NEAR THE ANTENNA LOCATION.
- BOND ANTENNA EGBS AND MGB TO GROUND RING.
- TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMS MINIMUM RESISTANCE REQUIRED.
- BOND ANY METAL OBJECT WITHIN 7 FEET OF THE PROPOSED EQUIPMENT OR CABINET TO MASTER GROUND BAR.
- VERIFY PROPOSED SERVICE UPGRADE WITH LOCAL UTILITY COMPANY PRIOR TO CONSTRUCTION.



NOTE:
1. ALL ELECTRICAL WORK SHALL TO BE PERFORMED BY A LICENSED ELECTRICIAN, ADHERING TO THE N.E.C. AND LOCAL CODE REQUIREMENTS.

Mobile
T-MOBILE NORTHEAST, LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
OFFICE: (508) 286-2700
FAX: (508) 286-2893

J. LEE ASSOCIATES
J. LEE ASSOCIATES
420 NORTHBORO ROAD CENTRAL
MARLBOROUGH, MA 01752

JC ENGINEERING, INC.
2854 CRANBERRY HIGHWAY
EAST WAREHAM, MA 02538
OFFICE: (508) 273-0377
FAX: (508) 273-0367



APPROVALS

LANDLORD _____

LEASING _____

R.F. _____

ZONING _____

CONSTRUCTION _____

A/E _____

PROJECT NO: 4DE7303A
DRAWN BY: MKV
CHECKED BY: JC

SUBMITTALS

3/10/16/23	FOR REVIEW
2/8/16/23	FOR REVIEW
1/8/11/23	FOR REVIEW
0/5/08/23	FOR REVIEW

THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE NORTHEAST, LLC. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

4DE7303A
B0303/678 MASS AVE
678 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02139

SHEET TITLE
GROUNDING NOTES AND DETAILS

SHEET NUMBER
E-1
JCE: 4335

November 8, 2023

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

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

Property Address: 678 Massachusetts Avenue, Cambridge, MA 02139
Assessor's Map 105, Lot 74 (the "**Property**")

Applicant: T-Mobile Northeast, LLC ("**Applicant**")

Dear Honorable Members of the Board of Zoning Appeals:

This firm represents T-Mobile Northeast LLC in connection with an application for a special permit from the City of Cambridge Board of Zoning Appeals (the "**Board**"), to modify an existing wireless communications facility on the Property. The Property is located in the Business B ("**BB**") zoning district and the Central Square Overlay District (the "**CSQ**"). To the extent that the Board determines that the requirements of Article 4 Section 4.32G.1 of the City of Cambridge Zoning Ordinance (the "**Ordinance**") apply, the use of the Property for a wireless telecommunications facility is permitted by special permit from the Board¹. The Applicant's proposal satisfies the requirements for the grant of a special permit pursuant to Section 10-43 of the Ordinance.

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

¹ Pursuant to Section 6409(a) of the Spectrum Act, state and local governments "may not deny and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station." As such, the Applicant submits that they need not apply for a special permit from the board. To the extent that this Board determines that the Applicants' proposed wireless facility must comply with special permit requirements set forth in Section 10-43 of the Ordinance, the Applicants submit that they have complied with said requirements, without waiving the argument that such relief is not required.

The Applicant seeks to modify its existing wireless communications facility by removing and replacing the existing panel antennas, the Remote Radio Heads, (“**RRHs**”), and ancillary equipment located on the rooftop of the building (the “**Building**”) on the Property, collectively the “**Proposed Facility**”. The Applicant’s Proposed Facility is described in more detail below and is shown on the Plans attached hereto and incorporated herein by reference (the “**Plans**”).

I. Background

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

II. Project Description

The Applicant’s existing Facility consists of twelve (12) panel antennas, four (4) tower mounted antennas (“**TMA**s”), eight (8) remote radio units (“**RRU**s”), and ancillary equipment attached to the existing rooftop and penthouse of the Building. The Applicant proposes to modify its existing Facility as follows:

- Remove the 12 panel antennas;
- Remove the 6 TMA’s;
- Remove the 8 RRU’s;
- Replace the 12 panel antennas with 8 new like kind panel antennas;
- Replace the 6 TMA and 8 RRU’s with 8 new like kind RRU’s;
- Replace 1 existing equipment cabinet with 1 new similar size equipment cabinet and a battery cabinet; and
- Replace and update other ancillary equipment.

All of the replaced antennas that are façade mounted on the penthouse will be painted to

match the color of the Building. Consequently, the visual change to the Applicant's existing facility will be de minimus. Further, the Applicant's proposal is consistent with the previous decisions of the Board for this facility, the earliest of which is dated November 9, 2001, (Case No.8356) (the "**Decisions**").

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

III. Legal Arguments

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

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

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

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

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

requested are necessary to remedy a gap in reliable service coverage within T-Mobile's existing network infrastructure.

T-Mobile investigated alternative sites in and around the defined geographic area within which its engineers determined that a facility must be located to fill the gap in service coverage and to function effectively within its network of existing and planned facilities. This is an existing location that is being upgraded with new technology to provide the necessary coverage for the subject area of the City of Cambridge. Therefore, the Proposed Facility in the BB District is necessary to close any potential coverage gap and reliable services that may occur. Consequently, T-Mobile is unable to close a gap in its wireless network without obtaining the requested relief under Section 6409 of the Spectrum act or a Special Permit to modify its existing wireless facility in the BB District.

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

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

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

The Applicant's Proposed Facility will have a minimal visual impact on the existing facility and Building. The Proposed Facility will be installed on the rooftop of the Building, and within faux vent pipes, and in conformity with the Decisions.

As stated above, federal law now preempts many of the permit applications requirements that the Ordinance sets forth. To the extent that this Board determines that the Applicants' proposed wireless facility must comply with the Wireless Communications provisions set forth in Section 4.32(g), footnote 49 of the Ordinance, the Applicants submit that they have complied

with said requirements, without waiving the argument that such relief is not required.

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

This is not applicable to the Proposed Facility. The Applicant proposes to install its facility within the BB District.

B. The Applicant complies with the Special Permit Criteria set forth in Section 10-43 of the Ordinance²:

1. The requirements of the Ordinance can be met:

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

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

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

² Pursuant to Section 6409(a) of the Spectrum Act, state and local governments “may not deny and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station.” As such, the Applicant submits that they need not apply for a special permit from the board. To the extent that this Board determines that the Applicants’ proposed wireless facility must comply with special permit requirements set forth in Section 10-43 of the Ordinance, the Applicants submit that they have complied with said requirements, without waiving the argument that such relief is not required.

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

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

As described above and illustrated on the attached photograph simulations, the modification of the existing facility will produce a minimal change in the appearance of the Building. The modification of the existing facility will blend with the existing characteristics of the Building and the surrounding neighborhood. Moreover, the proposed installation will not generate any traffic, smoke, dust, heat, glare, discharge of noxious substances, nor will it pollute waterways or groundwater. Conversely, the surrounding properties and general public will benefit from the potential to enjoy improved wireless communication.

