

# CITY OF CAMBRIDGE

BOARD OF ZONING APPEAL

831 Massachusetts Avenue, Cambridge MA 02139

617-349-6100

## BZA Application Form

BZA Number: 165052

### General Information

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

Special Permit:   X  

Variance:           

Appeal:           

**PETITIONER:** T-Mobile Northeast, for the Massachusetts Institute of Technology C/O Adam Brillard, Esq., of Prince Lobel Tye LLP

**PETITIONER'S ADDRESS:** One International Place, Suite 3700, Boston, MA 02110

**LOCATION OF PROPERTY:** 20 Sidney St., Cambridge, MA

**TYPE OF OCCUPANCY:** Hotel and Telecommunications **ZONING DISTRICT:** Cambridgeport Revitalization Development District

### **REASON FOR PETITION:**

/Telecommunication Facility (antenna)/

### **DESCRIPTION OF PETITIONER'S PROPOSAL:**

The Applicant seeks to modify its existing wireless communications facility by replacing existing panel antennas with new like kind panel antennas, and by replacing existing Remote Radio Units (RRUs) with new RRUs, as well as modifying existing ancillary equipment on the rooftop of the building.

### **SECTIONS OF ZONING ORDINANCE CITED:**

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

Original  
Signature(s):

(Petitioner (s) / Owner)

Adam Brillard, Esq., of Prince Lobel Tye, LLP, for  
the Petitioner, T-Mobile Northeast, LLC

(Print Name)

Address:

One International Place, Suite 3700, Boston, MA 02110

Tel. No.

617-456-8153

E-Mail Address:

abrillard@princelobel.com

2022 MAR -8 AM 11:30  
RECEIVED THE CITY OF CAMBRIDGE, MASS.

**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 BRE-BMR 20 Sidney LLC  
(OWNER)

Address: c/o BioMed Realty 350 Massachusetts Avenue Suite 100 Cambridge, MA 02139

State that I/We own the property located at 20 Sidney Street,  
which is the subject of this zoning application.

The record title of this property is in the name of BRE-BMR 20 Sidney LLC

\*Pursuant to a deed of duly recorded in the date 3/23/2021, Middlesex South  
County Registry of Deeds at Book 77301, Page 237; or  
Middlesex Registry District of Land Court, Certificate No. \_\_\_\_\_  
Book \_\_\_\_\_ Page \_\_\_\_\_.

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

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

Commonwealth of Massachusetts, County of Middlesex

The above-name John F. Riley personally appeared before me,  
this 28<sup>th</sup> of February, 2022, and made oath that the above statement is true.

My commission expires 7/6/23 (Notary Seal).

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

March 7, 2022

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:	20 Sidney Street, Cambridge, MA 02139 Assessor's Map 69, lot 62 (the " <b>Property</b> ")
Applicant:	T-Mobile Northeast, LLC (" <b>Applicant</b> ")

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 Cambridgeport Revitalization Development District. To the extent that the Board determines that the requirements of Article 4 Section 4.32G.1 of the City of Cambridge Zoning Ordinance (the "**Ordinance**") apply, the use of the Property for a wireless telecommunications facility is permitted by special permit from the Board<sup>1</sup>. The Applicant's proposal satisfies the requirements for the grant of a special permit pursuant to Section 10-43 of the Ordinance.

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

The Applicant seeks to modify its existing wireless communications facility by replacing existing panel antennas with new like kind panel antennas, , and by replacing

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<sup>1</sup> 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.

existing Remote Radio Units (RRUs) with new RRUs, as well as modifying existing ancillary equipment (the “**Proposed Facility**”). The Applicant’s Proposed Facility is described in more detail bellow 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 a location where the signal is not obstructed or degraded by other buildings or by topographical features such as hills.

## **II. Project Description**

The Applicant’s existing Facility consists of three (3) sectors (Alpha, Beta and Gamma), with each sector having two (2) panel antennas and three (3) RRUs each. All of the antennas are façade mounted on the Building’s penthouse. The antennas associated with the Alpha and Beta sectors are concealed behind two (2) encloses painted to match the penthouse and out of view to the public. The Gamma sector is located on the facade of the penthouse and out of view to the public. As noted above, the Applicant proposes to modify its existing Facility currently operating on the Building by replacing six (6) panel antennas with nine (9) new panel antennas, by replacing nine (9) RRUs with six (6) new RRUs, and by modifying ancillary equipment on the rooftop and within an equipment room of the Building. The Alpha and Beta Sectors will continue to be concealed behind new enclosed, which will increase in size by approximately one (1’) foot in depth, and will be painted to match the façade of the penthouse. The Gamma sector will move southeast façade of the penthouse and will continue to be out of view. All of the antennas associated with the Gamma sector will be painted to match the color of the façade. Consequently, the visual change to the Applicant’s existing facility will be de minimus.

The Applicant’s proposal is consistent with the previous decisions of the Board for this facility, the first of which is dated August 28, 2003 (Case No. 8728) (the “**Original Decision**”), a second dated October 22, 2009 (Case No. 9853) (the “**2nd Decision**”) and a third decision dated July 26, 2018 (Case No. 016793-2018) (the “**3rd Decision**” and together with the Original Decision and 2<sup>nd</sup> Decision shall hereafter be referred to as the “**Decisions**”).



### 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 Cambridgeport Revitalization Development District is permitted by special permit. The Applicant's Proposed Facility further complies with the provisions set forth in Section 4.32(g), footnote 49 of the Ordinance:

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

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

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

T-Mobile investigated alternative sites in and around the defined geographic area within which its engineers determined that a facility must be located to fill the gap in service coverage and to function effectively within its network of existing and planned facilities. This is an existing location that is being upgraded with new technology to provide the necessary coverage to the subject area of the City of Cambridge. Therefore, the Proposed Facility in the Cambridgeport Revitalization Development District is necessary to close the coverage gap that is illustrated on the propagation maps submitted herewith. Consequently, T-Mobile is unable to close a gap in its wireless network without obtaining the requested relief under Section 6409 of the Spectrum act or a Special Permit to modify its existing wireless facility in the Cambridgeport Revitalization Development 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 no additional visual impact on the existing facility and Building. The Proposed Facility will be installed on the façade and of the penthouse of the Building, removing nine (5) of the existing antennas and adding nine (9) new antennas, and in conformity with the Decision.

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

- 3. Where it is proposed to erect such a facility in any residential zoning district, the extent to which there is a demonstrated public need for the facility at the proposed locations, the existence of alternative, functionally suitable sites in nonresidential locations, the character of the prevailing uses in the area, and the prevalence of other existing mechanical systems and equipment carried on or above the roof of nearby structures. The Board of Zoning Appeal shall grant a special permit to erect such a facility in a residential zoning district only upon a finding that nonresidential uses predominate in the vicinity of the proposed facility’s location and that the telecommunications facility is**

**not inconsistent with the character that does prevail in the surrounding neighborhood.**

The Proposed Facility is located in a nonresidential district. As such, the Applicant submits that nonresidential uses predominate in the area, and in keeping with the Decisions, respectfully requests that the Board find the same.

**B. The Applicant complies with the Special Permit Criteria set forth in Section 10-43 of the Ordinance<sup>2</sup>:**

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

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

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

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

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

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

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<sup>2</sup> 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 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 Cambridgeport Revitalization Development 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,



Adam F. Braillard

Direct: 617-456-8153

Email: [abraillard@princelobel.com](mailto:abraillard@princelobel.com)

Enclosures



Date: \_\_\_\_\_

**BZA Application Form****DIMENSIONAL INFORMATION****Applicant:** T-Mobile Northeast, for the Massachusetts Institute of Technology**Present Use/Occupancy:** Hotel and Telecommunications**Location:** 20 Sidney St., Cambridge, MA**Zone:** Cambridgeport Revitalization Development District**Phone:** 617-456-8153**Requested Use/Occupancy:** Hotel and Telecommunications

		<b><u>Existing Conditions</u></b>	<b><u>Requested Conditions</u></b>	<b><u>Ordinance Requirements</u></b>	
<b><u>TOTAL GROSS FLOOR AREA:</u></b>		N/A	No change	N/A	(max.)
<b><u>LOT AREA:</u></b>		N/A	No Change	N/A	(min.)
<b><u>RATIO OF GROSS FLOOR AREA TO LOT AREA: <sup>2</sup></u></b>		N/A	No Change	N/A	
<b><u>LOT AREA OF EACH DWELLING UNIT</u></b>		N/A	No Change	N/A	
<b><u>SIZE OF LOT:</u></b>	WIDTH	N/A	No Change	N/A	
	DEPTH	N/A	No Change	N/A	
<b><u>SETBACKS IN FEET:</u></b>	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	
<b><u>SIZE OF BUILDING:</u></b>	HEIGHT	N/A	No Change	N/A	
	WIDTH	N/A	No Change	N/A	
<b><u>RATIO OF USABLE OPEN SPACE TO LOT AREA:</u></b>		N/A	No Change	N/A	
<b><u>NO. OF DWELLING UNITS:</u></b>		N/A	No Change	N/A	
<b><u>NO. OF PARKING SPACES:</u></b>		N/A	No Change	N/A	
<b><u>NO. OF LOADING AREAS:</u></b>		N/A	No Change	N/A	
<b><u>DISTANCE TO NEAREST BLDG. ON SAME LOT</u></b>		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 the modification of an existing Wireless Communications Facility, more commonly referred to as "collocation".

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

PROJECT INFORMATION	
SCOPE OF WORK:	TELECOMMUNICATION FACILITY UPGRADE
SITE ADDRESS:	20 SIDNEY STREET, CAMBRIDGE, MA 02139
LATITUDE:	42° 21' 44" N, 42.362120 N
LONGITUDE:	71° 06' 00" W, 71.100120 W
PROJECT:	SPRINT RETAIN
TYPE OF SITE:	ROOF TOP
BUILDING HEIGHT:	124'–6"±
RAD CENTER:	118'± – 122'±
CURRENT USE:	TELECOMMUNICATIONS FACILITY
PROPOSED USE:	TELECOMMUNICATIONS FACILITY

DRAWING INDEX		
SHEET NO.	DESCRIPTION	REV.
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A–4	ANTENNA PLANS	4
A–5	MOUNTING DETAILS	4
A–6	BETA MOUNTING DETAILS & RF SCHEDULE	4
A–7	EQUIPMENT DETAILS	4
S–1	STRUCTURAL DETAILS	4
S–2	STRUCTURAL DETAILS	4
E–1	ELECTRICAL DETAILS	4

SCOPE OF WORK:

–REMOVE EXISTING (3) WIMAX–ANTENNAS

–REMOVE EXISTING (3) COMMSCOPE–NNVV–65B–R4 ANTENNAS

–REMOVE EXISTING (3) ALCATEL–2.5GHz RRUS

–REMOVE EXISTING (3) ALCATEL–2x50 800MHz RRUS

–REMOVE EXISTING (3) ALCATEL–1900MHz RRUS

–REMOVE EXISTING (1) ELTEK–ECAB

–REMOVE EXISTING (1) EMPTY RACK

–REMOVE EXISTING (3) HYBRID CABLES

–REMOVE EXISTING (2) ANTENNA STEALTHS PER. ALPHA/BETA SECTOR

–REPLACE EXISTING (1) SPRINT–GPS ANTENNA

–ADD PROPOSED (3) RFS–APXVAALL18\_43–U–NA20 ANTENNAS

–ADD PROPOSED (3) ERICSSON–AIR6449 B41 MIMO ANTENNAS

–ADD PROPOSED (3) RFS–APXVLL19P\_43–C–A20 ANTENNAS

–ADD PROPOSED (3) ERICSSON–4480 B71+B85 RRUS

–ADD PROPOSED (3) ERICSSON–4460 B25+B66 RRUS

–ADD PROPOSED (3) HYBRID CABLES

–ADD PROPOSED (1) ERICSSON–6230 UNIT & POWER RACK

–ADD PROPOSED (1) 19" FLOOR RACK (FULL SIZE)

–ADD PROPOSED (1) FIBER SLACKBOX

–ADD PROPOSED (1) T–MOBILE GPS ANTENNA

–ADD PROPOSED (2) ANTENNA STEALTHS PER. ALPHA/GAMMA SECTORS

–ADD PROPOSED (6) PIPE TO PIPE MOUNTS PER. ALPHA/GAMMA SECTORS



**T-MOBILE NORTHEAST LLC**

**SITE NAME: CAMBRIDGE II**

**T-MOBILE SITE ID: 4BSS059A**

**SITE ADDRESS: 20 SIDNEY STREET,  
CAMBRIDGE, MA 02139**

**PROJECT: SPRINT RETAIN**

**CONFIGURATION: 67E5A998E INDOOR**

**VICINITY MAP**



**GENERAL NOTES**

1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T–MOBILE. 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.
2. THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.
3. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE T–MOBILE REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



CALL

BEFORE YOU DIG

CALL TOLL FREE 811 OR 888–DIG–SAFE



**UNDERGROUND SERVICE ALERT**



GENERAL NOTES:

1. 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
2. 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.
3. 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.
4. 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.
5. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIAL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE
8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR.
9. 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.
10. 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.
11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION AND RETURN DISTURBED AREAS TO ORIGINAL CONDITIONS.
13. 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.
14. 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.
15. CONSTRUCTION SHALL COMPLY WITH ALL T–MOBILE STANDARDS AND SPECIFICATIONS.

16. 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.
17. 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.
18. 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:

1. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
2. 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.
3. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
4. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
5. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
6. 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.
7. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
8. 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.
9. 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.
10. 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.
11. THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE T–MOBILE SPECIFICATION FOR SITE SIGNAGE.

CONCRETE AND REINFORCED STEEL NOTES:

1. 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.
2. 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.
3. 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 GLASS "G" AND ALL HOOKS SHALL BE STANDARD, UNO.
4. 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.....¾ IN.  
BEAMS AND COLUMNS.....1½ IN.
5. A CHAMFER ¾" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
6. 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.
7. 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.
8. 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.
9. 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:

1. 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–36UNLESS 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".
2. 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", 8TH EDITION. PAINTED SURFACES SHALL BE TOUCHED UP.
3. 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.
4. NON–STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE ¾" Ø ASTM A 307 BOLTS (GALV) UNLESS NOTED OTHERWISE.
5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEEL.
6. ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

SOIL COMPACTION NOTES FOR SLAB ON GRADE:

1. EXCAVATE AS REQUIRED TO REMOVE VEGETATION AND TOPSOIL TO EXPOSE NATURAL SUBGRADE AND PLACE CRUSHED STONE AS REQUIRED.
2. COMPACTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEOTECHNICAL TECHNICIAN OR ENGINEER IS ACCEPTABLE.
3. 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.
4. 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.
5. 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:

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

CONSTRUCTION NOTES:

1. FIELD VERIFICATION:  
SUBCONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, T–MOBILE ANTENNA PLATFORM LOCATION AND UTILITY TRENCHWORK.
2. COORDINATION OF WORK:  
SUBCONTRACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH CONTRACTOR.
3. 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:

1. WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
2. 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.
3. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TECORDIA.
4. CABLES SHALL NOT BE ROUTED THROUGH LADDER–STYLE CABLE TRAY RUNGS.
5. 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.
6. 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.
7. 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).
8. PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
9. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
10. 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.
11. 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.
12. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #2 AWG SOLID TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.
13. 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 (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
14. 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).
15. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
16. NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
17. 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.
18. ELECTRICAL METALLIC TUBING (EMT) ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
19. GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
20. 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.
21. LIQUID–TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID–TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
22. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION–TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.
23. CABINETS, BOXES AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
24. CABINETS, BOXES AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
25. 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.
26. 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.
27. 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.
28. 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.
29. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
30. 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.
31. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
32. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.



