

BZA APPLICATION FORM

GENERAL INFORMATION

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

Special Permit: X Variance: Appeal:

PETITIONER: T-Mobile Northeast LLC

PETITIONER'S ADDRESS: Prince Lobel Tye, LLP, Attn. Ricardo M. Sousa, Esq., One International Place, Suite 3700, Boston, MA

LOCATION OF PROPERTY: 195 Binney Street

TYPE OF OCCUPANCY: Telecommunications ZONING DISTRICT: Industry A

REASON FOR PETITION:

- | | |
|---|------------------------|
| <u> </u> Additions | <u> </u> New Structure |
| <u> </u> Change in Use/Occupancy | <u> </u> Parking |
| <u> </u> Conversion to Addi'l Dwelling Unit's | <u> </u> Sign |
| <u> </u> Dormer | <u> </u> Subdivision |
| <u> X </u> Other: <u> Wireless Communications Facility </u> | |

DESCRIPTION OF PETITIONER'S PROPOSAL:

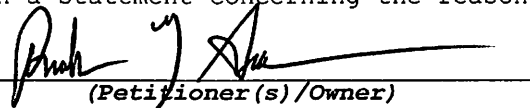
The Applicant proposes to construct and operate a new Wireless Communication Facility which will consist of nine (9) panel antennas and six (6) Remote Radio Head Units, which will be completely concealed within three (3) faux chimneys installed on the roof of the existing building on the property. The proposed faux chimneys will be painted to match the existing building. Each proposed faux chimney will house three (3) panel antennas and two (2) remote radio head units

SECTIONS OF ZONING ORDINANCE CITED:

- Article 4.00 Section 4.32 (g)(1) Utilities - Telephone Exchange
- Article 4.00 Section 4.40 - Footnote 49 - Telecommunications Facility
- Article 10.00 Section 10.40 - Special Permit

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

Original Signature(s) :



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

 (Print Name)

Address: One International Place, Suite 3700

Boston, MA 02110

Tel. No.: 617-456-8123

E-Mail Address: rsousa@princelobel.com

Date: June 9, 2017

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.

ASN Kendell Square, LLC, a Delaware Limited Liability Company
(OWNER)

Address: 195 Binney Street Cambridge MA 02142

State that I/We own the property located at 195 Binney Street Cambridge MA 02142, which is the subject of this zoning application. Special Permit for a Wireless Facility
The record title of this property is in the name of

ASN Kendell Square LLC, A Delaware Limited Liability Company

Kathleen B. Austin

*Pursuant to a deed of duly recorded in the date 11/30/2005, Middlesex South County Registry of Deeds at Book 46575, Page 268; 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.

State of Illinois, County of Cook

The above-name KATHLEEN B. AUSTIN personally appeared before me, this 31 of MAY, 2017, and made oath that the above statement is true.

Paulette McKinley Notary

My commission expires 3/19/19 (Notary Seal)



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

Notary Public, State of Illinois
Paulette McKinley
My Commission Expires March 10, 2019
"OFFICIAL SEAL"

June 9, 2017

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

Re: Application for Special Permit
Property Address: 195 Binney Street
Assessor's Map 28, Lot 33 (the "Property")
Applicant: T-Mobile Northeast LLC (the "Applicant")

Dear Honorable Members of the Board of Zoning Appeals:

This firm represents T-Mobile Northeast LLC ("T-Mobile") (hereinafter, the "Applicant") in connection with an application for a Special Permit from the City of Cambridge Board of Zoning Appeals (the "Board"), for the construction of a new wireless communications facility on the roof of the existing building located on the Property. The Property is located in the Industry A (IA) zoning district and pursuant to Article 4 Section 4.32G.1 of the City of Cambridge Zoning Ordinance (the "Ordinance") the use of the Property for a wireless telecommunications facility is permitted by special permit from the Board. The Applicant's proposal satisfies the requirements for the grant of a special permit pursuant to Section 10-43 of the Ordinance.