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

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

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

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

5. For other reasons, the proposed installation will not impair the integrity of the district or adjoining district or otherwise derogate from the intent

or purpose of this ordinance for the following reasons:

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

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

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

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

IV. Summary

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

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

Sincerely,

A handwritten signature in black ink, appearing to be "AB", written over a horizontal line.

Adam F. Braillard
Direct: 617-456-8153
Email: abraillard@princelobel.com

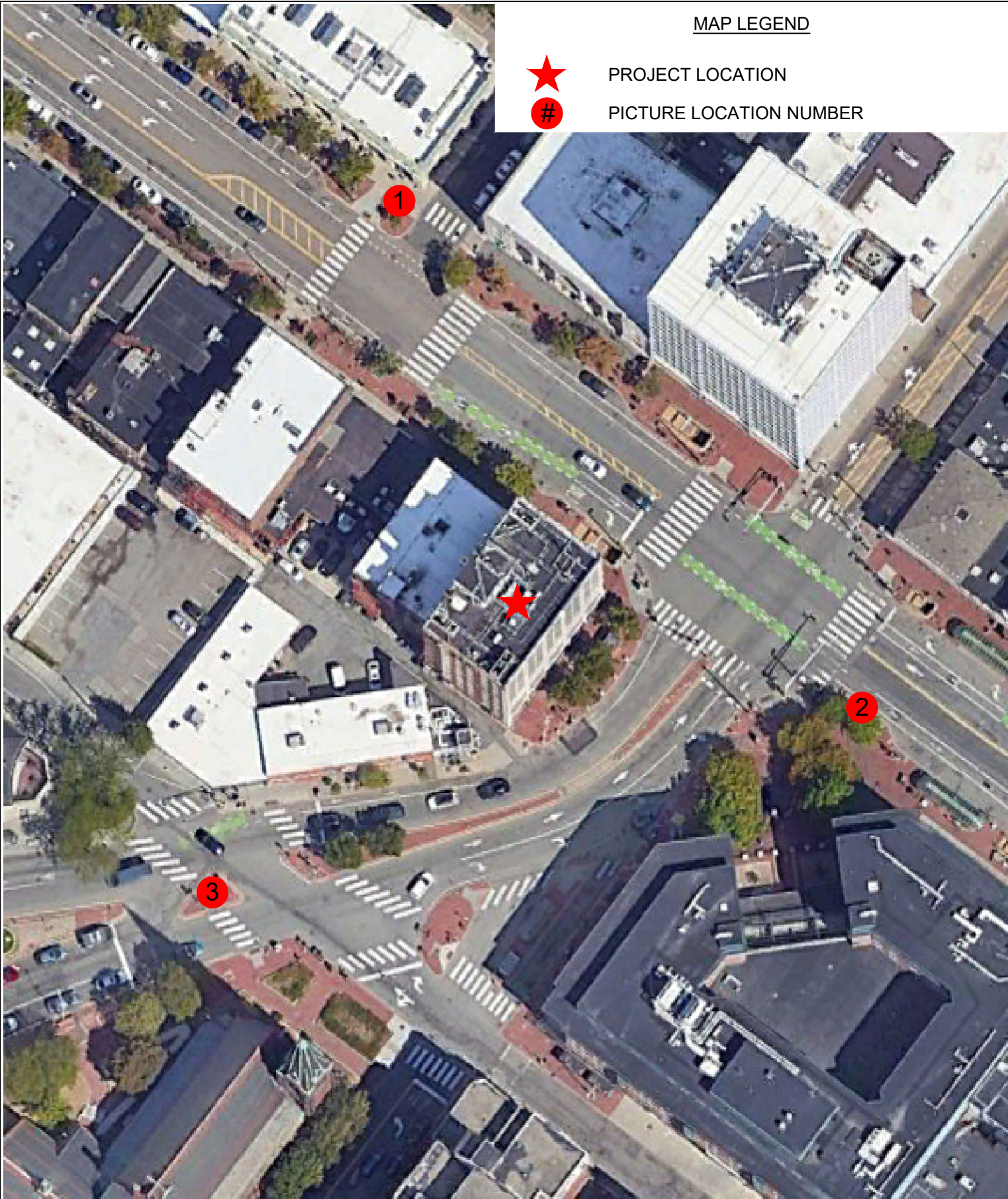
MAP LEGEND



PROJECT LOCATION



PICTURE LOCATION NUMBER



PREPARED FOR:



J. LEE ASSOCIATES
420 NORTHBORO ROAD CENTRAL
MARLBOROUGH, MA 01752

PREPARED BY:



JC ENGINEERING, INC.
2854 CRANBERRY HIGHWAY
EAST WAREHAM, MA 02538
OFFICE: (508) 273-0377
FAX: (508) 273-0367

SITE ID: 4DE7303A

SITE NAME: B0303 / 678 MASS AVE.