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**SAI COMMUNICATIONS**  
12 INDUSTRIAL WAY  
SALEM, NH 03079

**SITE NUMBER: 4BSS059A**  
**SITE NAME: CAMBRIDGE II**  
20 SIDNEY STREET,  
CAMBRIDGE, MA 02139  
MIDDLESEX COUNTY

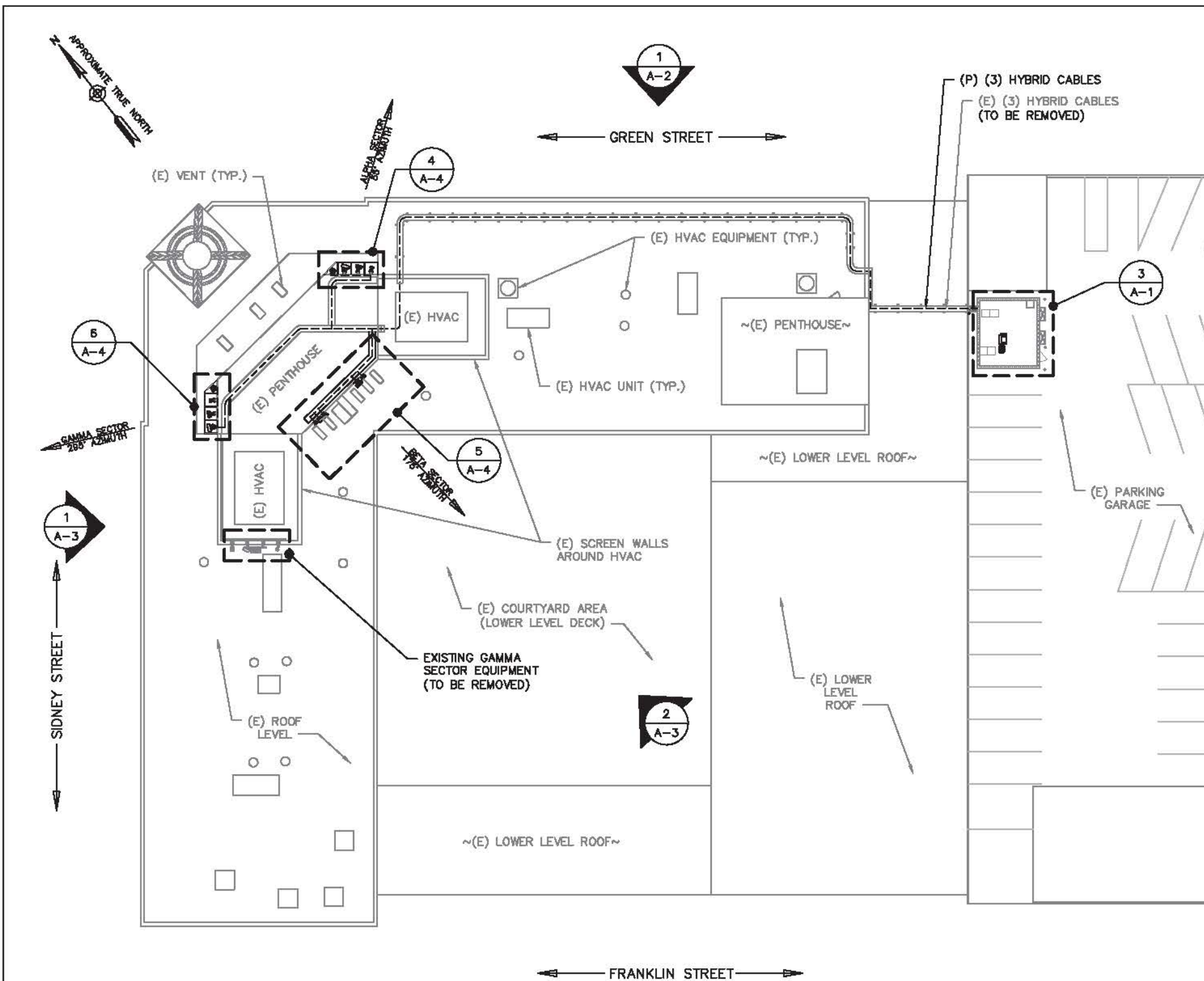


**T–MOBILE NORTHEAST, LLC**  
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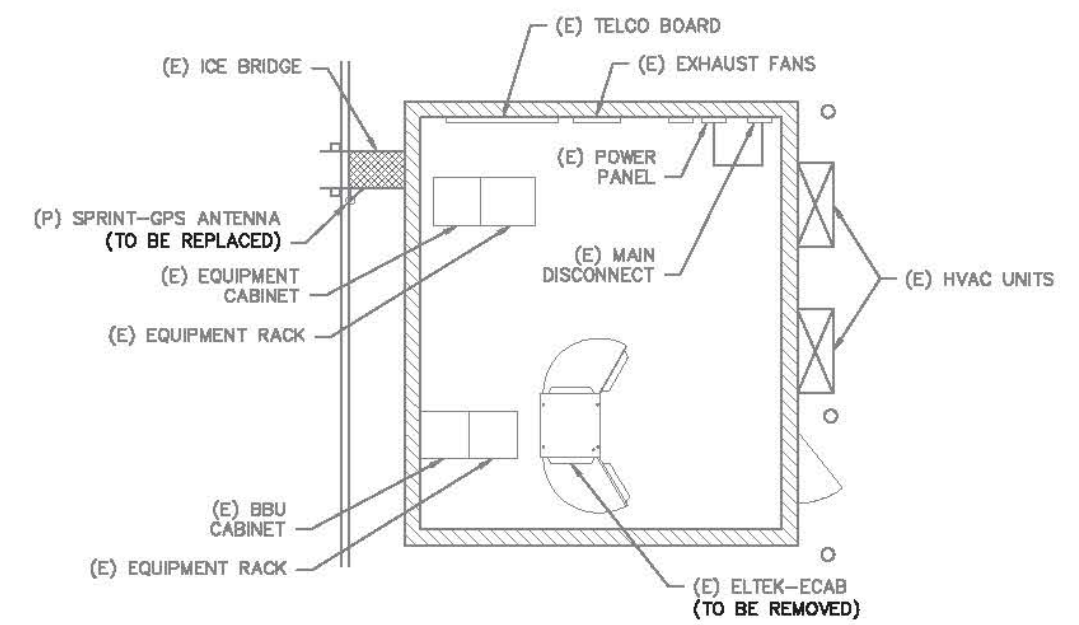
NO.	DATE	REVISIONS	BY	CHK	T–MOBILE NORTON, MA 02766		
0	04/07/21	ISSUED FOR REVIEW	AB	JLC	GENERAL NOTES		
1	04/28/21	ISSUED FOR CONSTRUCTION	AB	JLC			
2	08/08/21	ISSUED FOR CONSTRUCTION	AB	JLC	JCE #		
3	10/14/21	ISSUED FOR CONSTRUCTION	AB	JLC			
4	12/18/21	ISSUED FOR CONSTRUCTION	AB	JLC	SHEET NUMBER		
					REV		
					5479	GN–1	4



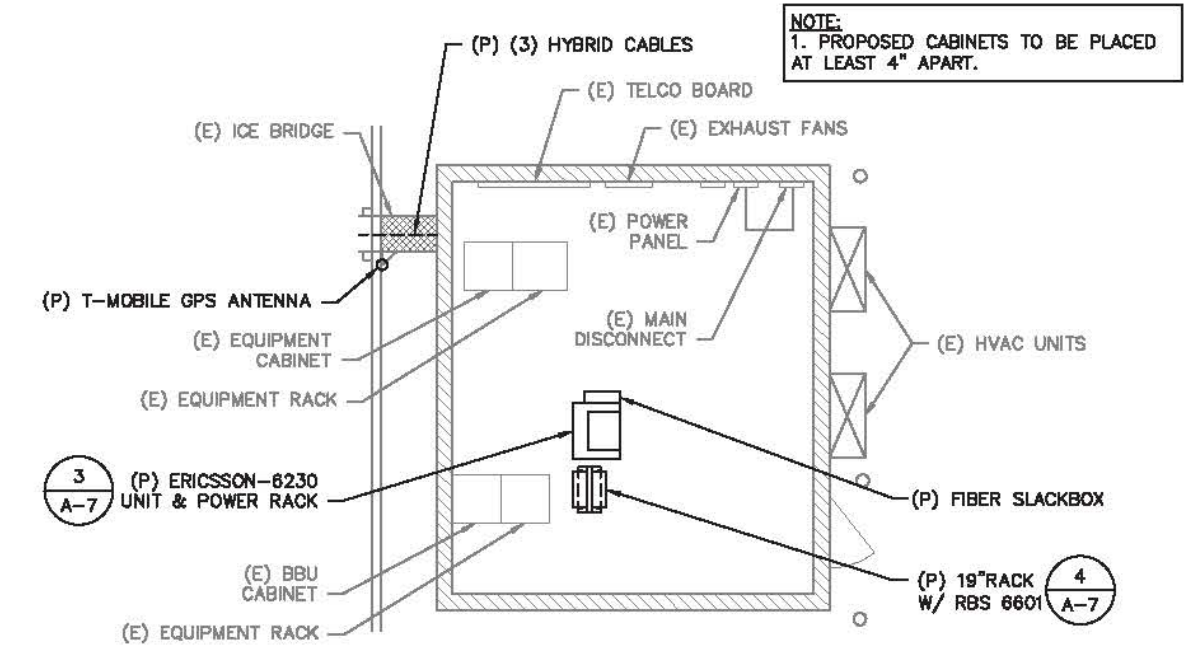


- NOTES:**
- SOME EXISTING & PROPOSED INFORMATION NOT SHOWN FOR CLARITY.
  - EXISTING BUILDING AND ANTENNA ELEVATIONS ARE APPROXIMATE AND HAVE NOT BEEN VERIFIED WITH MAPPING.
  - CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO INSTALLATION OF EQUIPMENT.
  - ALL PROPOSED ANTENNAS AND HARDWARE TO BE PAINTED TO MATCH EXISTING BUILDING.

**ROOFTOP PLAN**  
 22x34 SCALE: 1/16"=1'-0"  
 11x17 SCALE: 1/32"=1'-0"



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



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

**NOTE:**  
 1. PROPOSED CABINETS TO BE PLACED AT LEAST 4" APART.

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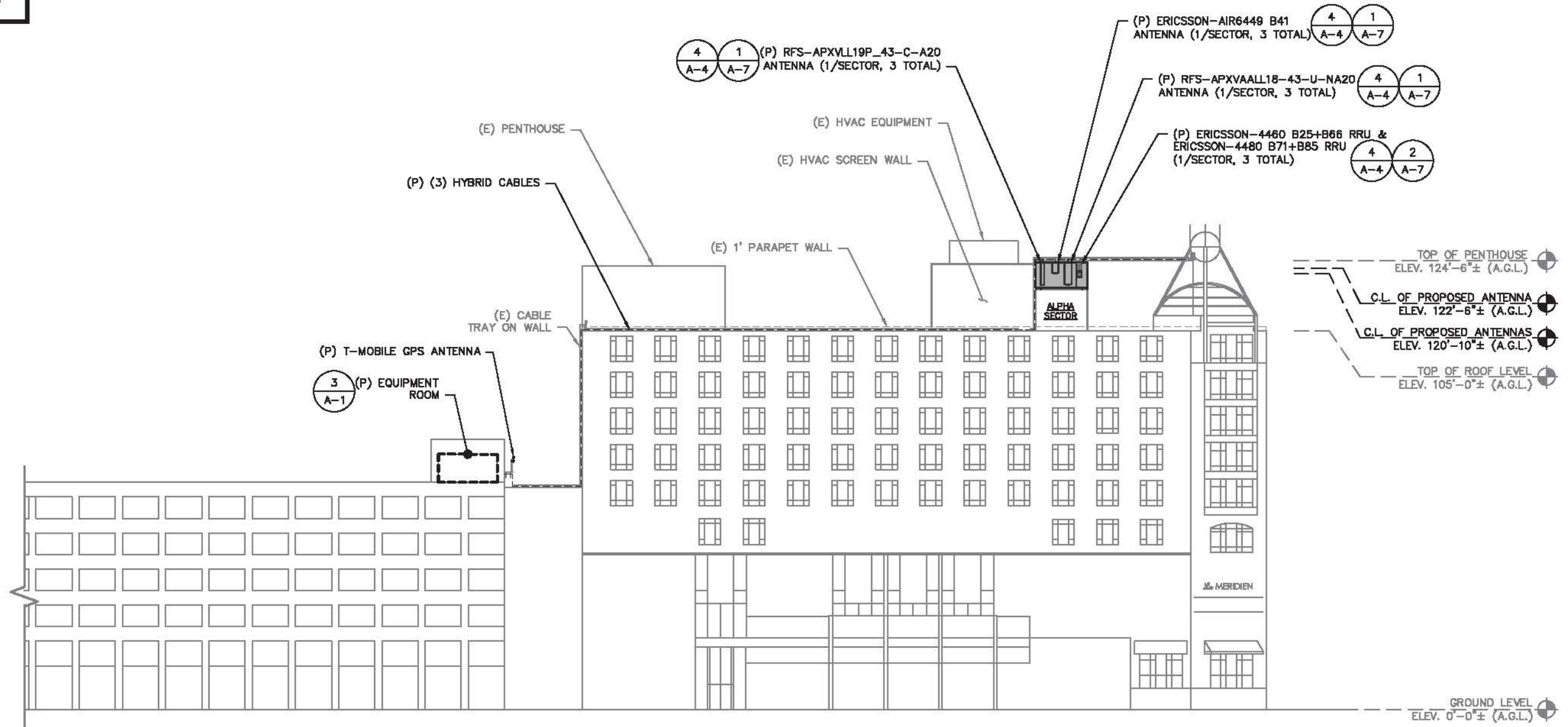
JOHN L. CHURCHILL JR.  
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 NO. 41807  
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NO.	DATE	REVISIONS	BY	CHK
0	04/07/21	ISSUED FOR REVIEW	AB	JLC
1	04/28/21	ISSUED FOR CONSTRUCTION	AB	JLC
2	08/09/21	ISSUED FOR CONSTRUCTION	AB	JLC
3	10/14/21	ISSUED FOR CONSTRUCTION	AB	JLC
4	12/18/21	ISSUED FOR CONSTRUCTION	AB	JLC

T-MOBILE NORTON, MA 02766		
ROOF TOP & EQUIPMENT PLANS		
JCE #	SHEET NUMBER	REV
5479	A-1	4

NOTE:  
REFER TO THE FINAL RF DATA  
SHEET FOR FINAL ANTENNA  
SETTINGS.



NORTHEAST ELEVATION 1  
22x34 SCALE: 1/16"=1'-0"  
11x17 SCALE: 1/32"=1'-0"  
0 8'-0" 16'-0" 32'-0" 48'-0"

NOTES:

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2. EXISTING BUILDING AND ANTENNA ELEVATIONS ARE APPROXIMATE AND HAVE NOT BEEN VERIFIED WITH MAPPING.
3. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO INSTALLATION OF EQUIPMENT.
4. ALL PROPOSED ANTENNAS AND HARDWARE TO BE PAINTED TO MATCH EXISTING BUILDING.