The Applicant seeks to construct a new wireless communications facility by three (3) new faux chimneys on the roof of the existing building. Each faux chimney will conceal and house three (3) panel antennas and two (2) Remote Radio Head Units ("RRH") (the "Proposed Facility"). Each proposed faux chimney will be approximately 5' X 6' X 10' and will be painted to match the façade of the existing building. The Proposed Facility will be installed on the roof of the existing building located at the Property (the "Building"). The Applicant's facilities are shown on the Plans attached hereto and incorporated herein by reference (the "Plans").

I. Background

The Applicant is licensed by the Federal Communications Commission (the "FCC") to construct and operate a wireless telecommunications network in various markets throughout the country, including the Commonwealth of Massachusetts and in particular in the City of Cambridge. A copy of the Applicant's FCC license is attached hereto. The Applicant is in the process of designing and constructing a telecommunications system to serve all of the Commonwealth of Massachusetts. One of the key design objectives of its systems is to provide seamless coverage. Such a system requires a grid of radio transmitting and receiving links located approximately .5 to 2 miles apart, depending on the location of existing and proposed installations in the surrounding area, the existing use of the network and the existing topography. The radio transmitting and receiving facilities operate on a line-of-sight basis, requiring

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

a clear path from the facility to the user on the ground. This dynamic requires the antennas to be located in a location where the signal is not obstructed or degraded by other buildings or by topographical features such as hills.

II. Project Description

As noted above, the Applicant proposes to construct a new wireless facility on the rooftop of the Building by constructing three (3) faux chimneys to conceal and house a total of nine (9) panel antennas, together with supporting equipment. Each proposed faux chimney will be approximately 5' X 6' X 10' and will be painted to match the façade of the existing building. All of the proposed antennas will be completely concealed within the stealth faux chimneys as described in more detail in the plans. Consequently, the visual impact of the Proposed Facility will be de minimus.

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

III. Legal Arguments

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

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

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

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

The intent of the U.S. Congress, when it enacted the Telecommunications Act of 1996 ("TCA") was to institute a framework to promote competition and innovation within the telecommunications industry. Under its license from the FCC, T-Mobile is obligated to provide a reliable "product" (i.e. wireless communications service) to the population of the City of Cambridge. Likewise, consumer expectations for increasingly robust and reliable service requires competing service providers (including T-Mobile) to identify and remedy existing gaps in reliable network coverage, or gaps that result from increasing subscriber voice and data traffic

beyond the limits of existing network infrastructure. A carrier's failure to remedy network gaps in a timely fashion can result in a significant loss of subscribers to competing telecommunications carriers. As demonstrated in the Report of Radio Frequency Engineer 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 a new location that will utilize new technology to provide the necessary coverage to the subject area of the City of Cambridge. Therefore, the Proposed Facility in the IA zoning district is necessary to provide adequate coverage as described in the Report of Radio Frequency Engineer submitted herewith. Consequently, T-Mobile is unable to provide adequate coverage in its wireless network without obtaining the requested Special Permit to construct its proposed wireless facility in the IA zoning district.

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

The Applicant's design minimizes the visual impact of the Proposed Facility. The resulting installation will have an increased capacity to better serve the City of Cambridge. The Proposed Facility is completely concealed within the proposed faux chimneys. The faux chimneys will be painted to match the façade of the Building and are designed to blend in with the building to the greatest extent possible. The faux chimneys have been designed and placed in a way to provide the best coverage for T-Mobile's users, while being appropriately situated and set back on the rooftop. Accordingly, the Proposed Facility will have a de-minimus impact on the existing visual conditions of the Building.

- 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.**

Not Applicable, the Property and Proposed Facility are located in the IA zoning district.

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

1. The requirements of the Ordinance can be met:

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

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

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

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

As described above and illustrated on the attached photograph simulations, the Proposed Facility will produce a minimal change in the appearance of the Building. The Proposed Facility will blend with the existing characteristics of the Building and the surrounding neighborhood. Moreover, the Proposed Facility 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 IA zoning districts.