ADDRESS: 678 MASSACHUSETTS AVE
CAMBRIDGE, MA 02139

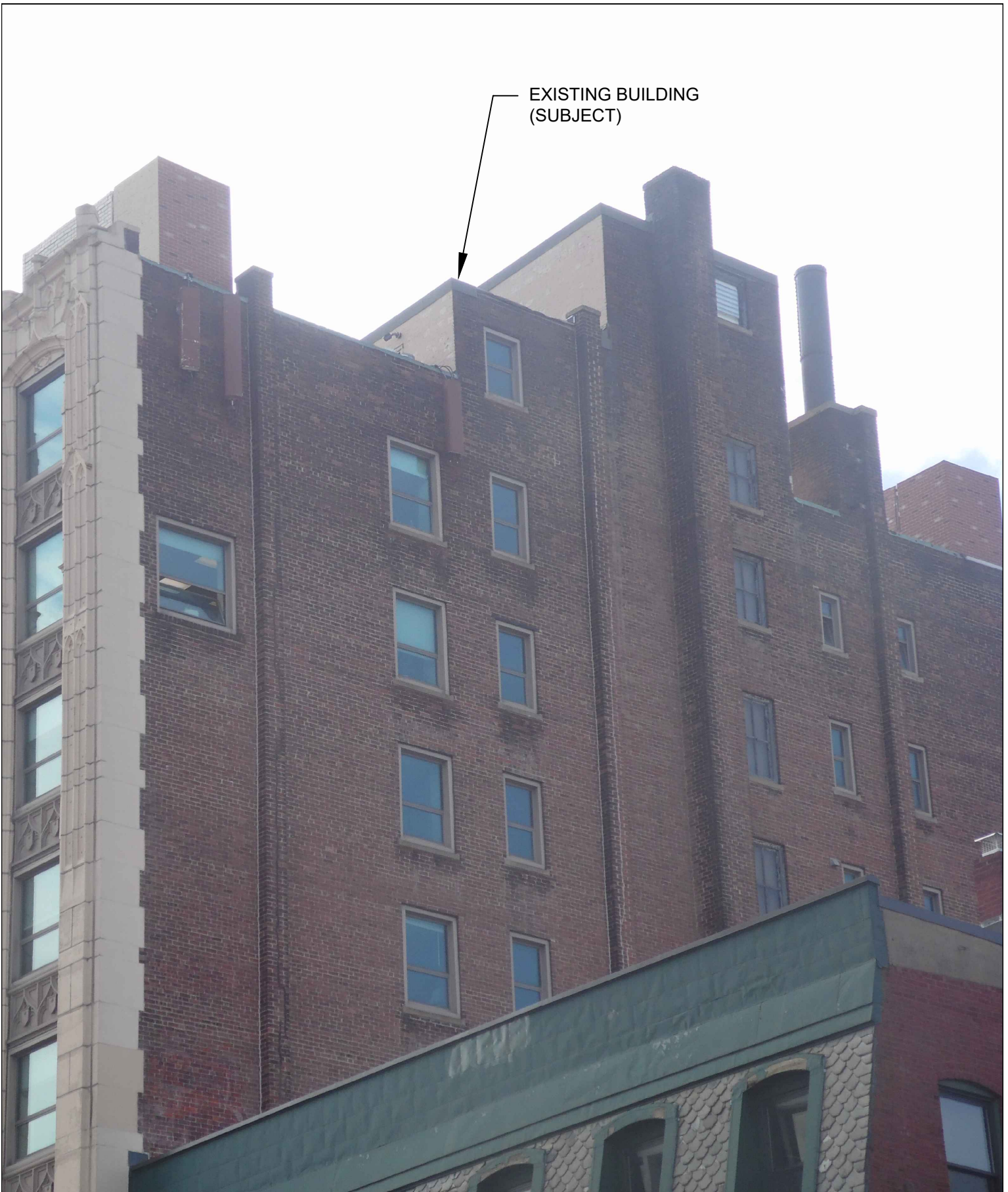
OVERVIEW OF
PHOTO LOCATIONS

PAGE: 1 / MAP



DATE: 11/1/2023

DRAWN BY: MKV

REV #: 1



EXISTING BUILDING
(SUBJECT)

<p>PREPARED FOR:</p>  <p>J. LEE ASSOCIATES J. LEE ASSOCIATES 420 NORTHBORO ROAD CENTRAL MARLBOROUGH, MA 01752</p>	<p>PREPARED BY:</p>  <p>JC ENGINEERING, INC. 2854 CRANBERRY HIGHWAY EAST WAREHAM, MA 02538 OFFICE: (508) 273-0377 FAX: (508) 273-0367</p>	<p>SITE ID: 4DE7303A SITE NAME: B0303 / 678 MASS AVE. ADDRESS: 678 MASSACHUSETTS AVE CAMBRIDGE, MA 02139</p>	<p>VIEW #1 EXISTING VIEW FROM THE NORTHWEST, AT INTERSECTION OF MASS AVE & TEMPLE ST</p>	<p>PAGE: 2 / EX-1 DATE: 11/1/2023 DRAWN BY: MKV REV #: 1</p>
---	---	--	--	--

PROPOSED RFS
ANTENNA TO BE
PAINTED TO MATCH (E)
BRICK FACADE

PROPOSED AIR
ANTENNA TO BE
PAINTED TO MATCH (E)
BRICK FACADE



PREPARED FOR:



J. LEE ASSOCIATES
420 NORTHBORO ROAD CENTRAL
MARLBOROUGH, MA 01752

PREPARED BY:



JC ENGINEERING, INC.
2854 CRANBERRY HIGHWAY
EAST WAREHAM, MA 02538
OFFICE: (508) 273-0377
FAX: (508) 273-0367

SITE ID: 4DE7303A

SITE NAME: B0303 / 678 MASS AVE.

ADDRESS: 678 MASSACHUSETTS AVE
CAMBRIDGE, MA 02139

VIEW #1

PROPOSED VIEW FROM THE
NORTHWEST, AT
INTERSECTION OF MASS AVE
& TEMPLE ST

PAGE: 3 / PR-1

DATE: 11/1/2023

DRAWN BY: MKV

REV #: 1



EXISTING BUILDING
(SUBJECT)

PREPARED FOR:



J. LEE ASSOCIATES
420 NORTHBORO ROAD CENTRAL
MARLBOROUGH, MA 01752

PREPARED BY:



JC ENGINEERING, INC.
2854 CRANBERRY HIGHWAY
EAST WAREHAM, MA 02538
OFFICE: (508) 273-0377
FAX: (508) 273-0367

SITE ID: 4DE7303A

SITE NAME: B0303 / 678 MASS AVE.