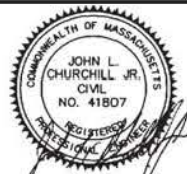


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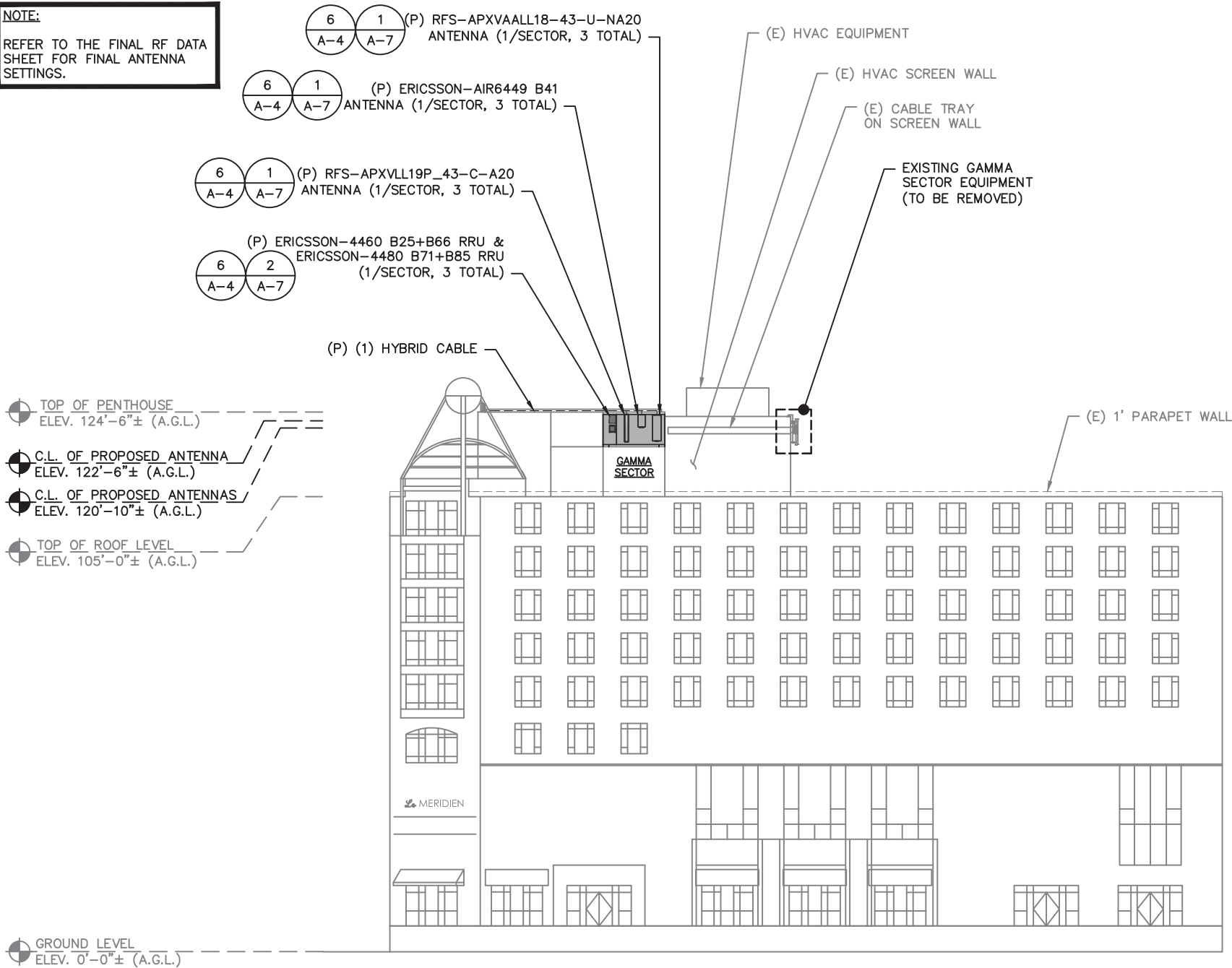
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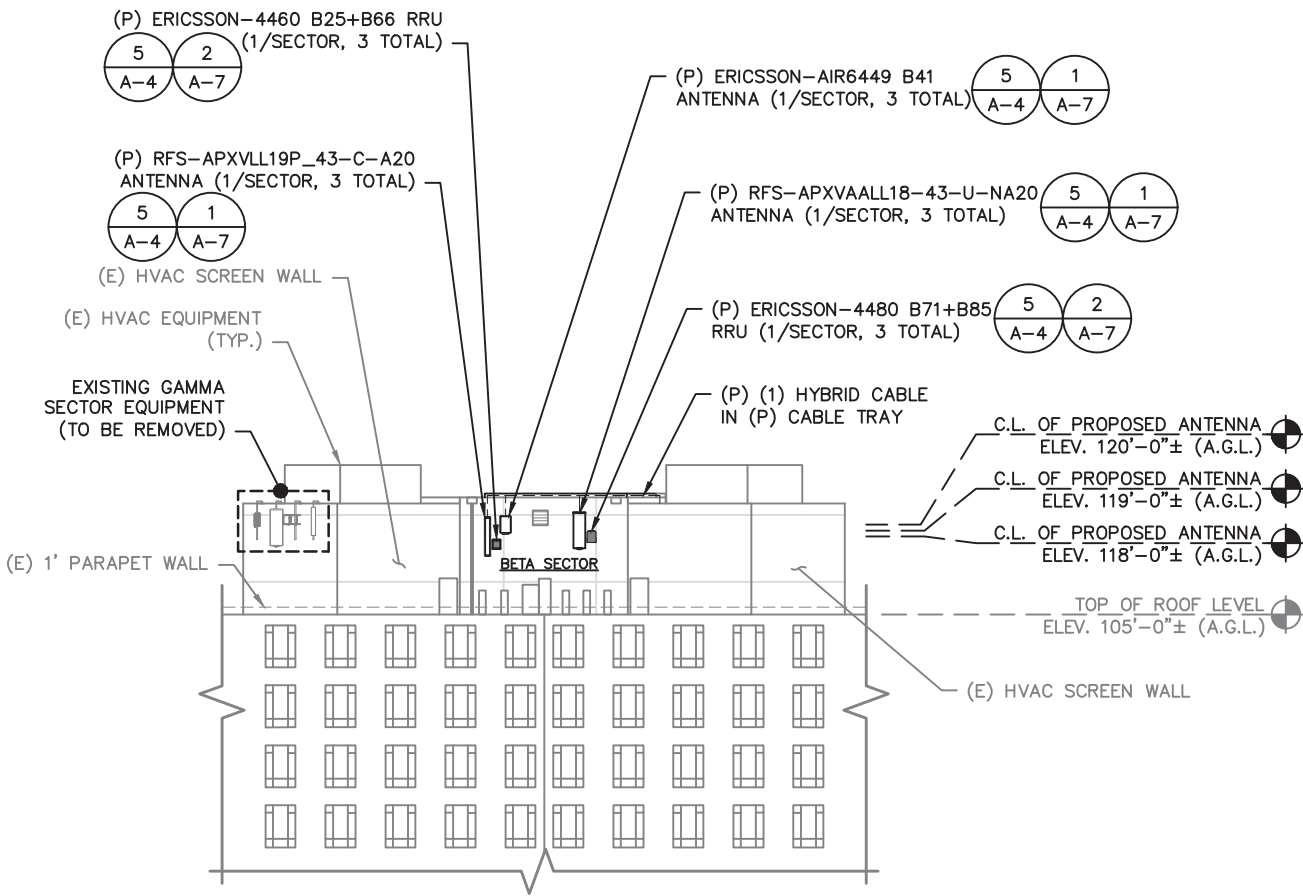
NO.	DATE	REVISIONS	BY	CHK	T-MOBILE NORTON, MA 02766		
					EAST ELEVATION PLAN		
0	04/07/21	ISSUED FOR REVIEW	AB	JLC	JCE # 5479	SHEET NUMBER A-2	REV 4
1	04/28/21	ISSUED FOR CONSTRUCTION	AB	JLC			
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4	12/18/21	ISSUED FOR CONSTRUCTION	AB	JLC			



NOTE:  
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.



**NORTHWEST ELEVATION** 1  
22x34 SCALE: 1/16"=1'-0"  
11x17 SCALE: 1/32"=1'-0" A-3



**SOUTHEAST ELEVATION** 2  
22x34 SCALE: 1/16"=1'-0"  
11x17 SCALE: 1/32"=1'-0" A-3

- NOTES:
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  - CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO INSTALLATION OF EQUIPMENT.
  - ALL PROPOSED ANTENNAS AND HARDWARE TO BE PAINTED TO MATCH EXISTING BUILDING.

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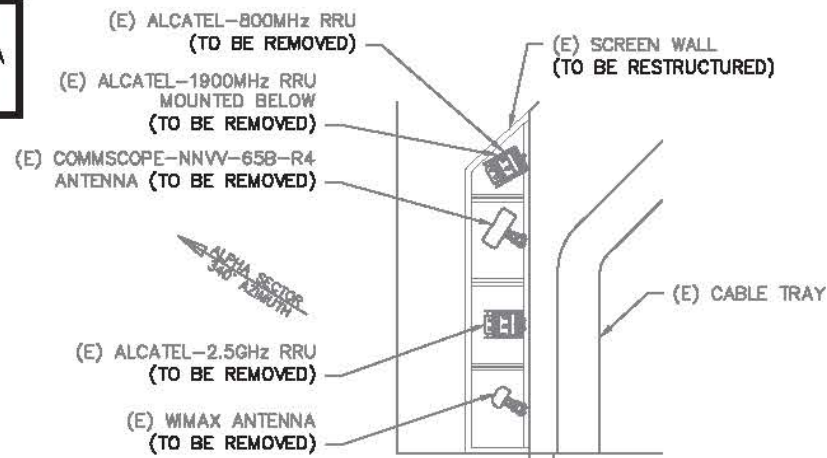
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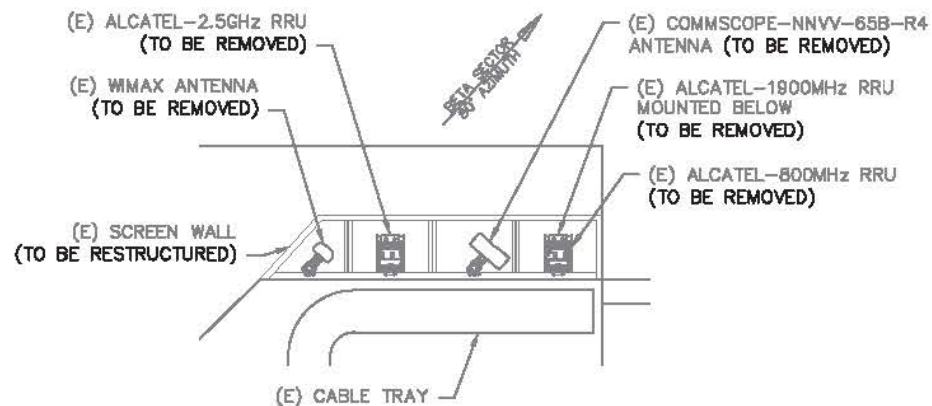
**T-Mobile**  
T-MOBILE NORTHEAST, LLC  
15 COMMERCE WAY, SUITE B  
NORTON, MA 02766  
OFFICE: (508) 286-2700  
FAX: (508) 286-2893

NO.	DATE	REVISIONS	BY	CHK	T-MOBILE NORTON, MA 02766		
					WEST ELEVATION PLAN		
0	04/07/21	ISSUED FOR REVIEW	AB	JLC	JCE # 5479	SHEET NUMBER A-3	REV 4
1	04/26/21	ISSUED FOR CONSTRUCTION	AB	JLC			
2	06/09/21	ISSUED FOR CONSTRUCTION	AB	JLC			
3	10/14/21	ISSUED FOR CONSTRUCTION	AB	JLC			
4	12/16/21	ISSUED FOR CONSTRUCTION	AB	JLC			

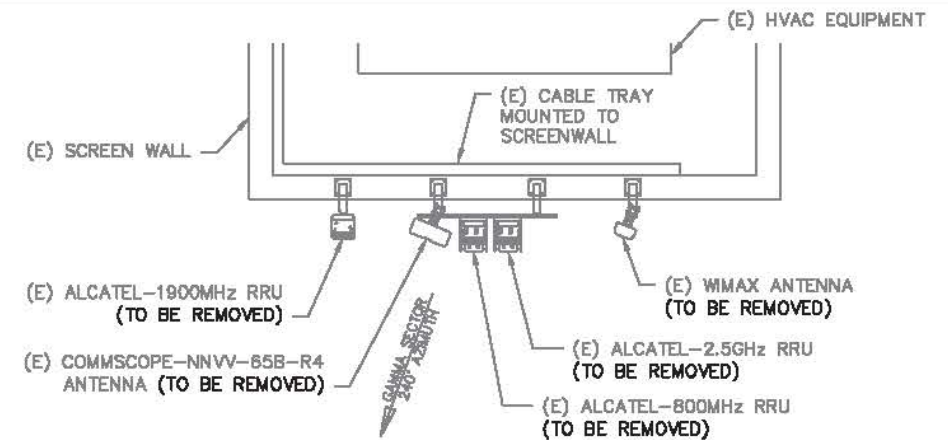
NOTE:  
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.



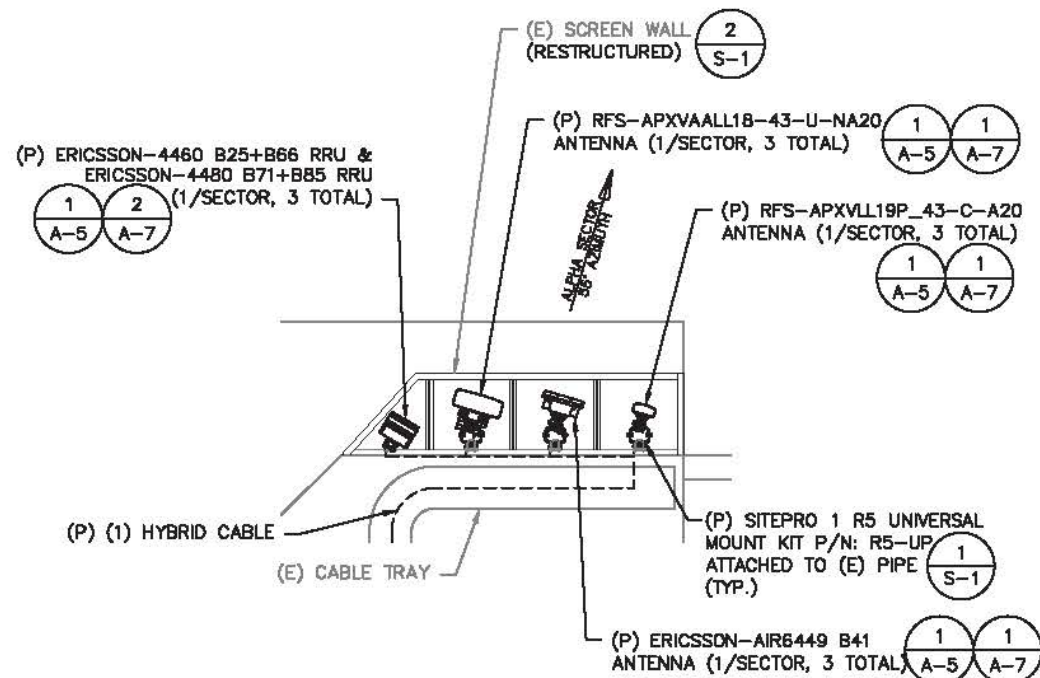
**EXISTING ANTENNA PLAN 1**  
22x34 SCALE: 1/4"=1'-0"  
11x17 SCALE: 1/8"=1'-0"  
0 2'-0" 4'-0" 8'-0" 12'-0"



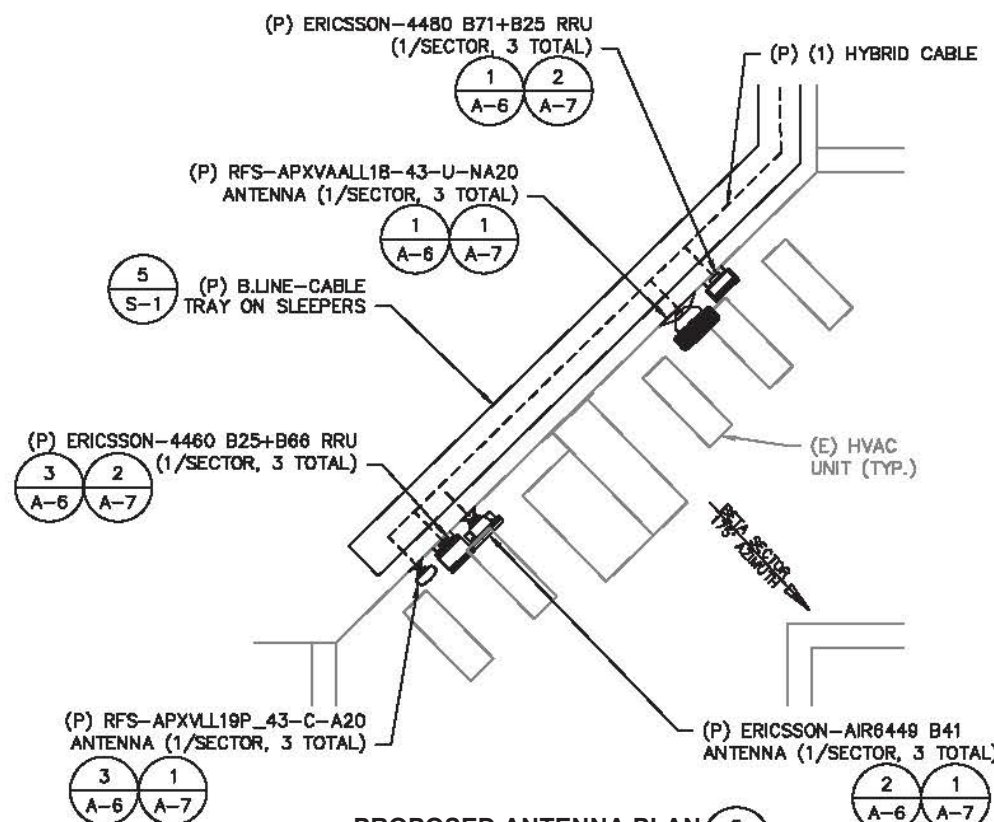
**EXISTING ANTENNA PLAN 2**  
22x34 SCALE: 1/4"=1'-0"  
11x17 SCALE: 1/8"=1'-0"  
0 2'-0" 4'-0" 8'-0" 12'-0"



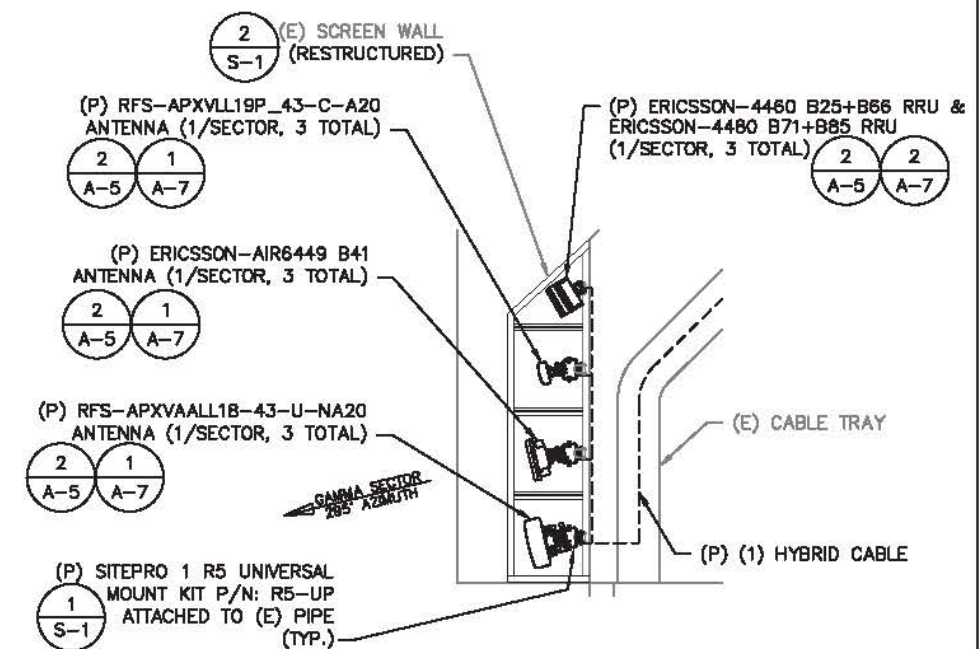
**EXISTING ANTENNA PLAN 3**  
22x34 SCALE: 1/4"=1'-0"  
11x17 SCALE: 1/8"=1'-0"  
0 2'-0" 4'-0" 8'-0" 12'-0"



**PROPOSED ANTENNA PLAN 4**  
22x34 SCALE: 1/4"=1'-0"  
11x17 SCALE: 1/8"=1'-0"  
0 2'-0" 4'-0" 8'-0" 12'-0"



**PROPOSED ANTENNA PLAN 5**  
22x34 SCALE: 1/4"=1'-0"  
11x17 SCALE: 1/8"=1'-0"  
0 2'-0" 4'-0" 8'-0" 12'-0"



**PROPOSED ANTENNA PLAN 6**  
22x34 SCALE: 1/4"=1'-0"  
11x17 SCALE: 1/8"=1'-0"  
0 2'-0" 4'-0" 8'-0" 12'-0"

NOTES:

1. SOME EXISTING & PROPOSED INFORMATION NOT SHOWN FOR CLARITY.
2. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO INSTALLATION OF EQUIPMENT.
3. ALL PROPOSED ANTENNAS AND HARDWARE TO BE PAINTED TO MATCH EXISTING BUILDING.