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

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

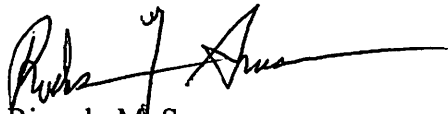
Not Applicable. The Applicant is not proposing to construct a new building or structure.

IV. Summary

The Applicant hereby requests that the Board determine that its Proposed 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 in the form of a Special Permit and such other relief as the Board deems necessary to allow the installation and operation of the Applicant's Proposed Facility.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ricardo M. Sousa', with a long horizontal flourish extending to the right.

Ricardo M. Sousa

Direct: 617-456-8123

Email: rsousa@princelobel.com

BZA APPLICATION FORM

DIMENSIONAL INFORMATION

APPLICANT: T-Mobile Northeast PRESENT USE/OCCUPANCY: Wireless Telecommunications

LOCATION: 195 Binney Street ZONE: IA

PHONE: 617-456-8123 REQUESTED USE/OCCUPANCY: Wireless Telecommunications

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

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

The proposed installation involves the construction of a new Wireless Telecommunications Facility.

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

BZA APPLICATION FORM
GENERAL INFORMATION

2017 JUN 12 PM 3:17
 RECEIVED BY THE REGISTRAR
 REGISTERED OFFICE
 COMMONWEALTH OF MASSACHUSETTS

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

Special Permit: X Variance: Appeal:

PETITIONER: T-Mobile Northeast LLC

PETITIONER'S ADDRESS: Prince Lobel Tye, LLP, Attn. Ricardo M. Sousa, Esq., One International Place, Suite 3700, Boston, MA

LOCATION OF PROPERTY: 195 Binney Street

TYPE OF OCCUPANCY: Telecommunications ZONING DISTRICT: Industry A

REASON FOR PETITION:

<u> </u> Additions	<u> </u> New Structure
<u> </u> Change in Use/Occupancy	<u> </u> Parking
<u> </u> Conversion to Addi'l Dwelling Unit's	<u> </u> Sign
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DESCRIPTION OF PETITIONER'S PROPOSAL:
 The Applicant proposes to construct and operate a new Wireless Communication Facility which will consist of nine (9) panel antennas and six (6) Remote Radio Head Units, which will be completely concealed within three (3) faux chimneys installed on the roof of the existing building on the property. The proposed faux chimneys will be painted to match the existing building. Each proposed faux chimney will house three (3) panel antennas and two (2) remote radio head units.

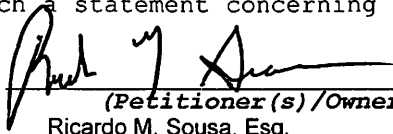
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Applicants for a Variance must complete Pages 1-5
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Original Signature(s): 
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 Ricardo M. Sousa, Esq.
 (Print Name)

Address: One International Place, Suite 3700
 Boston, MA 02110

Tel. No.: 617-456-8123

E-Mail Address: rsousa@princelobel.com

Date: June 9, 2017

**APPLICATION FOR
SPECIAL PERMIT
FOR A
WIRELESS COMMUNICATION FACILITY**

T-Mobile Northeast LLC

**c/o Ricardo M. Sousa, Esq.
Prince Lobel Tye LLP
One International Place, Suite 3700
Boston, MA 02110**

Applicant

**Property Location:
195 Binney Street
Cambridge, MA 02142
Map 28, Lot 33**

**Prepared by: Ricardo M. Sousa, Esq.
Prince Lobel Tye LLP
One International Place, Suite 3700
Boston, MA 02110
Telephone: (617) 456-8123
Facsimile: (617) 456-8100**

June 9, 2017

TABLE OF CONTENTS

**APPLICATION TO THE BOARD OF ZONING APPEALS
For a Special Permit
for a
WIRELESS COMMUNICATION FACILITY**

Property located at:

**195 Binney Street
Cambridge, MA 02142**

Map 28, Lot 33

Board of Zoning Appeals Special Permit Application	Tab 1
Zoning Supporting Statement	Tab 2
Plans	Tab 3
Photograph Simulations	Tab 4
Radio Frequency Engineer Report	Tab 5
Structural Affidavit	Tab 6
EME Report	Tab 7
FCC License	Tab 8