ADDRESS: 678 MASSACHUSETTS AVE
CAMBRIDGE, MA 02139

VIEW #2

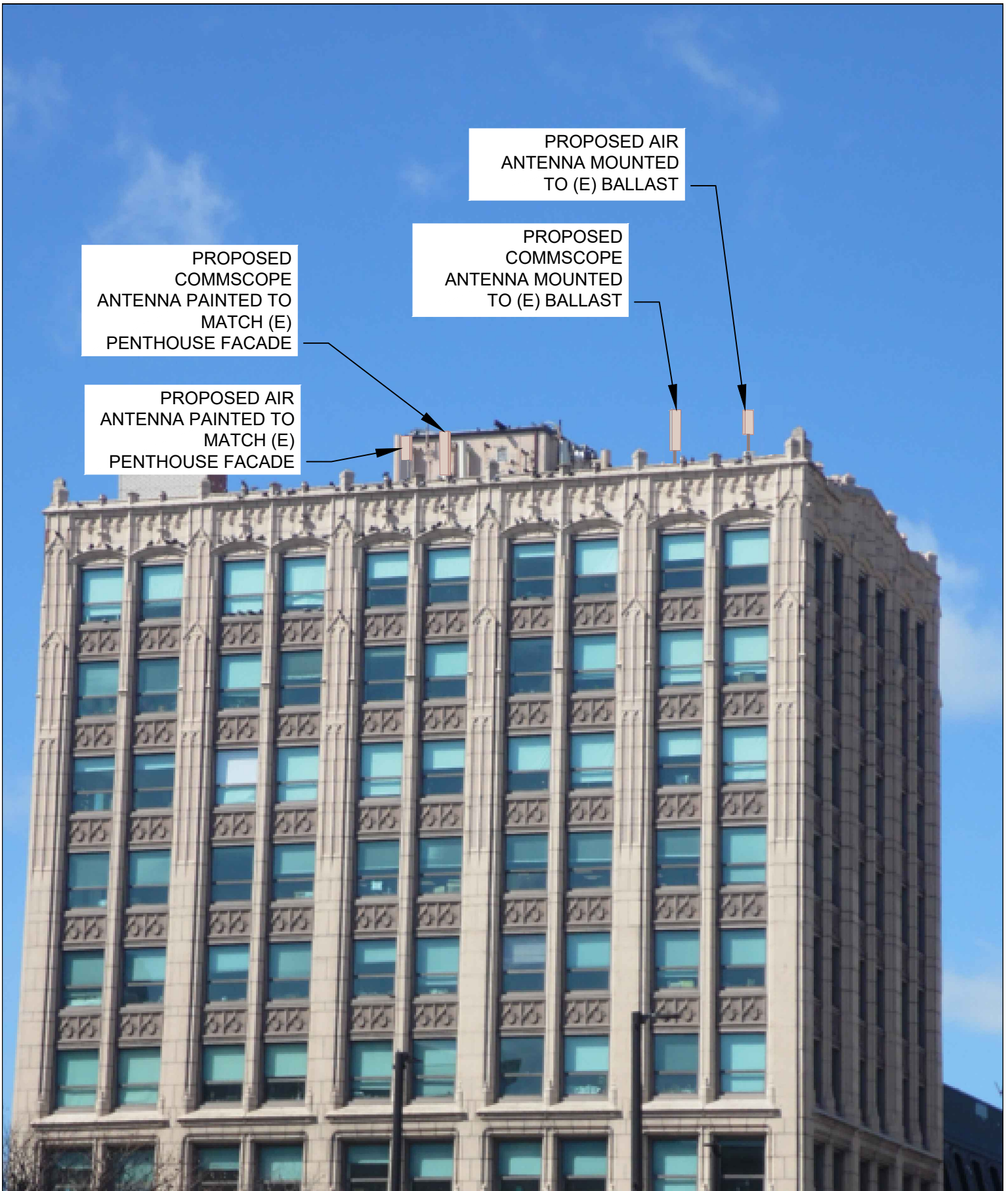
EXISTING VIEW FROM
THE SOUTHEAST, AT
INTERSECTION OF MASS AVE
& RIVER ST

PAGE: 4 / EX-2

DATE: 11/1/2023

DRAWN BY: MKV

REV #: 1





PROPOSED AIR
ANTENNA MOUNTED
TO (E) BALLAST

PROPOSED
COMMSCOPE
ANTENNA MOUNTED
TO (E) BALLAST

PROPOSED
COMMSCOPE
ANTENNA PAINTED TO
MATCH (E)
PENTHOUSE FACADE

PROPOSED AIR
ANTENNA PAINTED TO
MATCH (E)
PENTHOUSE FACADE

<p>PREPARED FOR:</p>  <p>J. LEE ASSOCIATES 420 NORTHBORO ROAD CENTRAL MARLBOROUGH, MA 01752</p>	<p>PREPARED BY:</p>  <p>JC ENGINEERING, INC. 2854 CRANBERRY HIGHWAY EAST WAREHAM, MA 02538 OFFICE: (508) 273-0377 FAX: (508) 273-0367</p>	<p>SITE ID: 4DE7303A SITE NAME: B0303 / 678 MASS AVE. ADDRESS: 678 MASSACHUSETTS AVE CAMBRIDGE, MA 02139</p>	<p>VIEW #2 PROPOSED VIEW FROM THE SOUTHEAST, AT INTERSECTION OF MASS AVE & RIVER ST</p>	<p>PAGE: 5 / PR-2 DATE: 11/1/2023 DRAWN BY: MKV REV #: 1</p>
--	--	--	---	--





EXISTING BUILDING
(SUBJECT)

<p>PREPARED FOR:</p>  <p>J. LEE ASSOCIATES 420 NORTHBORO ROAD CENTRAL MARLBOROUGH, MA 01752</p>	<p>PREPARED BY:</p>  <p>JC ENGINEERING, INC. 2854 CRANBERRY HIGHWAY EAST WAREHAM, MA 02538 OFFICE: (508) 273-0377 FAX: (508) 273-0367</p>	<p>SITE ID: 4DE7303A SITE NAME: B0303 / 678 MASS AVE. ADDRESS: 678 MASSACHUSETTS AVE CAMBRIDGE, MA 02139</p>	<p>VIEW #3 EXISTING VIEW FROM THE SOUTHWEST, AT ISLAND AT INTERSECTION OF WESTERN AVE & RIVER ST</p>	<p>PAGE: 6 / EX-3 DATE: 11/1/2023 DRAWN BY: MKV REV #: 1</p>
--	--	--	--	--



PROPOSED AIR
ANTENNA PAINTED TO
MATCH (E) BRICK
FACADE

PROPOSED RFS
ANTENNA PAINTED TO
MATCH (E) BRICK
FACADE

<p>PREPARED FOR:</p>  <p>J. LEE ASSOCIATES 420 NORTHBORO ROAD CENTRAL MARLBOROUGH, MA 01752</p>	<p>PREPARED BY:</p>  <p>JC ENGINEERING, INC. 2854 CRANBERRY HIGHWAY EAST WAREHAM, MA 02538 OFFICE: (508) 273-0377 FAX: (508) 273-0367</p>	<p>SITE ID: 4DE7303A SITE NAME: B0303 / 678 MASS AVE. ADDRESS: 678 MASSACHUSETTS AVE CAMBRIDGE, MA 02139</p>	<p>VIEW #3 PROPOSED VIEW FROM THE SOUTHWEST, AT ISLAND AT INTERSECTION OF WESTERN AVE & RIVER ST</p>	<p>PAGE: 7 / PR-3 DATE: 11/1/2023 DRAWN BY: MKV REV #: 1</p>
--	--	--	--	--

REFERENCE COPY

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: T-MOBILE LICENSE LLC

T-MOBILE LICENSE LLC
12920 SE 38TH STREET
BELLEVUE, WA 98006

Call Sign WQZL853	File Number
Radio Service WT - 600 MHz Band	

FCC Registration Number (FRN): 0001565449

Grant Date 06-14-2017	Effective Date 06-15-2017	Expiration Date 06-14-2029	Print Date
Market Number PEA007	Channel Block C	Sub-Market Designator 0	
Market Name Boston, MA			
1st Build-out Date 06-14-2023	2nd Build-out Date 06-14-2029	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.

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

Licensee Name: T-MOBILE LICENSE LLC

Call Sign: WQZL853

File Number:

Print Date:

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status
---------------	--------------------	--------------------------	------------------------------	---------------

Reference Copy

REFERENCE COPY

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: T-MOBILE LICENSE LLC

ATTN: FCC REGULATORY COMPLIANCE
T-MOBILE LICENSE LLC
12920 SE 38TH ST.
BELLEVUE, WA 98006

Table with Call Sign (WRAM889), File Number (0008585885), and Radio Service (CW - PCS Broadband).