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**SAI COMMUNICATIONS**  
12 INDUSTRIAL WAY  
SALEM, NH 03079

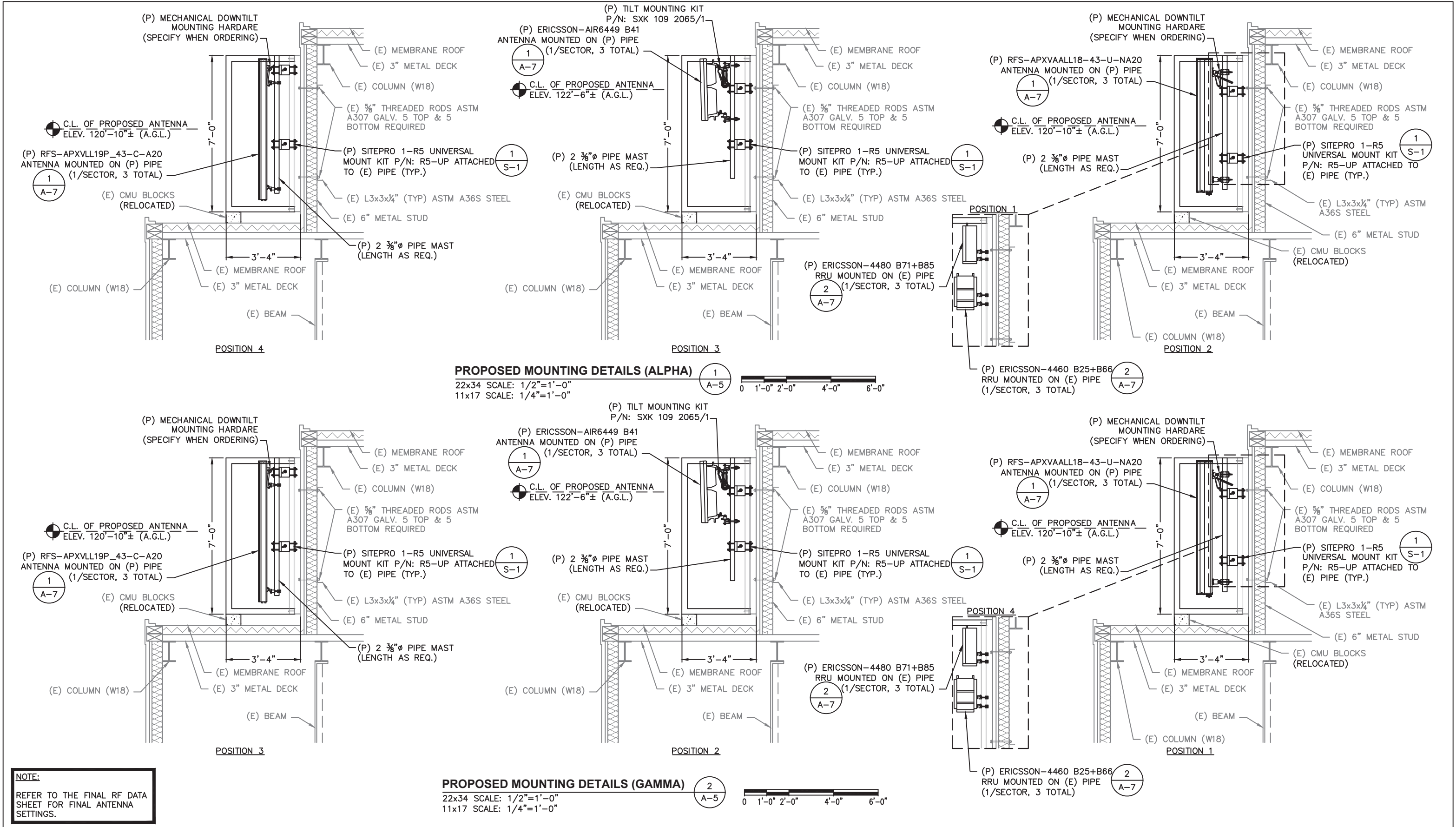
**SITE NUMBER: 4BSS059A**  
**SITE NAME: CAMBRIDGE II**  
20 SIDNEY STREET,  
CAMBRIDGE, MA 02139  
MIDDLESEX COUNTY



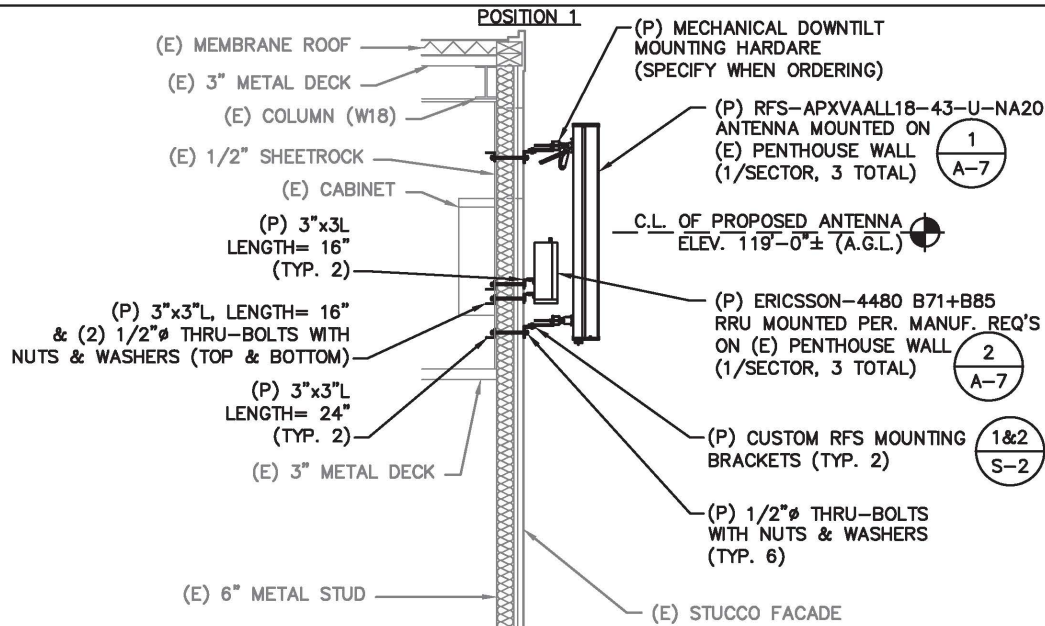
**T-Mobile**  
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OFFICE: (508) 286-2700  
FAX: (508) 286-2893

NO.	DATE	REVISIONS	BY	CHK	T-MOBILE NORTON, MA 02766		
					ANTENNA PLANS		
0	04/07/21	ISSUED FOR REVIEW	AB	JLC	JCE # 5479	SHEET NUMBER A-4	REV 4
1	04/28/21	ISSUED FOR CONSTRUCTION	AB	JLC			
2	08/09/21	ISSUED FOR CONSTRUCTION	AB	JLC			
3	10/14/21	ISSUED FOR CONSTRUCTION	AB	JLC			
4	12/18/21	ISSUED FOR CONSTRUCTION	AB	JLC			



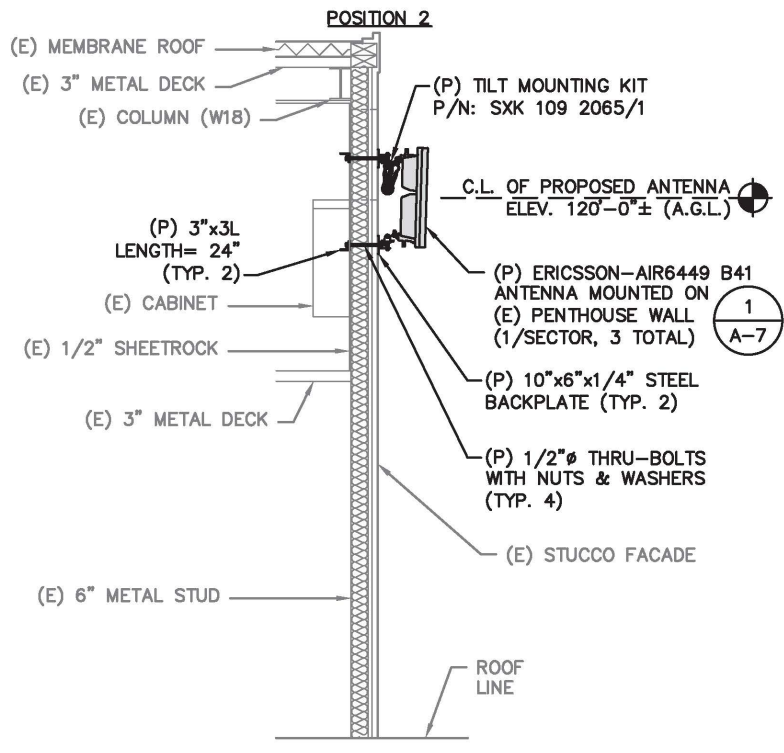


NOTE:  
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.



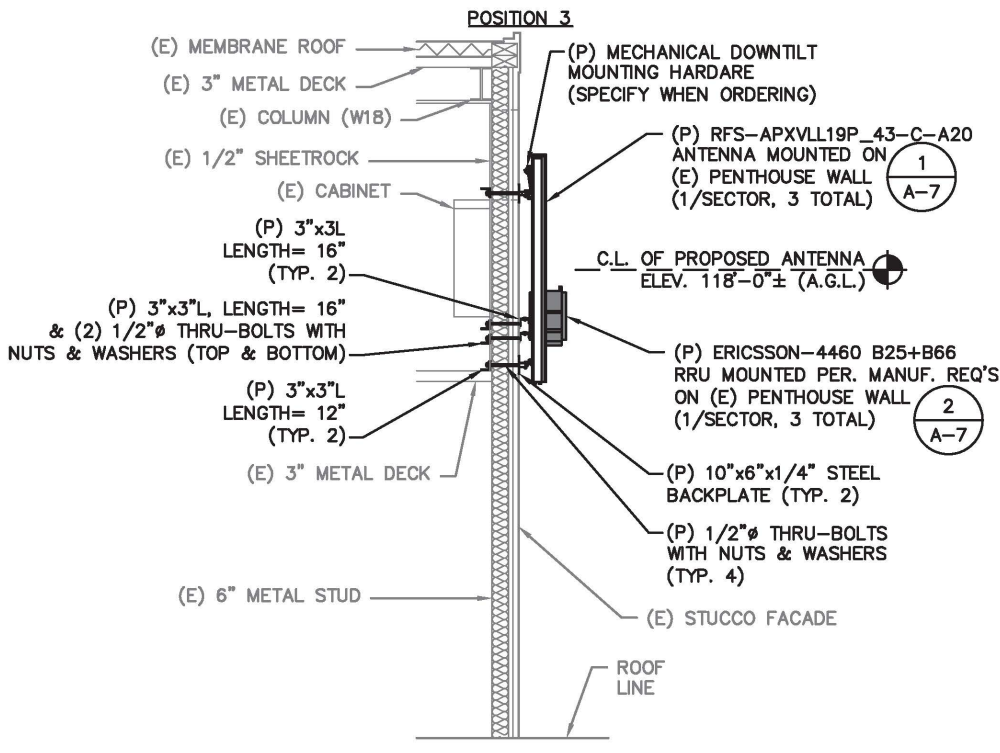
PROPOSED MOUNTING DETAIL (BETA) 1

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



PROPOSED MOUNTING DETAIL (BETA) 2

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

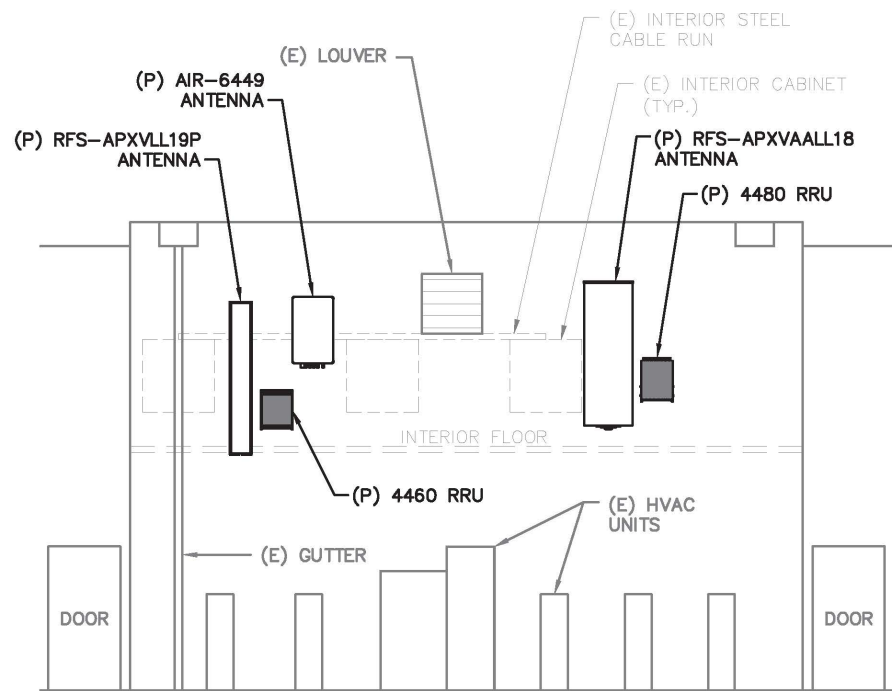


PROPOSED MOUNTING DETAIL (BETA) 3

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



FINAL RF ANTENNA SCHEDULE							
SECTOR	EXISTING/ PROPOSED	BAND	ANTENNA	ANTENNA CL. HEIGHT	AZIMUTH	RRU	FEEDER
ALPHA	PROPOSED	LTE 600/700/1900	RFS-APXVAALL18-(OCTO)	±120'-10"	55°	(P)(1) 4480 B71+B85	(1) 6x24 HYBRID CABLE
	PROPOSED	5G 2.5-2.7GHz	ERICSSON-AIR6449 B41	±122'-6"	55°		
	PROPOSED	LTE 1695-2690 MHz	RFS-APXVLL19P_43-C-A20	±120'-10"	55°	(P)(1) 4460 B25+B66	
BETA	PROPOSED	LTE 600/700/1900	RFS-APXVAALL18-(OCTO)	±119'	175° 190	(P)(1) 4480 B71+B85	(1) 6x24 HYBRID CABLE
	PROPOSED	5G 2.5-2.7GHz	ERICSSON-AIR6449 B41	±120'	175° 190		
	PROPOSED	LTE 1695-2690 MHz	RFS-APXVLL19P_43-C-A20	±118'	175° 190	(P)(1) 4460 B25+B66	
GAMMA	PROPOSED	LTE 600/700/1900	RFS-APXVAALL18-(OCTO)	±120'-10"	295°	(P)(1) 4480 B71+B85	(1) 6x24 HYBRID CABLE
	PROPOSED	5G 2.5-2.7GHz	ERICSSON-AIR6449 B41	±122'-6"	295°		
	PROPOSED	LTE 1695-2690 MHz	RFS-APXVLL19P_43-C-A20	±120'-10"	295°	(P)(1) 4460 B25+B66	



REAR WALL DETAIL 4

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



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12 INDUSTRIAL WAY  
SALEM, NH 03079

SITE NUMBER: 4BSS059A  
SITE NAME: CAMBRIDGE II  
20 SIDNEY STREET,  
CAMBRIDGE, MA 02139  
MIDDLESEX COUNTY



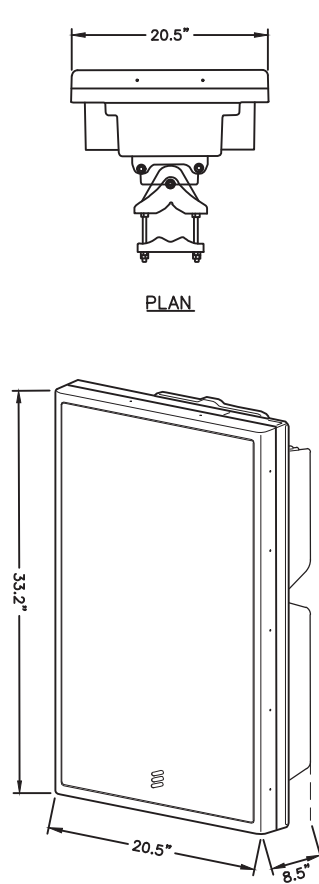
Mobile

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

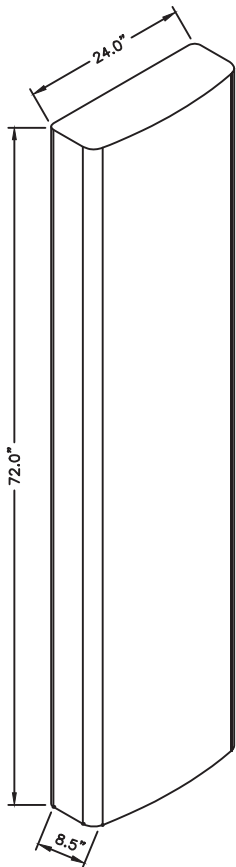
OFFICE: (508) 286-2700  
FAX: (508) 286-2893