1

BZA APPLICATION FORM

CHECK LIST

PROPERTY LOCATION: 195 Binney Street DATE: 6/9/2017
PETITIONER OR REPRESENTATIVE: Ricardo M. Sousa, Esq. for T-Mobile Northeast LLC
ADDRESS & PHONE: One International Place, Suite 3700, Boston, MA 02110
BLOCK: 28 LOT: 33

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

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

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

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

* For Special Permits under Art. 4.32.G.1 (Communication Towers and Antennas), include a photo simulation.

** Can be submitted after subdivision has been approved.

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Original Signature(s): Ricardo M. Sousa

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 Ricardo M. Sousa, Esq.
 (Print Name)

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Tel. No.: 617-456-8123

E-Mail Address: rsousa@princelobel.com

Date: June 9, 2017

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

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(OWNER)

195 Binney Street Cambridge MA 02142

Address: _____

State that I/We own the property located at 195 Binney Street Cambridge MA 02142,

which is the subject of this zoning application. Special Permit for a Wireless Facility
The record title of this property is in the name of

ASN Kendell Square LLC, A Delaware Limited Liability Company

Kathleen B. Austin

*Pursuant to a deed of duly recorded in the date 11/30/2005, Middlesex South
County Registry of Deeds at Book 46575, Page 268; 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.

State of Illinois, County of Cook

The above-name KATHLEEN B. AUSTIN personally appeared before me,
this 31 of MAY, 2017, and made oath that the above statement is true.

Paulette McKinley Notary

My commission expires 3/19/19 (Notary Seal)



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

BZA APPLICATION FORM

DIMENSIONAL INFORMATION

APPLICANT: T-Mobile Northeast PRESENT USE/OCCUPANCY: Wireless Telecommunications

LOCATION: 195 Binney Street ZONE: IA

PHONE: 617-456-8123 REQUESTED USE/OCCUPANCY: Wireless Telecommunications

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

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

The proposed installation involves the construction of a new Wireless Telecommunications Facility.

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

BZA APPLICATION FORM

SUPPORTING STATEMENT FOR A VARIANCE

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

- A) A Literal enforcement of the provisions of this Ordinance would involve a substantial hardship, financial or otherwise, to the petitioner or appellant for the following reasons:

N/A

- B) The hardship is owing to the following circumstances relating to the soil conditions, shape or topography of such land or structures and especially affecting such land or structures but not affecting generally the zoning district in which it is located for the following reasons:

N/A

- C) *DESIRABLE RELIEF MAY BE GRANTED WITHOUT EITHER:*

- 1) Substantial detriment to the public good for the following reasons:

N/A

- 2) Relief may be granted without nullifying or substantially derogating from the intent or purpose of this Ordinance for the following reasons:

N/A

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

BZA APPLICATION FORM

SUPPORTING STATEMENT FOR A SPECIAL PERMIT

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

Granting the Special Permit requested for 195 Binney Street (Location) would not be a detriment to the public interest because:

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

Please see the attached supporting statement.

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

Please see the attached supporting statement.

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

Please see the attached supporting statement.

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

Please see the attached supporting statement.

- E) For other reasons, the proposed use would not impair the integrity of the district or adjoining district or otherwise derogate from the intent or purpose of this ordinance for the following reasons:

BZA APPLICATION FORM

CHECK LIST

PROPERTY LOCATION: 195 Binney Street DATE: 6/9/2017

PETITIONER OR REPRESENTATIVE: Ricardo M. Sousa, Esq. for T-Mobile Northeast LLC

ADDRESS & PHONE: One International Place, Suite 3700, Boston, MA 02110

BLOCK: 28 LOT: 33

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

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

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

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

* For Special Permits under Art. 4.32.G.1 (Communication Towers and Antennas), include a photo simulation.