FCC Registration Number (FRN): 0001565449

Table with columns: Grant Date, Effective Date, Expiration Date, Print Date, Market Number, Channel Block, Sub-Market Designator, Market Name, 1st Build-out Date, 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.

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

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.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS).

Licensee Name: T-MOBILE LICENSE LLC

Call Sign: WRAM889

File Number: 0008585885

Print Date: 05-31-2019

Spectrum Lease associated with this license. See Spectrum Leasing Arrangement Letter dated 07/27/2004 and File No. 0001765259.

Reference Copy

Licensee Name: T-MOBILE LICENSE LLC

Call Sign: WRAM889

File Number: 0008585885

Print Date: 05-31-2019

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status
---------------	--------------------	--------------------------	------------------------------	---------------

Reference Copy

REFERENCE COPY

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: T-MOBILE LICENSE LLC

ATTN: FCC REGULATORY COMPLIANCE
T-MOBILE LICENSE LLC
12920 S.E. 38TH STREET
BELLEVUE, WA 98006

Table with Call Sign (KNLH311), File Number (0007725350), and Radio Service (CW - PCS Broadband).

FCC Registration Number (FRN): 0001565449

Table with columns: Grant Date, Effective Date, Expiration Date, Print Date, Market Number, Channel Block, Sub-Market Designator, Market Name, 1st Build-out Date, 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.

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

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.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS).

Licensee Name: T-MOBILE LICENSE LLC

Call Sign: KNLH311

File Number: 0007725350

Print Date: 06-09-2017

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.

Preferred
Reference
Copy

Licensee Name: T-MOBILE LICENSE LLC

Call Sign: KNLH311

File Number: 0007725350

Print Date: 06-09-2017

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status
---------------	--------------------	--------------------------	------------------------------	---------------

Reference Copy

REFERENCE COPY

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: T-MOBILE LICENSE LLC

ATTN: FCC REGULATORY COMPLIANCE
T-MOBILE LICENSE LLC
12920 SE 38TH ST.
BELLEVUE, WA 98006

Call Sign WPOJ753	File Number 0008585870
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0001565449

Grant Date 05-30-2019	Effective Date 05-30-2019	Expiration Date 06-30-2029	Print Date 05-31-2019
Market Number BTA229	Channel Block C	Sub-Market Designator 3	
Market Name Kingsport-Johnston City, TN-Br			
1st Build-out Date 06-30-2004	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.

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

Conditions:

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

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

Licensee Name: T-MOBILE LICENSE LLC

Call Sign: WPOJ753

File Number: 0008585870

Print Date: 05-31-2019

700 MHz Relicensed Area Information:

Market	Market Name	Buildout Deadline	Buildout Notification	Status
---------------	--------------------	--------------------------	------------------------------	---------------

Reference Copy

B



City of Cambridge

MASSACHUSETTS

BOARD OF ZONING APPEAL

2001 08 23 - 9 A 11: 23

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

CITY OF CAMBRIDGE
MASSACHUSETTS

CASE NO: 8356

LOCATION: 678 Mass Avenue Business B Zone
Cambridge, MA

PETITIONER: Omnipoint Holdings, Inc - Thomas J. Fields

PETITION: Special Permit: To add a radio equipment cabinet and move an antenna to an existing telecommunication facility on the roof.

VIOLATIONS: Art. 4.000, Sec. 4.32.G.1 (Telecommunication Uses).

DATE OF PUBLIC NOTICE: August 3 & August 10, 2001

DATE OF PUBLIC HEARING: August 23, 2001

67241-70

MEMBERS OF THE BOARD:	THOMAS SIENIEWICZ - CHAIR	<input checked="" type="checkbox"/>
	ARCH HORST	<input checked="" type="checkbox"/>
	CHARLES PIERCE	<input checked="" type="checkbox"/>
	JOHN O'CONNELL	<input type="checkbox"/>
	SUSAN SPURLOCK	<input type="checkbox"/>
ASSOCIATE MEMBERS:	JENNIFER PINCK - VICE-CHAIR	<input checked="" type="checkbox"/>
	MARC TRUANT	<input type="checkbox"/>
	SUSAN CONNELLY	<input type="checkbox"/>
	REBECCA TEPPER	<input type="checkbox"/>
	KEEFE B. CLEMONS	<input checked="" type="checkbox"/>

Members of the Board of Zoning Appeal heard testimony and viewed materials submitted regarding the above request for relief from the requirements of the Cambridge Zoning Ordinance.

The Board is familiar with the location of the petitioner's property, the layout and other characteristics as well as the surrounding district.

MSD 12/06/01 02:03:27 708 32.25

Case No. 8356
Location: 678 Mass Ave.
Petitioner: Omnipoint Holdings, Inc. – Thomas J. Fields

On September 27, 2001, Petitioner Thomas J. Fields and RF engineer Joseph Maqui appeared before the Board of Zoning Appeal requesting a special permit to add a radio equipment cabinet and move an antenna at an existing telecommunication facility on the roof. The Petitioner submitted plans and photographs.

Mr. Fields stated that the special permit was requested to alter an existing telecom site by moving an antenna slightly and by installing another radio cabinet, which would be invisible from the street and would be the same size as the one existing on the roof. He stated that this was needed to meet peak load. Mr. Fields stated that the system would be properly licensed prior to the installation. He also stated that traffic would not increase at the site, that it would not adversely affect adjacent uses because this was a commercial district with plenty of existing telecom uses. He also stated that the antennas would be camouflaged with paint.

The Chair asked if anyone wished to be heard on the matter, no one indicated such.

After discussion, the Chair moved that the Board grant the special permit at 678 Mass. Ave. to provide and add radio equipment and a cabinet, to move an antenna, and adjust an existing telecommunications facility on the roof. The Chair moved further that the Board make the following findings:

1. that there would be no increase in traffic at the locus,
2. that the continued operation and development of adjacent uses in the district would not adversely be affected
3. that no nuisance or hazard to the public health will be promoted by this change by virtue of evidence which will be submitted to the file in the form of a letter from the State Department of Health, indicating a review of this particular site or a license for this particular site,
4. that the antenna is consistent with urban design intents in that the antenna will be camouflaged.

The Chair then moved that, based on the findings, the special permit be granted on the condition that:

1. the antenna be painted to be consistent with the facades behind them,
2. the applicant submit a Department of Health or other jurisdictional license indicating State review of the health effects of this particular installation at this site to the file prior to the issuance of the decision,
3. should the equipment become obsolete that it be remove from the building,

4. should the lease expire that the equipment be removed from the building.

The five member Board voted unanimously in favor of granting a special permit (Sieniewicz, Horst, O'Connell, Truant and Spurlock) with the above conditions. Therefore, the special permit is granted.