NO.	DATE	REVISIONS	BY	CHK	T-MOBILE NORTON, MA 02766		
0	04/07/21	ISSUED FOR REVIEW	AB	JLC	BETA MOUNTING DETAILS & RF SCHEDULE		
1	04/26/21	ISSUED FOR CONSTRUCTION	AB	JLC			
2	06/09/21	ISSUED FOR CONSTRUCTION	AB	JLC			
3	10/14/21	ISSUED FOR CONSTRUCTION	AB	JLC			
4	12/16/21	ISSUED FOR CONSTRUCTION	AB	JLC			
					JCE #	SHEET NUMBER	REV
					5479	A-6	4

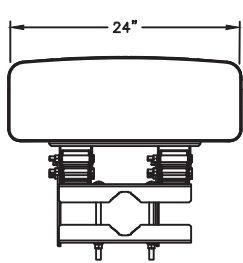




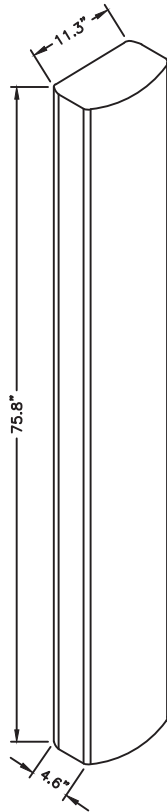
ERICSSON AIR 6449 B41 ANTENNA  
DIMENSIONS: 33.2"H x 20.5"W x 8.5"D  
WEIGHT (ANTENNA): 102 LBS  
WEIGHT (MOUNTS): 13 LBS  
1/SECTOR, 3 TOTAL



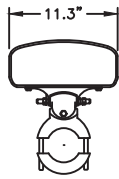
RFS APXVAALL18 43-U-NA20 OCTO ANTENNA  
DIMENSIONS: 72.0"H x 24.0"W x 8.5"D  
WEIGHT (ANTENNA): 92.6 LBS  
WEIGHT (MOUNTS): 25.3 LBS  
1/SECTOR, 3 TOTAL



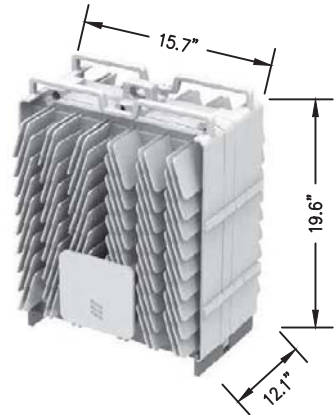
PLAN



RFS APXVLL19P 43-C-A20 QUAD ANTENNA  
DIMENSIONS: 75.8"H x 11.3"W x 4.6"D  
WEIGHT (ANTENNA): 40.9 LBS  
WEIGHT (MOUNTS): 8.4 LBS  
1/SECTOR, 3 TOTAL



PLAN



ERICSSON 4460 B25+B66 RRU  
DIMENSIONS: 19.6"H x 15.7"W x 12.1"D  
WEIGHT: 109 LBS  
1/SECTOR, 3 TOTAL



ERICSSON 4480 B71+85A RRU  
DIMENSIONS: 21.8"H x 15.7"W x 7.5"D  
WEIGHT: 84 LBS  
1/SECTOR, 3 TOTAL

RRUS DETAILS

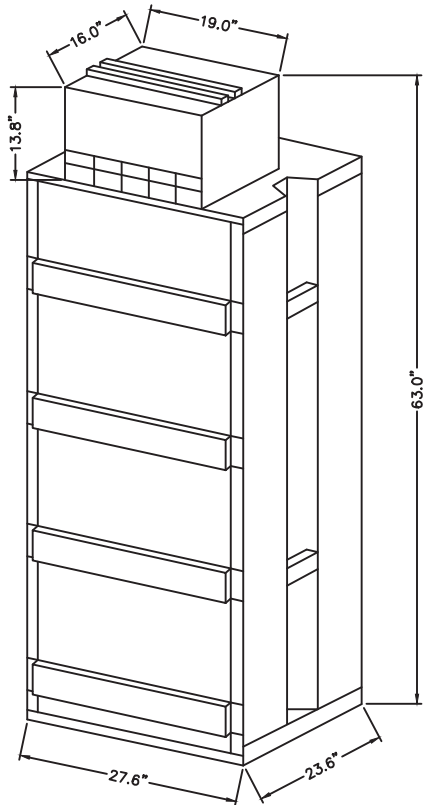
2  
A-7

ANTENNA DETAILS

1  
A-7

NOTES:

1. VERIFY VERTICAL CENTER TO CENTER MEASUREMENT WITH ANTENNA MANUFACTURER.
2. IF CONDITIONS DIFFER FROM THOSE SHOWN, CONTRACTOR TO NOTIFY C.M. AND ENGINEER



MANUFACTURER: ERICSSON  
DIMENSIONS (HxWxD): RACK= 63.0"x27.6"x23.6", 6230 UNIT= 13.8"x19"x16"  
WEIGHT: RACK= 344 LBS., 6230 UNIT= 53 LBS.

6230 UNIT & POWER RACK

3  
A-7



MANUFACTURER: STAR TECH OR EQUIVALENT  
MODEL: 18U 19" OPEN FRAME SERVER RACK  
DIMENSIONS (HxWxD): 35.6"x23.6"x22"-40"  
WEIGHT: 65 LBS.

(FULL SIZE)  
19" FLOOR RACK

SCALE: N.T.S

4  
A-7



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SITE NUMBER: 4BSS059A  
SITE NAME: CAMBRIDGE II  
20 SIDNEY STREET,  
CAMBRIDGE, MA 02139  
MIDDLESEX COUNTY

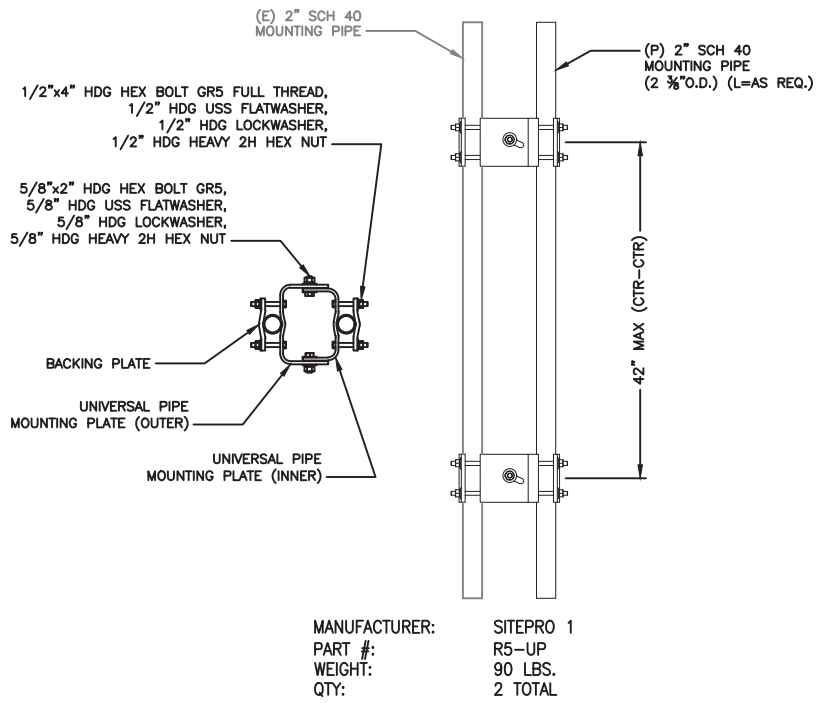


Mobile  
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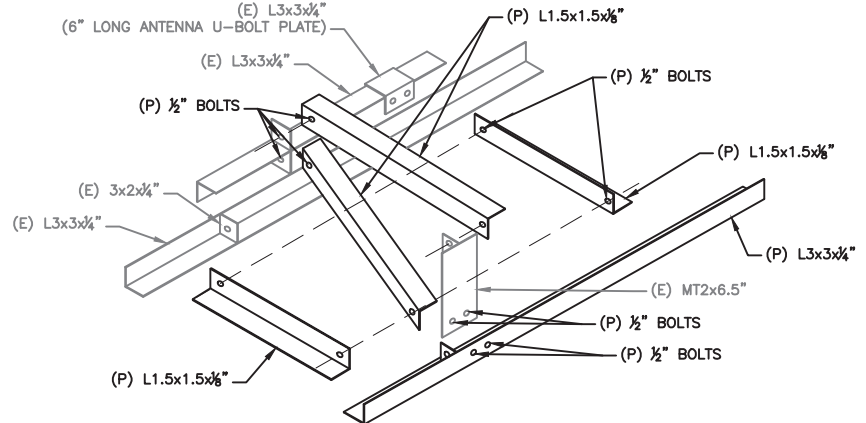
NO.	DATE	REVISIONS	BY	CHK	T-MOBILE NORTON, MA 02766		
					EQUIPMENT DETAILS		
0	04/07/21	ISSUED FOR REVIEW	AB	JLC	JCE #	SHEET NUMBER	REV
1	04/26/21	ISSUED FOR CONSTRUCTION	AB	JLC	5479	A-7	4
2	06/09/21	ISSUED FOR CONSTRUCTION	AB	JLC			
3	10/14/21	ISSUED FOR CONSTRUCTION	AB	JLC			
4	12/16/21	ISSUED FOR CONSTRUCTION	AB	JLC			



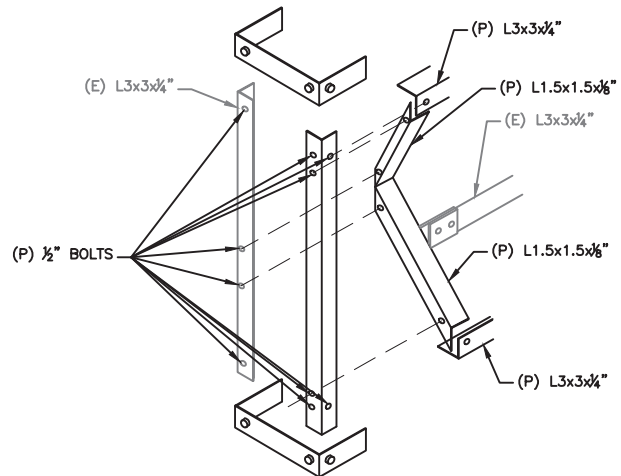
NOTE:  
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.



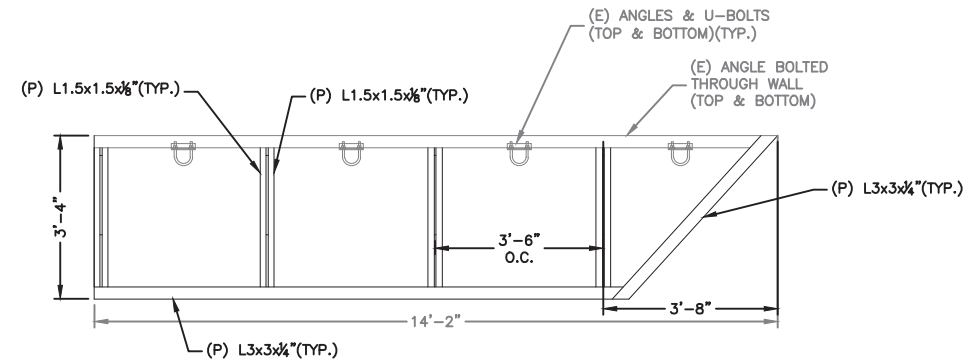
**R5 UNIVERSAL PIPE MOUNT KIT DETAIL** 1  
SCALE: N.T.S. S-1



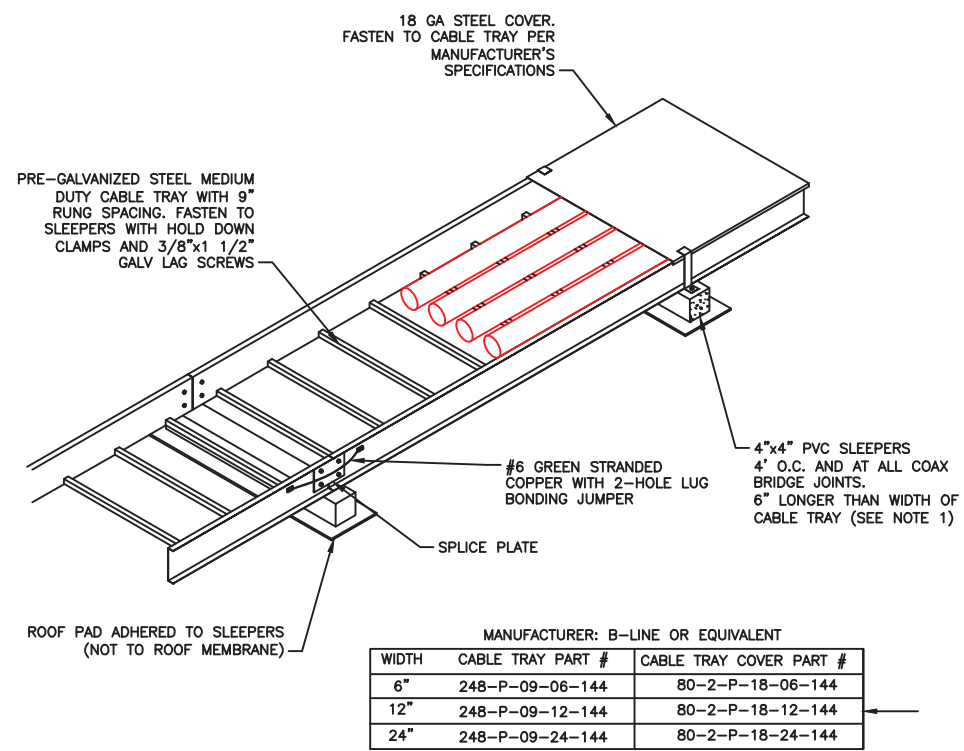
**SCREEN WALL DETAIL (PART ISO.)** 4  
SCALE: N.T.S. S-1



**SCREEN WALL DETAIL (PART ISO.)** 3  
SCALE: N.T.S. S-1



**SCREEN WALL DETAIL (TOP VIEW)** 2  
22x34 SCALE: 1/2"=1'-0"  
11x17 SCALE: 1/4"=1'-0"  
0 1'-0" 2'-0" 4'-0" 6'-0"



NOTE:  
1. EVERY OTHER PVC SLEEPER IS TO BE FILLED WITH CONCRETE.

**CABLE TRAY DETAIL** 5  
SCALE: N.T.S. S-1

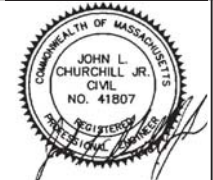


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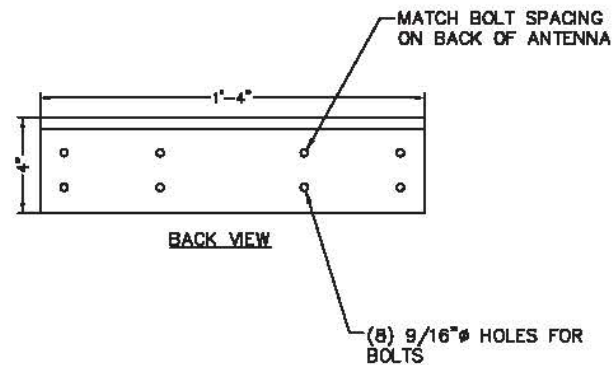
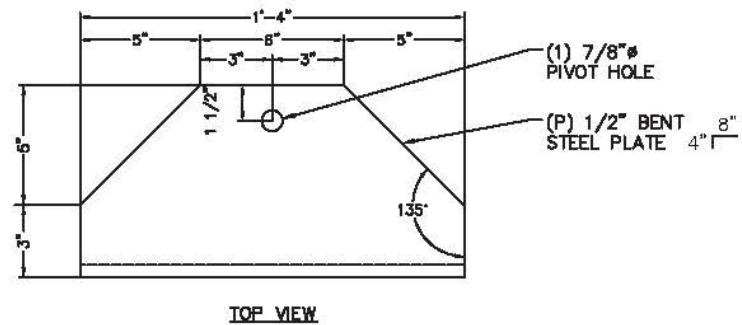
**SAI COMMUNICATIONS**  
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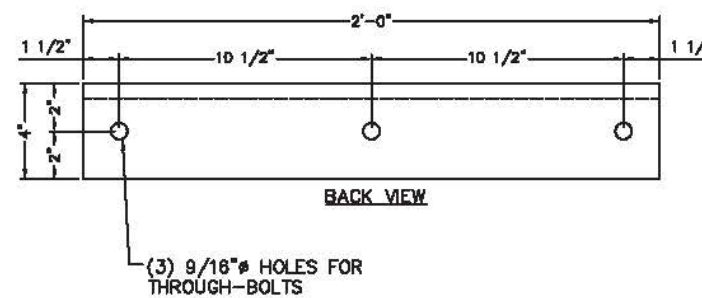
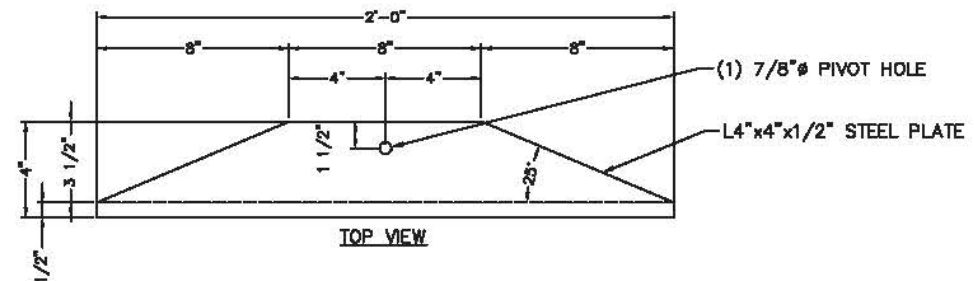