** Can be submitted after subdivision has been approved.

BZA APPLICATION FORM

GENERAL INFORMATION

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

Special Permit: Variance: _____ Appeal: _____

PETITIONER: T-Mobile Northeast LLC

PETITIONER'S ADDRESS: Prince Lobel Tye, LLP, Attn. Ricardo M. Sousa, Esq., One International Place, Suite 3700, Boston, MA

LOCATION OF PROPERTY: 195 Binney Street

TYPE OF OCCUPANCY: Telecommunications ZONING DISTRICT: Industry A

REASON FOR PETITION:

- | | |
|--|--|
| <input type="checkbox"/> Additions | <input type="checkbox"/> New Structure |
| <input type="checkbox"/> Change in Use/Occupancy | <input type="checkbox"/> Parking |
| <input type="checkbox"/> Conversion to Addi'l Dwelling Unit's | <input type="checkbox"/> Sign |
| <input type="checkbox"/> Dormer | <input type="checkbox"/> Subdivision |
| <input checked="" type="checkbox"/> Other: <u>Wireless Communications Facility</u> | |

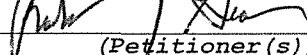
DESCRIPTION OF PETITIONER'S PROPOSAL:

The Applicant proposes to construct and operate a new Wireless Communication Facility which will consist of nine (9) panel antennas and six (6) Remote Radio Head Units, which will be completely concealed within three (3) faux chimneys installed on the roof of the existing building on the property. The proposed faux chimneys will be painted to match the existing building. Each proposed faux chimney will house three (3) panel antennas and two (2) remote radio head units.

SECTIONS OF ZONING ORDINANCE CITED:

- Article 4.00 Section 4.32 (g)(1) Utilities - Telephone Exchange
Article 4.00 Section 4.40 - Footnote 49 - Telecommunications Facility
Article 10.00 Section 10.40 - Special Permit

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

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

Ricardo M. Sousa, Esq.
(Print Name)

Address: One International Place, Suite 3700
Boston, MA 02110

Tel. No.: 617-456-8123

E-Mail Address: rsousa@princelobel.com

Date: June 9, 2017

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.

ASN Kendell Square, LLC, a Delaware Limited Liability Company
(OWNER)

195 Binney Street Cambridge MA 02142

Address: _____

State that I/We own the property located at 195 Binney Street Cambridge MA 02142,

which is the subject of this zoning application. Special Permit for a Wireless Facility
The record title of this property is in the name of

ASN Kendell Square LLC, A Delaware Limited Liability Company

Kathleen B. Austin

*Pursuant to a deed of duly recorded in the date 11/30/2005, Middlesex South
County Registry of Deeds at Book 46575, Page 268; 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.

State of Illinois, County of Cook

The above-name KATHLEEN B. AUSTIN personally appeared before me,
this 31 of MAY, 2017, and made oath that the above statement is true.

Paulette McKinley Notary

My commission expires 3/19/19 (Notary Seal)



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

BZA APPLICATION FORM

DIMENSIONAL INFORMATION

APPLICANT: T-Mobile Northeast PRESENT USE/OCCUPANCY: Wireless Telecommunications

LOCATION: 195 Binney Street ZONE: IA

PHONE: 617-456-8123 REQUESTED USE/OCCUPANCY: Wireless Telecommunications

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

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

The proposed installation involves the construction of a new Wireless Telecommunications Facility.

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

BZA APPLICATION FORM

SUPPORTING STATEMENT FOR A VARIANCE

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

- A) A Literal enforcement of the provisions of this Ordinance would involve a substantial hardship, financial or otherwise, to the petitioner or appellant for the following reasons:

N/A

- B) The hardship is owing to the following circumstances relating to the soil conditions, shape or topography of such land or structures and especially affecting such land or structures but not affecting generally the zoning district in which it is located for the following reasons:

N/A

- C) *DESIRABLE RELIEF MAY BE GRANTED WITHOUT EITHER:*

- 1) Substantial detriment to the public good for the following reasons:

N/A

- 2) Relief may be granted without nullifying or substantially derogating from the intent or purpose of this Ordinance for the following reasons:

N/A

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

BZA APPLICATION FORM

SUPPORTING STATEMENT FOR A SPECIAL PERMIT

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

Granting the Special Permit requested for 195 Binney Street (location) would not be a detriment to the public interest because:

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

Please see the attached supporting statement.