The Board based its decision upon the above findings and upon the following:

- 1) The meeting of the requirements of the Ordinance;
- 2) Traffic generated or patterns of access or egress would not cause congestion, hazard, or substantial change in the established neighborhood character;
- 3) The continued operation of or the development of adjacent uses as permitted in the Ordinance would not be adversely affected by the nature of the proposed uses;
- 4) Nuisance or hazard would not be created to the detriment of the health, safety and /or welfare of the occupants of the proposed use;
- 5) The proposed use would not impair the integrity of the district or adjoining district or otherwise derogate for the Ordinance, and in fact be a significant improvement to the structure and benefit the neighborhood, and;
- 6) The new use or building construction is not inconsistent with the Urban Design Objectives set forth in Section 19.30 of the Cambridge Zoning Ordinance.

The Board of Zoning Appeal is empowered to waive local zoning regulations only. This decision therefore does not relieve the petitioner in any way from the duty to comply with local ordinances and regulation of the other local agencies, including, but not limited to the Historical Commission, License Commission and/or compliance with requirements pursuant to the Building Code and other applicable codes.

Thomas Sieniewicz
 Thomas Sieniewicz, Chair

Attest: A true and correct copy of decision filed with the offices of the City Clerk and Planning Board on 11/9/01 by Maria DeBacco, Clerk.

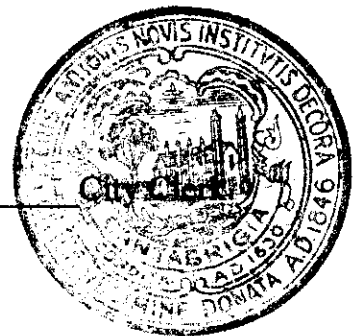
Twenty days have elapsed since the filing of this decision.

No appeal has been filed ✓

Appeal has been filed and dismissed or denied.

Date: 12/6/01

D. Margaret Quiny



November 8, 2023

Ranjit Singanayagam
Commissioner of Inspectional Services/Building Commissioner
City of Cambridge
831 Massachusetts Avenue
Cambridge, MA 02139

Re: Eligible Facilities Request to Modify Transmission Equipment at an Existing Base Station located at 678 Massachusetts Avenue, Cambridge, MA

Dear Mr. Singanayagam:

A. T-Mobile is Filing an Eligible Facilities Request

Prince Lobel Tye LLP, on behalf of T-Mobile Northeast LLC is submitting the attached Eligible Facilities Request application to add, remove, modify, or replace Transmission Equipment at an Existing Base Station located at 678 Massachusetts Avenue, Cambridge, MA

Because this jurisdiction has not yet developed an Eligible Facilities Request permit application form that complies with Section 6409 of the Middle Class Tax Relief and Job Creation Act of 2012, commonly known as the “**Spectrum Act**” (Pub. Law No. 112-96, 126 Stat 156) (codified at 47 U.S.C. § 1455), this Eligible Facilities Request is attached to the Building Permit Application form which was customarily used by this jurisdiction when reviewing requests to collocate or modify wireless telecommunications facilities. Because federal law now preempts many of the permit application requirements that this jurisdiction would previously have required from an applicant, this Eligible Facilities Request application provides only the information that federal law allows this jurisdiction to consider when reviewing an Eligible Facilities Request.

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

B. Why this Eligible Facilities Request Must Be Granted

This Eligible Facilities Request involves an effort to collocate, remove, modify, or replace Transmission Equipment at an existing Base Station operated by a Federal

Prince Lobel Tye LLP
One International Place
Suite 3700
Boston, MA 02110
TEL: 617 456 8000
FAX: 617 456 8100

Communications Commission (“FCC”) licensed wireless carrier. The FCC has defined Base Station as “the equipment and non-tower supporting structure at a fixed location that enable Commission-licensed or authorized wireless communications between user equipment and a communications network . . . the term includes equipment associated with wireless communications service including, but not limited to, radio transceivers, antennas, coaxial or fiber-optic cable, regular and backup power supply, and comparable equipment.” The term existing base station also includes a structure that currently houses or supports an antenna, transceiver or other associated equipment that constitutes part of a Base Station at the time the application is filed even if the structure was not built solely or primarily to provide such support. The existing Base Station in this application is approximately one hundred and twenty-two feet (122’) high and presently contains wireless facilities thereon. The existing Base Station meets the FCC definition of a Base Station.

The list of equipment identified in the Eligible Facilities Request application that will be collocated, removed, or replaced at the Base Station is also Transmission Equipment as determined by the FCC. The FCC has defined Transmission Equipment as “any equipment that facilitates transmission for any Commission-licensed or authorized wireless communication service, including, but not limited to, radio transceivers, antennas and other relevant equipment associated with and necessary to their operation, including coaxial or fiber-optic cable, and regular and backup power supply. This definition includes equipment used in any technological configuration associated with any Commission-authorized wireless transmission, licensed or unlicensed, terrestrial or satellite, including commercial mobile, private mobile, broadcast and public safety services, as well as fixed wireless services such as microwave backhaul or fixed broadband.”

The FCC, in a Report and Order adopted on October 17, 2014, determined that any modification to an existing telecommunications Base Station that meets the following six criteria does not substantially change the physical dimensions of the existing Base Station and therefore is an Eligible Facilities Request which must be granted:

1. *The modifications to the Transmission Equipment do not increase the height of the Base Station by more than 10 percent (10%) or ten (10) feet, whichever is greater.*
 - a. The height of the Base Station is approximately one hundred and twenty-two feet (122’) high. The proposed replacement and addition of the antennas will not affect the height of the Base Station, as the proposed modifications will take place no higher than the current height of the building.
2. *The modifications to the Transmission Equipment do not protrude from the edge of the support structure by more than six (6) feet.*

Prince Lobel Tye LLP
One International Place
Suite 3700
Boston, MA 02110
TEL: 617 456 8000
FAX: 617 456 8100

- a. The proposed replacement antennas will not protrude from the edge of the building by more than six (6) feet, and therefore the facility will not exceed the six (6) foot limitation.
3. *The modifications to the Transmission Equipment do not involve the installation of more than the standard number of equipment cabinets for the technology involved, not to exceed four.*
 - a. The Applicant proposes to replace the existing equipment cabinet existing at the Base Station.
4. *The modifications to the Transmission Equipment do not entail any excavation or deployment outside of the Base Station site.*
 - a. There will be no excavation or deployment outside of the Base Station site.
5. *The modifications to the Transmission Equipment do not defeat any existing concealed or stealth-design.*
 - a. Pursuant to the previous decisions by the Board of Zoning Appeal for the City of Cambridge (the “**Board**”) for this site, the earliest of which is dated November 9th, 2001 Case No. 8356) (the “**Decision**”), the existing panel antennas are located in the preferred location on the building. The replacement of the existing twelve (12) antennas with eight (8) new like kind antennas will not defeat the intent of the existing design, as the new antennas will be installed at the same locations as the existing antennas. Furthermore, all proposed antennas will be integrated into the building to the extent possible and painted to match the color of the facades of the Building. As such, modifications to the existing facility will be in conformity with the Decision and do not defeat the existing stealth design.
6. *The modifications to the Transmission Equipment comply with prior conditions of approval of the Base Station, unless the non-compliance is due to an increase in height, increase in width, addition of equipment cabinets, or new excavation that does not exceed the corresponding “substantial change” thresholds in numbers 1-4.*
 - a. Based on the foregoing, the proposed modifications to the Base Station fully conform to Section 6409(a) of the Spectrum Act

Prince Lobel Tye LLP
One International Place
Suite 3700
Boston, MA 02110
TEL: 617 456 8000
FAX: 617 456 8100

and comply with the prior conditions of approval of the Base Station.