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NO.	DATE	REVISIONS	BY	CHK	T-MOBILE NORTON, MA 02766		
0	04/07/21	ISSUED FOR REVIEW	AB	JLC	STRUCTURAL DETAILS		
1	04/26/21	ISSUED FOR CONSTRUCTION	AB	JLC			
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					JCE #	SHEET NUMBER	REV
					5479	S-1	4



**CUSTOM ANTENNA BRACKET DETAIL** 1  
22x34 SCALE: 3"=1'-0"  
11x17 SCALE: 1-1/2"=1'-0" S-2



**CUSTOM WALL MOUNT ANGLE DETAIL** 2  
22x34 SCALE: 3"=1'-0"  
11x17 SCALE: 1-1/2"=1'-0" S-2

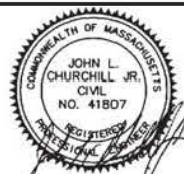


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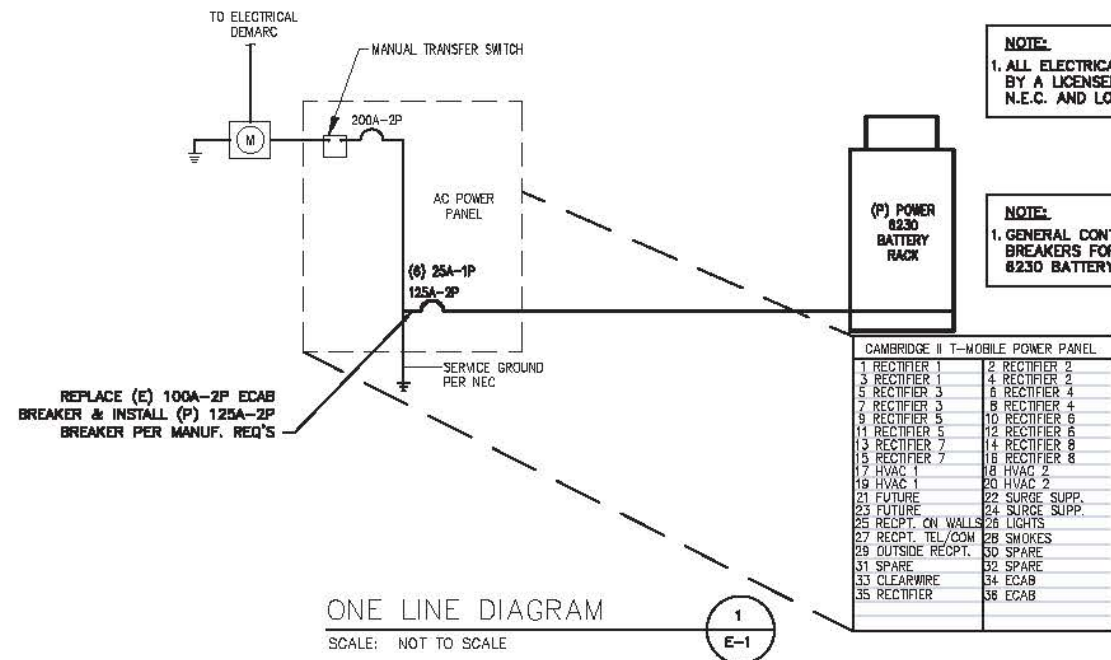
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0	04/07/21	ISSUED FOR REVIEW	AB	JLC	STRUCTURAL DETAILS		
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4	12/18/21	ISSUED FOR CONSTRUCTION	AB	JLC	5479	S-2	4



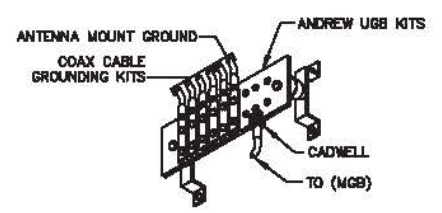
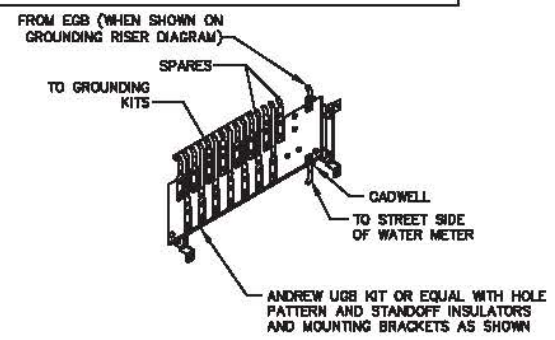
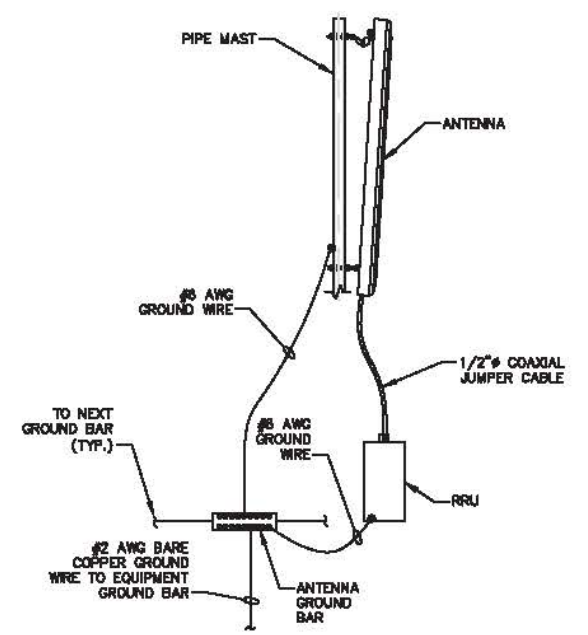
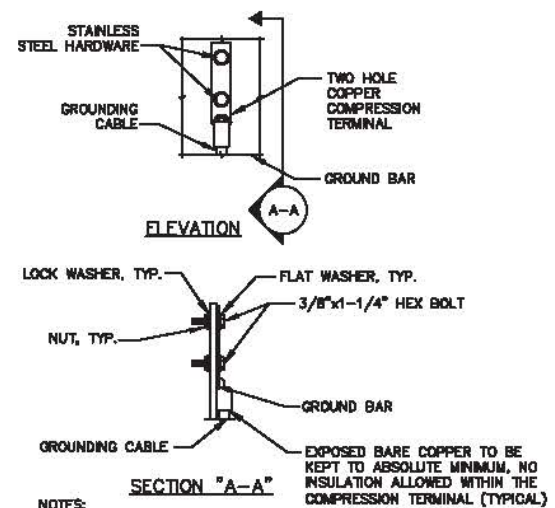
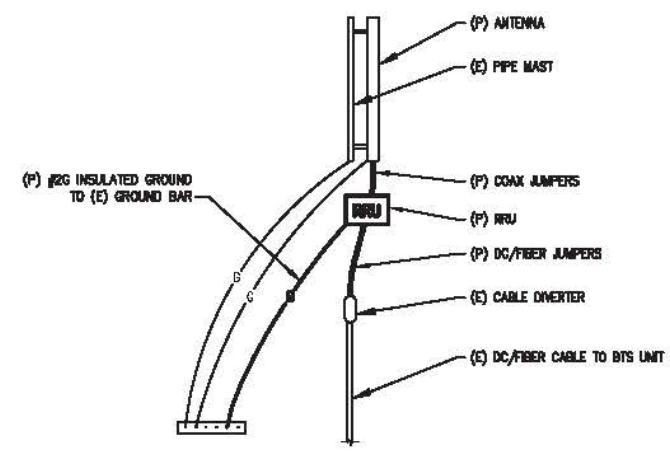
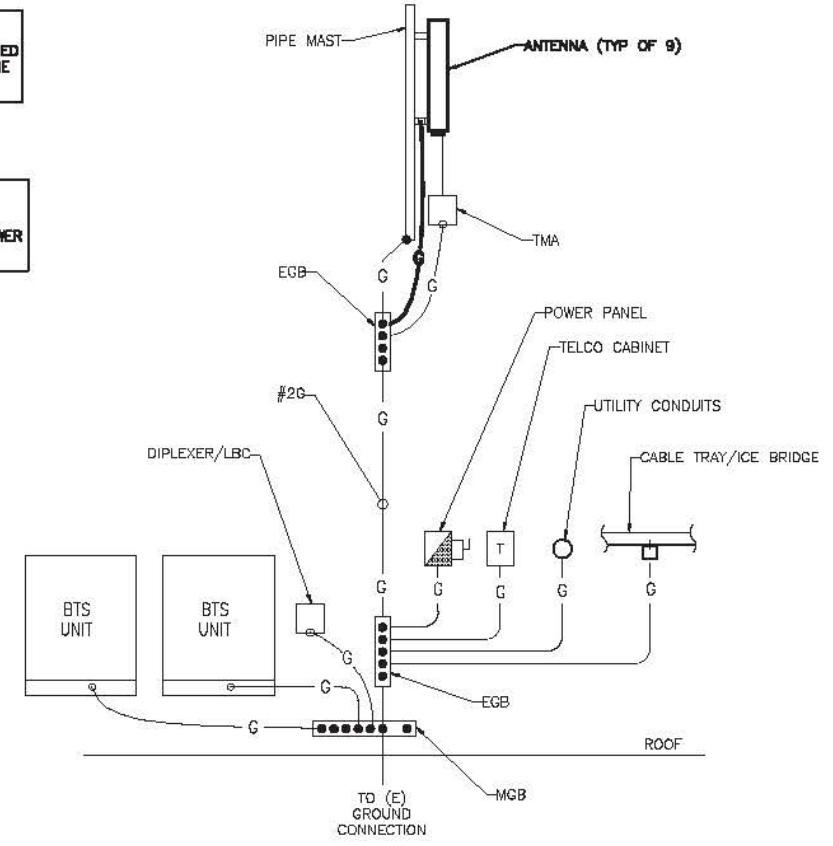
ELECTRICAL & GROUNDING NOTES

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
2. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
3. THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
4. GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
5. 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.
6. RIGID STEEL CONDUITS SHALL BE GROUNDED AT BOTH ENDS.
7. ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THIN INSULATION.
8. RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND LESSEE/LICENSEE CELL SITE PPG AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
9. 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.
10. ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
11. GROUNDING SHALL COMPLY WITH NEC ART. 250.
12. GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURER'S COAX CABLE GROUNDING KITS SUPPLIED BY LESSEE/LICENSEE.
13. USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
14. 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.
15. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING 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 GROUND RING.
16. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
17. APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
18. BOND ANTENNA MOUNTING BRACKETS, COAXIAL CABLE GROUND KITS, AND ALMA TO EGB PLACED NEAR THE ANTENNA LOCATION.
19. BOND ANTENNA EGBS AND MGB TO GROUND RING.
20. TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMS MINIMUM RESISTANCE REQUIRED.
21. BOND ANY METAL OBJECT WITHIN 7 FEET OF THE PROPOSED EQUIPMENT OR CABINET TO MASTER GROUND BAR.
22. 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.

NOTE:  
1. GENERAL CONTRACTOR TO INSTALL 25 AMP BREAKERS FOR EACH RECTIFIER PER THE POWER 8230 BATTERY RACK REQUIREMENTS.



March 7, 2022

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:	20 Sidney Street, Cambridge, MA 02139 Assessor's Map 69, lot 62 (the " <b>Property</b> ")
Applicant:	T-Mobile Northeast, LLC (" <b>Applicant</b> ")

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 Cambridgeport Revitalization Development District. To the extent that the Board determines that the requirements of Article 4 Section 4.32G.1 of the City of Cambridge Zoning Ordinance (the "**Ordinance**") apply, the use of the Property for a wireless telecommunications facility is permitted by special permit from the Board<sup>1</sup>. The Applicant's proposal satisfies the requirements for the grant of a special permit pursuant to Section 10-43 of the Ordinance.

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

The Applicant seeks to modify its existing wireless communications facility by replacing existing panel antennas with new like kind panel antennas, , and by replacing

---

<sup>1</sup> 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.

existing Remote Radio Units (RRUs) with new RRUs, as well as modifying existing ancillary equipment (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 a location where the signal is not obstructed or degraded by other buildings or by topographical features such as hills.

## **II. Project Description**

The Applicant’s existing Facility consists of three (3) sectors (Alpha, Beta and Gamma), with each sector having two (2) panel antennas and three (3) RRUs each. All of the antennas are façade mounted on the Building’s penthouse. The antennas associated with the Alpha and Beta sectors are concealed behind two (2) encloses painted to match the penthouse and out of view to the public. The Gamma sector is located on the facade of the penthouse and out of view to the public. As noted above, the Applicant proposes to modify its existing Facility currently operating on the Building by replacing six (6) panel antennas with nine (9) new panel antennas, by replacing nine (9) RRUs with six (6) new RRUs, and by modifying ancillary equipment on the rooftop and within an equipment room of the Building. The Alpha and Beta Sectors will continue to be concealed behind new enclosed, which will increase in size by approximately one (1’) foot in depth, and will be painted to match the façade of the penthouse. The Gamma sector will move southeast façade of the penthouse and will continue to be out of view. All of the antennas associated with the Gamma sector will be painted to match the color of the façade. Consequently, the visual change to the Applicant’s existing facility will be de minimus.

The Applicant’s proposal is consistent with the previous decisions of the Board for this facility, the first of which is dated August 28, 2003 (Case No. 8728) (the “**Original Decision**”), a second dated October 22, 2009 (Case No. 9853) (the “**2nd Decision**”) and a third decision dated July 26, 2018 (Case No. 016793-2018) (the “**3rd Decision**” and together with the Original Decision and 2<sup>nd</sup> Decision shall hereafter be referred to as the “**Decisions**”).



### 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 Cambridgeport Revitalization Development District is permitted by special permit. The Applicant's Proposed Facility further complies with the provisions set forth in Section 4.32(g), footnote 49 of the Ordinance:

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

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

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

T-Mobile investigated alternative sites in and around the defined geographic area within which its engineers determined that a facility must be located to fill the gap in service coverage and to function effectively within its network of existing and planned facilities. This is an existing location that is being upgraded with new technology to provide the necessary coverage to the subject area of the City of Cambridge. Therefore, the Proposed Facility in the Cambridgeport Revitalization Development District is necessary to close the coverage gap that is illustrated on the propagation maps submitted herewith. Consequently, T-Mobile is unable to close a gap in its wireless network without obtaining the requested relief under Section 6409 of the Spectrum act or a Special Permit to modify its existing wireless facility in the Cambridgeport Revitalization Development 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 no additional visual impact on the existing facility and Building. The Proposed Facility will be installed on the façade and of the penthouse of the Building, removing nine (5) of the existing antennas and adding nine (9) new antennas, and in conformity with the Decision.

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

- 3. Where it is proposed to erect such a facility in any residential zoning district, the extent to which there is a demonstrated public need for the facility at the proposed locations, the existence of alternative, functionally suitable sites in nonresidential locations, the character of the prevailing uses in the area, and the prevalence of other existing mechanical systems and equipment carried on or above the roof of nearby structures. The Board of Zoning Appeal shall grant a special permit to erect such a facility in a residential zoning district only upon a finding that nonresidential uses predominate in the vicinity of the proposed facility’s location and that the telecommunications facility is**

**not inconsistent with the character that does prevail in the surrounding neighborhood.**

The Proposed Facility is located in a nonresidential district. As such, the Applicant submits that nonresidential uses predominate in the area, and in keeping with the Decisions, respectfully requests that the Board find the same.