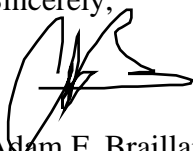
There is a certification attached to the accompanying Eligible Facilities Request that identifies how each of the six review criteria identified by the FCC is met. The modifications to the Transmission Equipment at the Base Station located at 678 Massachusetts Avenue, Cambridge, MA 02139 contained in this Eligible Facilities Request fully conform to Section 6409(a) as enacted by Congress and as interpreted by the FCC. Accordingly, this Eligible Facilities Request must be approved within 60 days, as required by federal law and FCC implementing regulations.

C. Notice of Federal Law Expedited Permit Processing and Deemed Granted

Under federal law, an Eligible Facilities Request is deemed granted sixty (60) days after a complete application is filed with a local jurisdiction. If sixty days pass after the submission of T-Mobile's accompanying Eligible Facilities Request and the City of Cambridge has not acted to grant or deny the request, it will be deemed granted. At that time, the applicant may advise the City of Cambridge that the application has been deemed granted. If the City of Cambridge wishes to contest whether the Eligible Facilities Request has been deemed granted, the burden is on the City of Cambridge to file a lawsuit in a court of competent jurisdiction within 30 days after receipt of a written communication notifying it that the Eligible Facilities Request has been deemed granted. Failure to file a lawsuit in a timely manner may forever bar this jurisdiction from contesting that this Eligible Facilities Request has been deemed granted.

T-Mobile is committed to working cooperatively with you, and all jurisdictions around the country, to secure expeditious approval of requests to modify existing personal wireless service facilities. Please do not hesitate to contact me if you have questions.

Sincerely,



Adam F. Braillard

Direct: 617-456-8153

Email: abraillard@princelobel.com

Prince Lobel Tye LLP
One International Place
Suite 3700
Boston, MA 02110
TEL: 617 456 8000
FAX: 617 456 8100

**ELIGIBLE FACILITIES REQUEST CERTIFICATION FOR NON-SUBSTANTIAL
CHANGES
TO AN EXISTING BASE STATION**

“Base Station” means the equipment and non-tower supporting structure at a fixed location that allow Commission-licensed or authorized wireless communications between user equipment and a communications network. The term base station includes any equipment associated with wireless communications services including but not limited to radio transceivers, antennas, coaxial or fiber-optic cables, regular or back up power supply, and comparable equipment. The term existing base station also includes a structure that currently houses or supports an antenna, transceiver or other associated equipment that constitutes part of a base station at the time the application is filed even if the structure was not built solely or primarily to provide such support. “Base Station” includes the relevant equipment in any technological configuration, including small cells and DAS. Remember “Base Station” has two separate meanings: (1) the supporting structure that houses FCC licensed or authorized wireless equipment and (2) the wireless equipment itself. Keep this distinction in mind when calculating a substantial change in physical dimensions.

“Transmission Equipment” means any equipment that facilitates transmission for any FCC licensed or authorized wireless communication service, including but not limited to, radio transceivers, antennas and other relevant equipment associated with and necessary to their operation, including coaxial or fiber-optic cable, and regular and back-up power supply. This definition includes equipment used in any technological configuration associated with any Commission-authorized wireless transmission, licensed or unlicensed, terrestrial or satellite, including commercial mobile, private mobile, broadcast and public safety services, as well as fixed wireless services such as microwave backhaul or fixed broadband.

“Collocation” means the addition, removal or replacement of Transmission Equipment to an existing tower or a base station. This means that the existing support structure, be it a tower or a building or some other structure, must presently support FCC licensed or authorized wireless facilities. The FCC further requires that the site (tower, building, or other structure) was previously approved by the appropriate agency of government to house wireless facilities. Illegal wireless installations cannot be the basis for an eligible facilities request. However, if a communications Tower was erected at a time when it was exempt from zoning, the Tower can be modified through the Eligible Facilities Request process even if the Tower is no longer exempt from zoning.

Site Address: 678 Massachusetts Avenue, Cambridge, MA 02139

Existing Facilities

The Existing Facility is comprised of twelve (12) panel antennas mounted to the façade of the existing penthouse on the roof of the building, together with supporting equipment.

Height of Base Station

Height above ground level of the tallest point on the existing base station: 122'.

Height above ground level of the tallest point of the existing base station after the installation of the *proposed* equipment: 122'

- 1) Does the height above ground level of the proposed equipment exceed the height of the tallest point on the existing base station by more than 10 percent (10%) or ten (10) feet, whichever is greater?

Yes No

Width of Base Station

- 2) Will any of the proposed equipment protrude from the edge of the support structure by more than six (6) feet?

Yes No

Excavation or Equipment Placement

- 3) Will the proposed changes in Transmission Equipment involve excavation or placement of new equipment outside the existing Base Station site or outside any access or utility easements currently related to the site?

Yes No

Equipment Cabinets

- 4) Will the proposed modification in Transmission Equipment involve installation of more than the standard number of new equipment cabinets for the technology involved, but not to exceed four?

Yes No

Concealed or Stealth-Designed Wireless Facilities

5)

- a) Is the existing wireless facility concealed or stealth- designed?

Yes No

- b) If the answer to 5a) is "Yes," will the proposed modification in Transmission Equipment defeat the existing concealed or stealth-design? **NA**

Yes No

Compliance with Preexisting Conditions of Approval for the Base Station

6)

- a) Were there any conditions of approval stated in the original government approval of the Base Station?

Yes No

- b) Will the proposed modification in Transmission Equipment comply with conditions of approval imposed on the Base Station prior to February 22, 2012?

Yes No

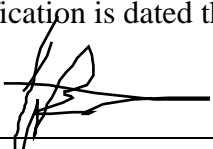
- c) If the answer to 6b) is "No," is the non-compliance due solely to any of the conditions addressed in Questions 1-5 above? **NA**

Yes No

If the answers to questions 1-4 are "No," the answer to either 5a) or b) is "No," and the answers to 6a) is "No" or the answers to either 6b) or 6c) are "Yes," then the proposed modifications do not substantially change the physical dimensions of the existing Base Station.