**B. The Applicant complies with the Special Permit Criteria set forth in Section 10-43 of the Ordinance<sup>2</sup>:**

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

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

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

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

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

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

---

<sup>2</sup> 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 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 Cambridgeport Revitalization Development 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,



Adam F. Braillard

Direct: 617-456-8153

Email: [abraillard@princelobel.com](mailto:abraillard@princelobel.com)

Enclosures



EXISTING STEALTH  
ENCLOSURE (SUBJECT)  
(PER. ALPHA SECTOR)



PREPARED FOR:



SAI COMMUNICATIONS  
12 INDUSTRIAL WAY  
SALEM, NH 03079

PREPARED BY:



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

SITE ID: 4BSS059A  
SITE NAME: CAMBRIDGE II  
ADDRESS: 20 SIDNEY STREET  
CAMBRIDGE, MA 02139

VIEW #1

EXISTING VIEW FROM  
THE NORTH, IN LAFAYETTE  
SQUARE ON MASS. AVENUE

PAGE: 2 / EX-1

DATE: 1-5-2022

DRAWN BY: AB

REV #: 2



PROPOSED STEALTH  
ENCLOSURE TO MATCH  
(E) BUILDING FACADE  
(PER. ALPHA SECTOR)



PREPARED FOR:



PREPARED BY:



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

SITE ID: 4BSS059A  
SITE NAME: CAMBRIDGE II  
ADDRESS: 20 SIDNEY STREET  
CAMBRIDGE, MA 02139

VIEW #1

PROPOSED VIEW FROM  
THE NORTH, IN LAFAYETTE  
SQUARE ON MASS. AVENUE

PAGE: 3 / PR-1

DATE: 1-5-2022

DRAWN BY: AB

REV #: 2





EXISTING STEALTH  
ENCLOSURE (SUBJECT)  
(PER. GAMMA SECTOR)

PREPARED FOR:



PREPARED BY:



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

SITE ID: 4BSS059A  
SITE NAME: CAMBRIDGE II  
ADDRESS: 20 SIDNEY STREET  
CAMBRIDGE, MA 02139

VIEW #2

EXISTING VIEW FROM  
THE SOUTHWEST, SIDE OF  
BUILDING 45 SIDNEY STREET

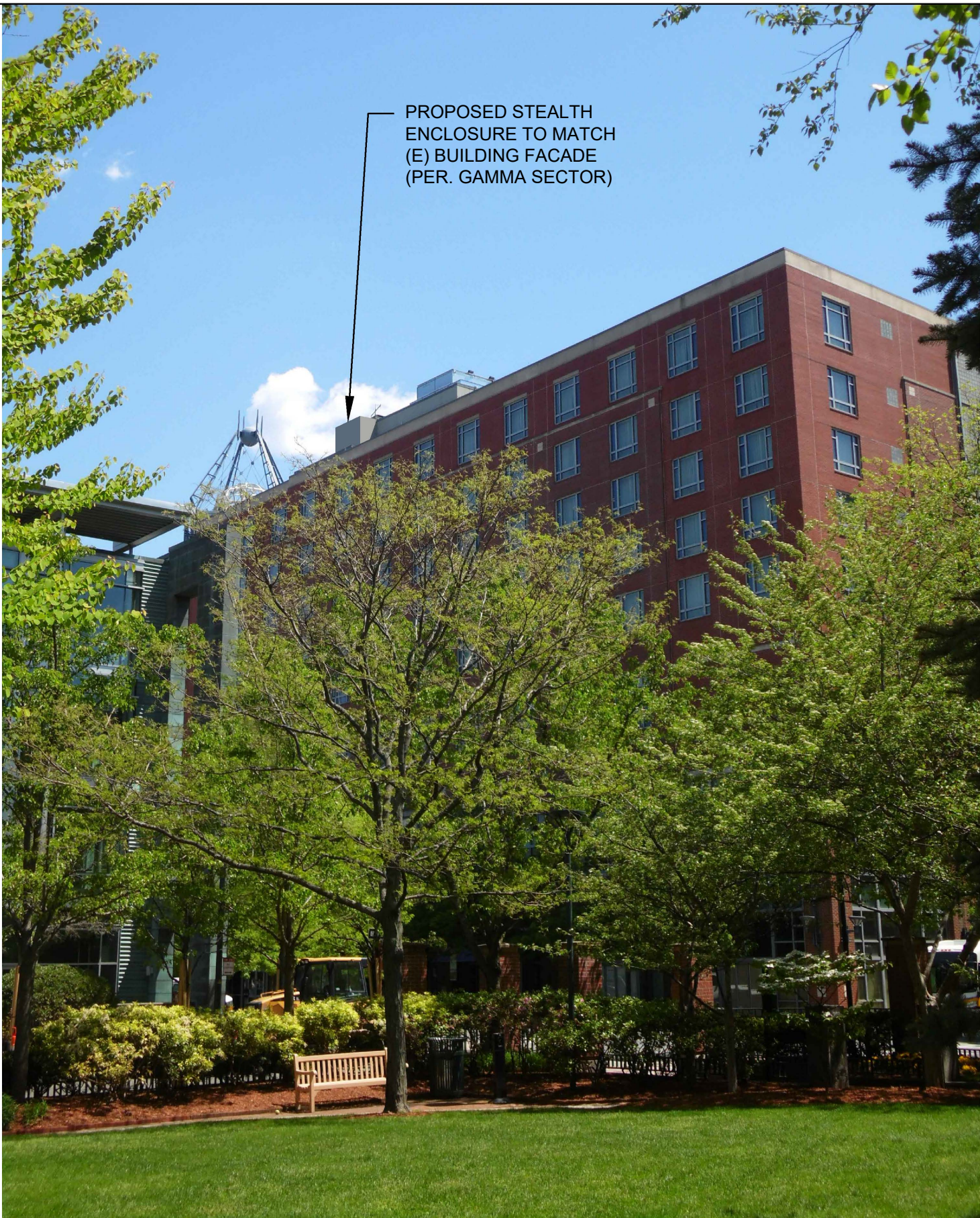
PAGE: 6 / EX-3

DATE: 1-5-2022

DRAWN BY: AB

REV #: 2





PROPOSED STEALTH  
ENCLOSURE TO MATCH  
(E) BUILDING FACADE  
(PER. GAMMA SECTOR)

PREPARED FOR:



SAI COMMUNICATIONS  
12 INDUSTRIAL WAY  
SALEM, NH 03079

PREPARED BY:



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

SITE ID: 4BSS059A  
SITE NAME: CAMBRIDGE II  
ADDRESS: 20 SIDNEY STREET  
CAMBRIDGE, MA 02139

VIEW #2

PROPOSED VIEW FROM  
THE SOUTHWEST, SIDE OF  
BUILDING 45 SIDNEY STREET

PAGE: 7 / PR-3

DATE: 1-5-2022

DRAWN BY: AB

REV #: 2



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# 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 STREET  
BELLEVUE, WA 98006

<b>Call Sign</b> WQIZ578	<b>File Number</b> 0008577570
<b>Radio Service</b> WY - 700 MHz Lower Band (Blocks A, B & E)	

FCC Registration Number (FRN): 0001565449

<b>Grant Date</b> 05-30-2019	<b>Effective Date</b> 05-30-2019	<b>Expiration Date</b> 06-13-2029	<b>Print Date</b> 05-31-2019
<b>Market Number</b> BEA003	<b>Channel Block</b> A	<b>Sub-Market Designator</b> 0	
<b>Market Name</b> Boston-Worcester-Lawrence-Lowe			
<b>1st Build-out Date</b>	<b>2nd Build-out Date</b> 06-13-2019	<b>3rd Build-out Date</b>	<b>4th Build-out Date</b>

#### Waivers/Conditions:

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

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:** WQIZ578

**File Number:** 0008577570

**Print Date:** 05-31-2019

**700 MHz Relicensed Area Information:**

<b>Market</b>	<b>Market Name</b>	<b>Buildout Deadline</b>	<b>Buildout Notification</b>	<b>Status</b>
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# **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

<b>Call Sign</b> WQZL852	<b>File Number</b>
<b>Radio Service</b> WT - 600 MHz Band	

FCC Registration Number (FRN): 0001565449

<b>Grant Date</b> 06-14-2017	<b>Effective Date</b> 06-15-2017	<b>Expiration Date</b> 06-14-2029	<b>Print Date</b>
<b>Market Number</b> PEA007	<b>Channel Block</b> B	<b>Sub-Market Designator</b> 0	
<b>Market Name</b> Boston, MA			
<b>1st Build-out Date</b> 06-14-2023	<b>2nd Build-out Date</b> 06-14-2029	<b>3rd Build-out Date</b>	<b>4th Build-out Date</b>

**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.

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**Licensee Name:** T-MOBILE LICENSE LLC

**Call Sign:** WQZL852

**File Number:**

**Print Date:**

**700 MHz Relicensed Area Information:**

<b>Market</b>	<b>Market Name</b>	<b>Buildout Deadline</b>	<b>Buildout Notification</b>	<b>Status</b>
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# 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

<b>Call Sign</b> WQZL853	<b>File Number</b>
<b>Radio Service</b> WT - 600 MHz Band	

FCC Registration Number (FRN): 0001565449

<b>Grant Date</b> 06-14-2017	<b>Effective Date</b> 06-15-2017	<b>Expiration Date</b> 06-14-2029	<b>Print Date</b>
<b>Market Number</b> PEA007	<b>Channel Block</b> C	<b>Sub-Market Designator</b> 0	
<b>Market Name</b> Boston, MA			
<b>1st Build-out Date</b> 06-14-2023	<b>2nd Build-out Date</b> 06-14-2029	<b>3rd Build-out Date</b>	<b>4th Build-out Date</b>

**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.

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**Licensee Name:** T-MOBILE LICENSE LLC

**Call Sign:** WQZL853

**File Number:**

**Print Date:**

**700 MHz Relicensed Area Information:**

<b>Market</b>	<b>Market Name</b>	<b>Buildout Deadline</b>	<b>Buildout Notification</b>	<b>Status</b>
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# **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

<b>Call Sign</b> WRAM889	<b>File Number</b> 0008585885
<b>Radio Service</b> CW - PCS Broadband	

**FCC Registration Number (FRN):** 0001565449

<b>Grant Date</b> 05-30-2019	<b>Effective Date</b> 05-30-2019	<b>Expiration Date</b> 06-30-2029	<b>Print Date</b> 05-31-2019
<b>Market Number</b> BTA201	<b>Channel Block</b> C	<b>Sub-Market Designator</b> 4	
<b>Market Name</b> Hyannis, MA			
<b>1st Build-out Date</b>	<b>2nd Build-out Date</b>	<b>3rd Build-out Date</b>	<b>4th Build-out Date</b>

**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:** 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:**

<b>Market</b>	<b>Market Name</b>	<b>Buildout Deadline</b>	<b>Buildout Notification</b>	<b>Status</b>
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**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

<b>Call Sign</b> KNLH311	<b>File Number</b> 0007725350
<b>Radio Service</b> CW - PCS Broadband	

**FCC Registration Number (FRN):** 0001565449

<b>Grant Date</b> 06-08-2017	<b>Effective Date</b> 06-08-2017	<b>Expiration Date</b> 06-27-2027	<b>Print Date</b> 06-09-2017
<b>Market Number</b> BTA201	<b>Channel Block</b> D	<b>Sub-Market Designator</b> 0	
<b>Market Name</b> Hyannis, MA			
<b>1st Build-out Date</b> 06-27-2002	<b>2nd Build-out Date</b>	<b>3rd Build-out Date</b>	<b>4th Build-out Date</b>

**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:** 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 Copy

**Licensee Name:** T-MOBILE LICENSE LLC

**Call Sign:** KNLH311

**File Number:** 0007725350

**Print Date:** 06-09-2017

**700 MHz Relicensed Area Information:**

<b>Market</b>	<b>Market Name</b>	<b>Buildout Deadline</b>	<b>Buildout Notification</b>	<b>Status</b>
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**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

<b>Call Sign</b> WPOJ753	<b>File Number</b> 0008585870
<b>Radio Service</b> CW - PCS Broadband	

**FCC Registration Number (FRN):** 0001565449

<b>Grant Date</b> 05-30-2019	<b>Effective Date</b> 05-30-2019	<b>Expiration Date</b> 06-30-2029	<b>Print Date</b> 05-31-2019
<b>Market Number</b> BTA229	<b>Channel Block</b> C	<b>Sub-Market Designator</b> 3	
<b>Market Name</b> Kingsport-Johnston City, TN-Br			
<b>1st Build-out Date</b> 06-30-2004	<b>2nd Build-out Date</b>	<b>3rd Build-out Date</b>	<b>4th Build-out Date</b>

**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:**

<b>Market</b>	<b>Market Name</b>	<b>Buildout Deadline</b>	<b>Buildout Notification</b>	<b>Status</b>
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03



# City of Cambridge

MASSACHUSETTS

## BOARD OF ZONING APPEAL

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

2003 NOV -6 A 11:38

OFFICE OF THE CITY CLERK  
CAMBRIDGE, MASSACHUSETTS



Bk: 41601 Pg: 177

Recorded: 12/12/2003

Document: 00000520 Page: 1 of 3

CASE NO: 8728

LOCATION: 20 Sidney Street  
Cambridge, MA

CambridgePort Revitalization  
Development District

PETITIONER: Nextel Communications - c/o Rossana Ferrante  
17610-96

PETITION: Special Permit: To install 12 antenna panels to the exterior of existing  
penthouse and also locate radio equipment on the rooftop.

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

DATE OF PUBLIC NOTICE: August 8, 2003 and August 15, 2003

DATE OF PUBLIC HEARING: August 28, 2003

MEMBERS OF THE BOARD: THOMAS SIENIEWICZ - CHAIR  
ARCH HORST  
JOHN O'CONNELL  
SUSAN SPURLOCK  
KEEFE B. CLEMONS

✓  
\_\_\_\_\_  
\_\_\_\_\_  
✓  
✓

ASSOCIATE MEMBERS: JENNIFER PINCK - VICE-CHAIR  
MARC TRUANT  
SUSAN CONNELLY  
REBECCA TEPPER

✓  
✓  
\_\_\_\_\_  
\_\_\_\_\_

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 12/12/03 12:14:16 520 78.00

Case No. 8728  
Location: 20 Sidney Street  
Petitioner: Nextel Communications c/o Rossana Ferrante

On October 9, 2003, Petitioner's agents John Kovacs, Joseph Sutherland, and Joseph Guidebeck appeared before the Board of Zoning Appeal requesting a special permit to install 12 antenna panels to the exterior of an existing penthouse and to locate radio equipment on the rooftop. The Petitioner submitted plans and photographs.

Board member Clemons stated that he was an employee of Verizon, a competitor of the Petitioner, and offered to recuse himself should the Petitioner wish. The Petitioner's agents stated that they had no objections.

Mr. Kovacs stated that on September 16, 2003, in response to an earlier correspondence from the Planning Board, the Petitioner appeared before the Planning Board with some revisions to its initial proposal and thereby won the support of the Planning Board. Mr. Kovacs stated that the installation was not in a residential district. Mr. Kovacs then discussed the need for this installation and described its camouflaging. He stated that the array would be visited only once a month by a maintenance technician.

The Chair noted the required FCC license in the application.

After discussion, the Chair moved that the Board find that no significant traffic increase will be in effect due to the installation of this antennae. The Chair moved that the Board grant the special permit on the following conditions:

1. that the work conform with the design as detailed in drawings and photosimulations submitted in support of this application, created by Turning Mill Consultants and stamped by the registered engineer James P. Stroke, license number 20068, consisting of sheets T1, C1, C2, A1, and A2, with additional notes made by the Vice Chair in green felt pen on the last sheet of the submittal, indicating the location of the fiberglass enclosure,
2. that should the equipment be abandoned or unused or should the lease expire, then it shall be removed from the premises.

The five member Board voted unanimously in favor of granting the special permit (Sieniewicz, Pinck, Spurlock, Clemons and Truant) 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

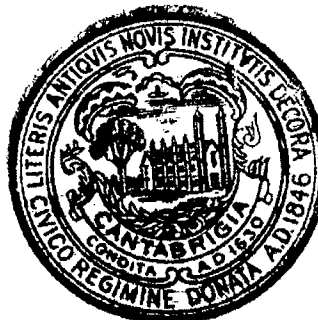
Attest: A true and correct copy of decision filed with the offices of the City Clerk and Planning Board on 11/16/03 by Jessie P. Johnson Clerk.

Twenty days have elapsed since the filing of this decision.

No appeal has been filed ✓

Appeal has been filed and dismissed or denied.

Date: DEC 12 2003 D. Margaret Cherry City Clerk.







*[Handwritten signature]*

# City of Cambridge

MASSACHUSETTS

## BOARD OF ZONING APPEAL

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



Bk: 54668 Pg: 565 Doc: DECIS  
Page: 1 of 4 05/11/2010 02:21 PM

CASE NO: 9853

CRDD

LOCATION: 20 Sidney Street  
Cambridge, MA

PETITIONER: Clear Wireless, LLC  
C/o Adam F. Braillard, Esq.

PETITION: Special Permit: To add two (2) wireless back hall dish antennas and 1 radio equipment to the Applicant's existing wireless communication facility currently operating on the rooftop of the building.

VIOLATIONS: Art. 4.000, Sec. 4.32.G.1 (Footnote 49) (Telecommunication Facility)  
Art. 10.000, Sec. 10.40 (Special Permit).

DATE OF PUBLIC NOTICE: October 2 & 9, 2009

DATE OF PUBLIC HEARING: October 22, 2009

### MEMBERS OF THE BOARD:

CONSTANTINE ALEXANDER - CHAIR  
TIMOTHY HUGHES - VICE CHAIR  
BRENDAN SULLIVAN  
THOMAS SCOTT

*[Handwritten checkmarks]*

### ASSOCIATE MEMBERS:

CHRISTOPHER CHAN  
MAHMOOD R. FIROUZBAKHT  
DOUGLAS MYERS  
SLATER W. ANDERSON  
TAD HEUER

*[Handwritten checkmarks]*

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.

Case No. 9853  
Location: 20 Sidney Street  
Petitioner: Clear Wireless LLC- c/o Adam Brillard, Esq.

On December 17, 2009, Petitioner's attorney Adam Brillard appeared before the Board of Zoning Appeal requesting a special permit in order to add two wireless back hall dish antennas and one radio equipment shelter to the existing wireless communication facility operating on the roof top. The Petitioner requested relief from Article 4, Section 4.32.G.1 of the Cambridge Zoning Ordinance ("Ordinance"). The Petitioner submitted application materials including information about the project, plans, and photographs.