This certification is dated this 8th day of November, 2023.

Signature



Adam F. Braillard, Esq., Attorney for Applicant
Name & Title

Eligible Facilities Request (EFR) Application Form

Date of Submittal: _____

Submitted by:

Name: _____

Title: _____

Contact information: _____

Name of Jurisdiction: _____

Address of Jurisdiction: _____

Contact Name for Jurisdiction: _____

Name of Local Government Permit Application: _____

Local Government File #: _____

Street Address of Site: _____

Tax Parcel # of Site: _____

Latitude/Longitude of Site: _____

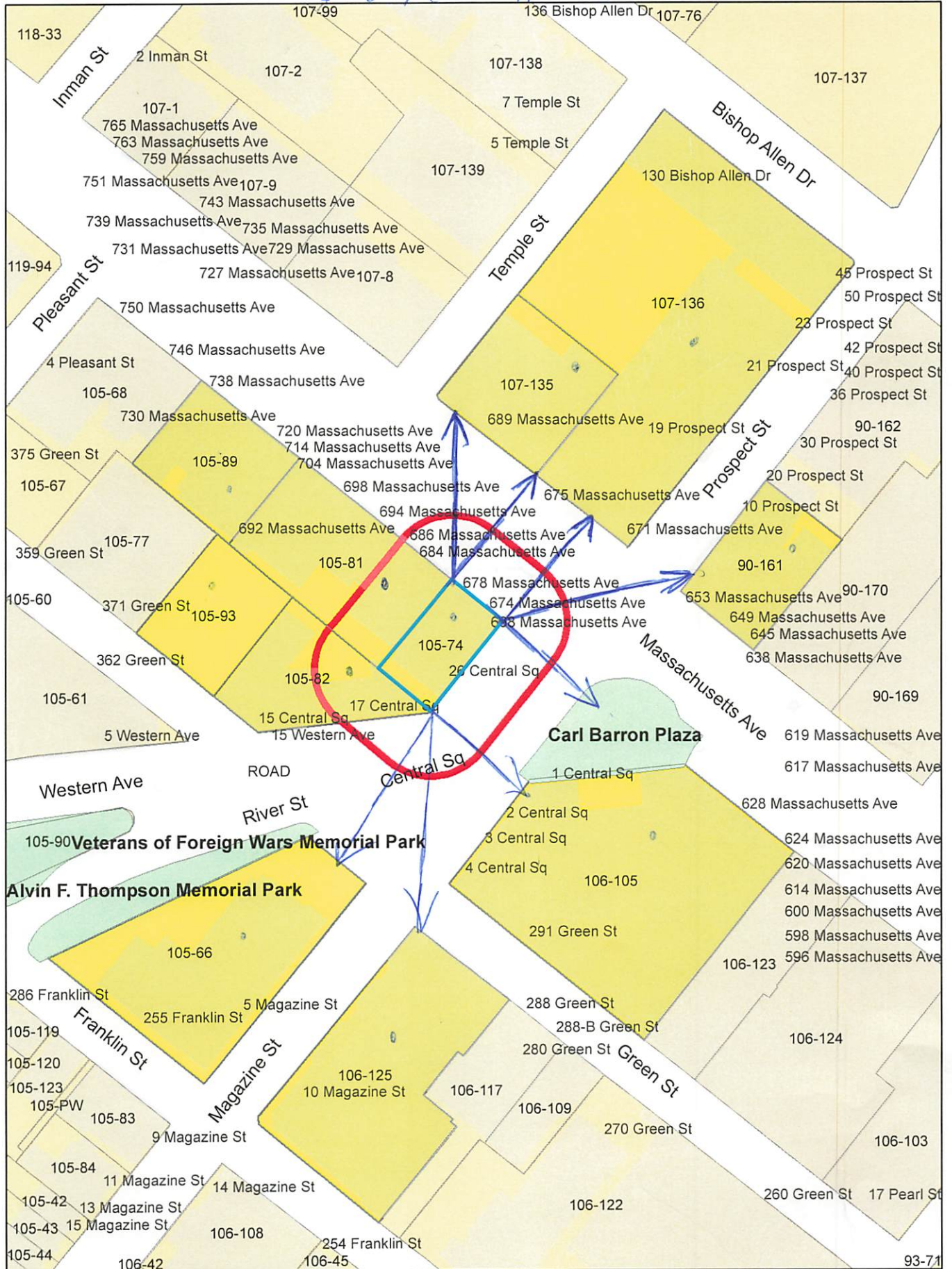
List Each Piece of Transmission Equipment that will be Collocated or Added:

List Each Piece of Transmission Equipment that will be Removed:

List Cabinets that will be Collocated or Added at the Site:

List Cabinets that will be Removed at the Site:

678 Mass Ave



678 Mass Ave

Retention

105-81-82
CENTRAL PROPERTY LIMITED PARTNERSHIP
C/O RIVERSIDE MANAGEMENT
P.O. BOX #440317
WEST SOMERVILLE, MA 02144

106-125
EQR-CHURCH CORNER, L.L.C.
EQR-RE TAX DEPARTMENT
P.O BX 87407 - LEDGER NO.19231
CHICAGO, IL 60606

PRINCE LOBEL TYE LLP
C/O ADAM BRAILLARD, ESQ.
ONE INTERNATIONAL PLACE -- SUITE 3700
BOSTON, MA 02110

105-74
678 MASS AVE. LLC
825 BEACON ST - SUITE 1
NEWTON CENTER, MA 02159

105-89
720 MASS AVE REALTY, LLC,
720 MASSACHUSETTS AVE
CAMBRIDGE, MA 02139

107-136
U.S. REIF CENTRAL PLAZA MASS. LLC.
C/O INTERCONTINENTAL MGMT CORP
1270 SOLDIERS FIELD RD
BOSTON, MA 02135

90-161
CHOICE REALTY LLC
825 BEACON ST UNIT 1
NEWTON CENTRE, MA 02459

105-66
FIRST BAPTIST CHURCH OF CAMBRIDGE, THE
5 MAGAZINE ST
CAMBRIDGE, MA 02139-0007

105-93
720 MASS. AVE. REALTY, LLC
720 MASS. AVE
CAMBRIDGE, MA 02139

106-105
CENTRAL SQUARE LLC,
C/O HUNNEMAN REAL ESTATE CORP.
303 CONGRESS ST.
BOSTON, MA 02210

107-135
CITY OF CAMBRIDGE
YI-AN HUANG
CITY MANAGER

107-135
CITY OF CAMBRIDGE
C/O MEGAN BAYER
CITY SOLICITOR