Mr. Brillard stated that his client currently had a wireless communication installation on the building, under an existing special permit. He stated that the proposal was to add two two-foot diameter backhaul dish antennas to the installation. He stated that these dishes would allow for Wi-Max or 4 G service and would be painted to match their surroundings.

The Chair read a letter of support from the Planning Board. 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 for relief in order to add two wireless back hall dish antennas and one radio equipment shelter to the existing wireless communication facility operating on the roof top based on the finding that the petitioner is a duly FCC licensed telecommunications carrier as witnessed by materials submitted to the file. The Chair moved that the Board find that, to the extent possible, the visual impact of the elements proposed will be minimized by coloring the new equipment to match the color of the area behind which they will be mounted. The Chair moved that the Board find that the building is not located in a residential district. The Chair moved that the Board find that the petitioner cannot otherwise meet the requirements of the Ordinance and that the proposed installation will not cause congestion, hazard or substantial change in the established neighborhood character, because the equipment on the rooftop will not create congestion or change the established neighborhood character. The Chair moved that the Board find that telecommunications equipment exists on the roof already and that this installation is simply a supplement to it. The Chair moved that the Board find that there is no evidence in the record or in the community at large that telecommunications facilities of this sort create hazard to the occupants of the city. The Chair moved that the Board find that the continued operation of adjacent uses would not be affected by the antenna because the area is generally non-residential and telecommunications equipment is not unusual in this area. The Chair moved that the Board find that there will be no nuisance or hazard created to the detriment of the health, safety and welfare of the occupants of the city. The Chair moved that the Board find that the installation will be mounted on the roof in an area where sight lines and visual impact will be minimized. The Chair moved that the Board find that the

proposed use will not impair the integrity of the district or adjoining district, because the district is non-residential and suitable for telecommunications equipment. The Chair moved that the Board grant the special permit on the following conditions:


1. that the work proceed in accordance with a series of plans submitted by the petitioner, the first page being titled T-1 and initialed by the Chair,
2. that the work proceed in accordance with and be consistent with the photo simulations submitted by the petitioner, prepared by Bay State Design dated August 2009, with the first page being initialed by the Chair, with the understanding that these photo simulations represent the only visual impact of this proposed work,
3. that the work proceed in a way that the visual impact of the new equipment will be minimized by adopting the coloration of the adjoining or background material, and
4. that if the antenna is in any way discontinued or not used for a period of six months, it be promptly removed and the building be restored, as much as possible, to its current condition.

The five member Board voted unanimously in favor of granting the special permit (Alexander, Hughes, Sullivan, Scott, and Heuer) with the above conditions. Therefore, the special permit is granted.

The Board based its decision upon all the information presented, the above findings and upon the following:

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

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

  
Constantine Alexander, Chair

Attest: A true and correct copy of decision filed with the offices of the City Clerk and Planning Board on 2/10/10 by Maia Pacheco, Clerk.

Twenty days have elapsed since the filing of this decision.

No appeal has been filed ✓.

Appeal has been filed and dismissed or denied.

Date: APRIL 6, 2010 B. Margaret Chung City Clerk.





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

2018 SEP 12 PM 12:04

OFFICE OF THE CITY CLERK  
CAMBRIDGE, MASSACHUSETTS

CASE NO: BZA-016793-2018

CRDD



2018 00154137

Bk: 71712 Pg: 482 Doc: DECIS  
Page: 1 of 6 10/05/2018 10:09 AMLOCATION: 20 Sidney St  
Cambridge, MA 02139

PETITIONER: Clear Wireless D/B/A as Sprint - C/O Simon J. Brighenti, Jr., JD

PETITION: Special Permit: To replace existing telecommunications equipment with upgraded equipment. There will be minimal to no impact on existing conditions.

## VIOLATION :

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

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

Article 10.000 Section 10.40 Special Permit).

Article 15.000 Section (CambridgePort Revitalization Development Dist.).

66438-302

DATE OF PUBLIC NOTICE: July 12, 2018 and July 19, 2018

DATE OF PUBLIC HEARING: July 26, 2018;

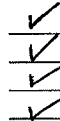
## MEMBERS OF THE BOARD:

CONSTANTINE ALEXANDER - CHAIR

BRENDAN SULLIVAN - VICE-CHAIR

JANET O. GREEN

ANDREA A. HICKEY



## ASSOCIATE MEMBERS:

SLATER W. ANDERSON

ALISON HAMMER

JIM MONTEVERDE

GEORGE BEST

LAURA WERNICK



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.

Case No. BZA-016793-2018  
Location: 20 Sidney Street  
Petitioner: Clear Wireless D/B/A Sprint – c/o Simon Brighenti, JD

On July 26, 2018, Petitioner's attorney Simon Brighenti appeared before the Board of Zoning Appeal requesting a special permit in order to replace existing telecommunications equipment with upgraded equipment. The Petitioner requested relief under Article 4, Sections 4.32.G.1 and 4.40 and Article 15 of the Cambridge Zoning Ordinance ("Ordinance"). The Petitioner submitted materials in support of the application including information about the project, plans, and photographs.

Mr. Brighenti stated that the proposal was to swap out six existing antennas with six upgraded antennas and to add an equipment cabinet to the existing rooftop installation. He said that the new cabinet would be inside an existing shelter and so along with a simple antenna swap, there would be no change to the visual impact of the installation.

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

After discussion, the Chair moved that the Board make the following findings based upon the application materials submitted and all evidence before the Board and that based upon the findings the Board grant the requested relief as described in the Petitioner's submitted materials and the evidence before the Board: that the Board find that the requirements of the Ordinance could not be met without the Special Permit; that the Board find that traffic generated or patterns of access or egress resulting from what was proposed would not cause congestion, hazard, or substantial change in established neighborhood character; that the Board find that the continued operation of or the development of adjacent uses as permitted by the Ordinance would not be adversely affected by what was proposed; that the Board find that no nuisance or hazard would be created to the detriment of the health, safety, and/or welfare of the occupant of the proposed use or the citizens of the City; that the Board find that generally what was proposed would not impair the integrity of the district or adjoining district or otherwise derogate from the intent and purpose of the Ordinance; that the Board find that the proposed modification would not substantially change the physical dimensions of the existing wireless tower or base station at such facility within the meaning of Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012, also known as The Spectrum Act.

The Chair further moved that based upon all the information presented the Board grant the requested relief as described in the Petitioner's submitted materials and the evidence before the Board on the following conditions:

1. that the work proceed in accordance with plans submitted by the petitioner, as initialed by the Chair,
2. that upon completion of the work, the physical appearance and visual impact of the proposed work be consistent with the photo simulations submitted by the petitioner and initialed by the Chair,
3. that the petitioner at all times maintain the proposed work so that its physical appearance and visual impact remain consistent with the photo simulations previously referred to,
4. that should the petitioner cease to utilize the equipment approved tonight for a continuous period of six months or more, it promptly thereafter remove such equipment and restore the building on which it was located to its prior condition and appearance to an extent reasonably practicable,
5. that the petitioner continue to comply with the conditions imposed by the Board with respect to previous Special Permits granted to the petitioner with regard to the site in question,
6. that inasmuch as the health effects of the transmission of electromagnetic energy waves is a matter of ongoing societal concern and scientific study, the Special Permit is also subject to the following conditions:
  - A. that the petitioner shall file with the Inspectional Services Department each report it files with the federal authorities regarding electromagnetic energy wave emissions emanating from all of the petitioner's equipment on the site. Each such report shall be filed with the Inspectional Services Department no later than ten business days after the report has been filed with the federal authorities. Failure to timely file any such report with the Inspectional Services Department shall ipso facto terminate the Special Permit granted tonight.
  - B. that in the event that at any time federal authorities notify the petitioner that its equipment on the site, including, but not limited to the special permit granted tonight, fails to comply with the requirements of law or governmental regulations, whether with regard to the emissions of electromagnetic energy waves or otherwise, the petitioner, within ten business days of receipt of such notification of such failure, shall file with the Inspectional Services Department a report disclosing in reasonable detail that such failure has occurred and the basis for such claimed failure. The special permit shall ipso facto terminate if any of the petitioner's federal licenses are suspended, revoked, or terminated.
  - C. that to the extent a special permit has terminated pursuant to the foregoing paragraphs A and B, the petitioner may apply to this Board for a new special permit provided that the public notice containing such application discloses in reasonable detail that the application has been

filed because of a termination of the special permit pursuant to paragraphs A or B above. Any such new application shall not be deemed a repetitive petition and therefore will not be subject to the two-year period during which repetitive petitions may not be filed.

- D. that within ten business days after receipt of a Building Permit for installation of equipment subject to this petition, the petitioner shall file with the Inspectional Services Department a sworn Affidavit of the person in charge of the installation of equipment by the petitioner of the geographical area that includes Cambridge. Stating that A, he or she has such responsibility, and B that the equipment being installed pursuant to the special permit will comply with all federal safety rules and will be situated and maintained in locations with appropriate barricades and other protections, such that individuals, including nearby residents and occupants of nearby structures, will be sufficiently protected from excessive radio frequency radiation under federal law.

The five-member Board voted unanimously in favor of granting the special permit with the above conditions (Alexander, Sullivan, Green, Hickey, Hammer). Therefore, the special permit is granted as conditioned.



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



Constantine Alexander, Chair

ATTEST: A true and accurate copy of the above decision has been filed on 9-12-18 with the Offices of the City Clerk and the Planning Board by Maria J. Addeo, duly authorized representative of the Board of Zoning Appeal.

Twenty days have elapsed since the above decision was filed in the office of the City Clerk and:

☒ no appeal has been filed; or

☐ an appeal has been filed within such twenty days.

The person exercising rights under a duly appealed special permit does so at risk that a court will reverse the permit and that any construction performed under the permit may be ordered undone. This certification shall in no event terminate or shorten the tolling, during the pendency of any appeals, of the periods provided under the second paragraph of G.L. c. 40A, §6.

Date: 10/5/18 Donna P. Kopy, City Clerk

Appeal has been dismissed or denied.

Date: \_\_\_\_\_, City Clerk



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

**NOTICE OF DECISION**

DECISION FILED WITH THE OFFICE OF THE CITY CLERK ON **September 12, 2018**

Any person aggrieved by a decision of the Board of Zoning Appeal may appeal to the Superior Court or Land Court. Appeals, if any, shall be made pursuant to Section 17, Chapter 40A, Massachusetts General Laws and shall be filed within twenty calendar days from the above date, and a copy thereof shall be filed with the Cambridge City Clerk's office by that same date

PREMISES: 20 Sidney St  
Cambridge, MA 02139

PETITIONER: Clear Wireless D/B/A as Sprint - C/O Simon J. Brighenti, Jr., JD

PETITION: Special Permit: To replace existing telecommunications equipment with upgraded equipment. There will be minimal to no impact on existing conditions.

DECISION: **Approved**

CASE NO: BZA-016793-2018

**\*For full details, please refer to the decision available at Inspectional Services Dept.**

March 7, 2022

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 **20 Sidney Street, Cambridge, MA 02139.**

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 20 Sidney Street, Cambridge, MA 02139.

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 an 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-four feet and six inches (124’-6”) high and presently contains wireless facilities. The existing Base Station meets the Federal Communications Commission (“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 also is 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 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.”

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-four feet and six inches (124’-6”) 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 at a height of one hundred and twenty feet and six inches (120’- 6”).
2. *The modifications to the Transmission Equipment do not protrude from the edge of the support structure by more than six (6) feet.*
  - a. The proposed replacement and additional antennas will only protrude from the edge of the building by an additional one (1’) foot, for a total of 3’-4” from the façade of the building, and therefore the facility will not exceed the six (6) foot limitation. The majority of the antennas will be concealed within stealth enclosed façade mounted to the penthouse of the Building. As such,

the proposed modification will not protrude from the edge of the building by more than six (6) feet.

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. There are currently two (2) equipment cabinets existing at the Base Station, and the Applicant proposes to install one (1) additional equipment cabinet.
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, dated August 28, 2003 (Case No. 8728) (the “Original Decision”) and a second decision dated October 22, 2009 (Case No. 9853) (the “2nd Decision”), and a 3rd decision dated July 26, 2018 (Case No. 016793-2018) (the “3rd Decision” and together with the Original Decision and 2nd Decision shall hereafter be referred to as the “Decisions), the existing panel antennas are located in the preferred location on the building. The replacement of the existing six (6) antennas with nine (9) new antennas will not defeat the intent of the existing design, as the majority of the new antennas will be installed at the same locations as the existing antennas and concealed behind stealth enclosures, and all remaining antennas will be painted to match the existing Building, Furthermore, all proposed antennas will be integrated into the building to the extent possible. 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 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 20 Sidney Street, 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](mailto:abraillard@princelobel.com)

Enclosures

## **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: 20 Sidney Street

## Existing Facilities

The Existing Facility is comprised of six (6) panel antenna all 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: 124'-6" (feet)

Height above ground level of the tallest point of the existing base station after the installation of the *proposed* equipment: -124'-6" (feet)

- 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 ☐ N

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

☐ 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 7th day of March, 2022.



\_\_\_\_\_  
Signature

Adam F. Braillard, Esq. , Attorney for Applicant

Name & Title

## Eligible Facilities Request (EFR) Application Form

[Attach this EFR form to the local jurisdiction form used to process cell site modifications.]

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:

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List Each Piece of Transmission Equipment that will be Removed:

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

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List Cabinets that will be Removed at the Site:

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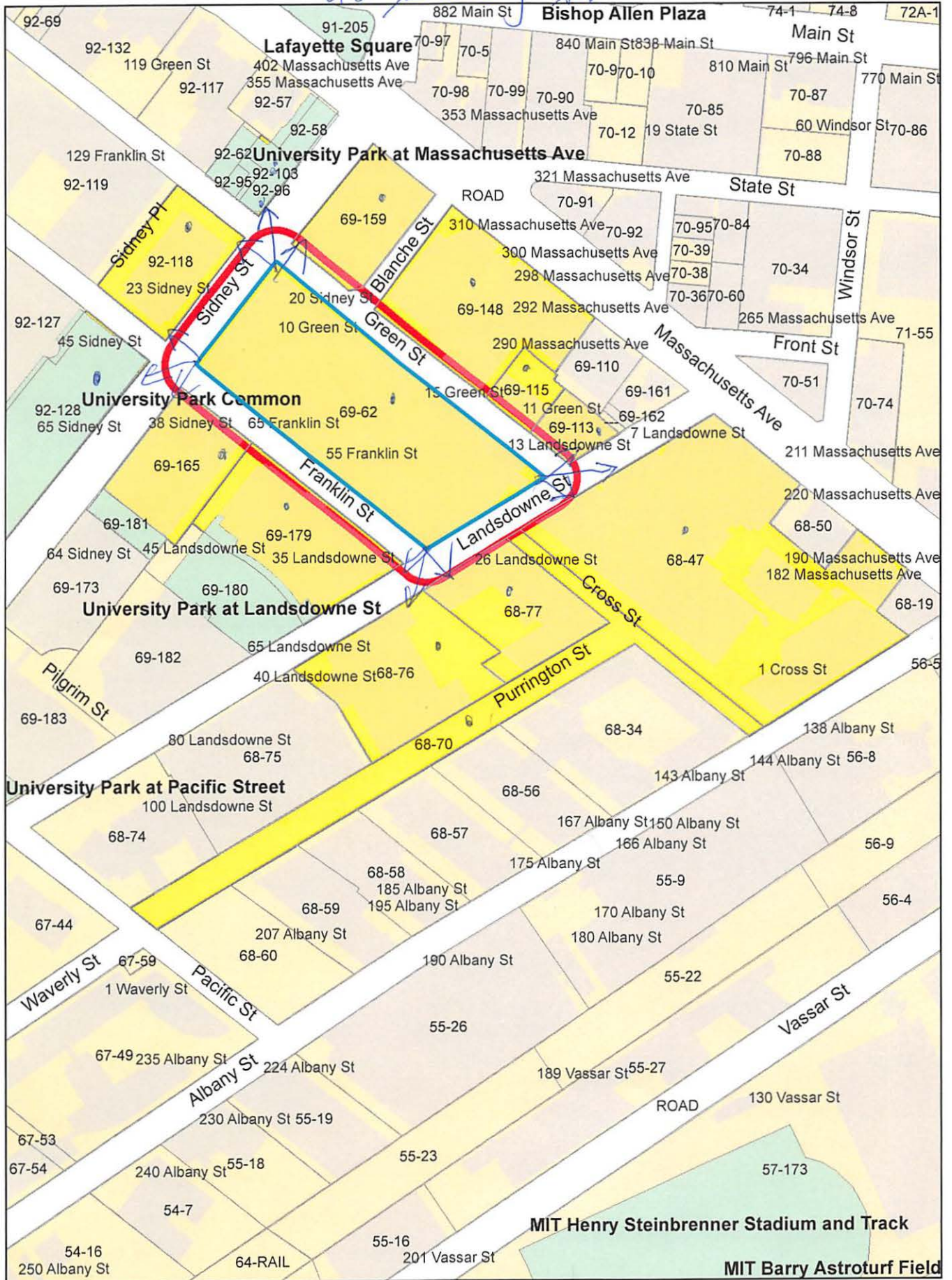
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20 Sidney St.



*20 Sidney St.*

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