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

Please see the attached supporting statement.

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

Please see the attached supporting statement.

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

Please see the attached supporting statement.

- E) For other reasons, the proposed use would not impair the integrity of the district or adjoining district or otherwise derogate from the intent or purpose of this ordinance for the following reasons:

BZA APPLICATION FORM

CHECK LIST

PROPERTY LOCATION: 195 Binney Street DATE: 6/9/2017

PETITIONER OR REPRESENTATIVE: Ricardo M. Sousa, Esq. for T-Mobile Northeast LLC

ADDRESS & PHONE: One International Place, Suite 3700, Boston, MA 02110

BLOCK: 28 LOT: 33

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

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

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

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

* For Special Permits under Art. 4.32.G.1 (Communication Towers and Antennas), include a photo simulation.

** Can be submitted after subdivision has been approved.

BZA APPLICATION FORM

GENERAL INFORMATION

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

Special Permit: x Variance: Appeal:

PETITIONER: T-Mobile Northeast LLC

PETITIONER'S ADDRESS: Prince Lobel Tye, LLP, Attn. Ricardo M. Sousa, Esq., One International Place, Suite 3700, Boston, MA

LOCATION OF PROPERTY: 195 Binney Street

TYPE OF OCCUPANCY: Telecommunications ZONING DISTRICT: Industry A

REASON FOR PETITION:

- Additions New Structure
- Change in Use/Occupancy Parking
- Conversion to Addi'l Dwelling Unit's Sign
- Dormer Subdivision
- x Other: Wireless Communications Facility

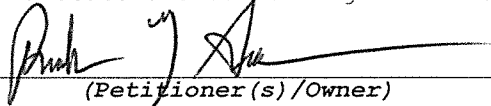
DESCRIPTION OF PETITIONER'S PROPOSAL:

The Applicant proposes to construct and operate a new Wireless Communication Facility which will consist of nine (9) panel antennas and six (6) Remote Radio Head Units, which will be completely concealed within three (3) faux chimneys installed on the roof of the existing building on the property. The proposed faux chimneys will be painted to match the existing building. Each proposed faux chimney will house three (3) panel antennas and two (2) remote radio head units

SECTIONS OF ZONING ORDINANCE CITED:

- Article 4.00 Section 4.32 (g)(1) Utilities - Telephone Exchange
- Article 4.00 Section 4.40 - Footnote 49 - Telecommunications Facility
- Article 10.00 Section 10.40 - Special Permit

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

Original Signature(s): 
(Petitioner(s)/Owner)
Ricardo M. Sousa, Esq.
(Print Name)

Address: One International Place, Suite 3700
 Boston, MA 02110

Tel. No.: 617-456-8123

E-Mail Address: rsousa@princelobel.com

Date: June 9, 2017

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.

ASN Kendell Square, LLC, a Delaware Limited Liability Company
(OWNER)

195 Binney Street Cambridge MA 02142

Address: _____

State that I/We own the property located at 195 Binney Street Cambridge MA 02142,

which is the subject of this zoning application. Special Permit for a Wireless Facility

The record title of this property is in the name of

ASN Kendell Square LLC, A Delaware Limited Liability Company

Kathleen B. Austin

*Pursuant to a deed of duly recorded in the date 11/30/2005, Middlesex South

County Registry of Deeds at Book 46575, Page 268; 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.

State of Illinois, County of Cook

The above-name KATHLEEN B. AUSTIN personally appeared before me,
this 31 of MAY, 2017, and made oath that the above statement is true.

Paulette McKinley Notary

My commission expires 3/19/19 (Notary Seal)



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

BZA APPLICATION FORM

DIMENSIONAL INFORMATION

APPLICANT: T-Mobile Northeast PRESENT USE/OCCUPANCY: Wireless Telecommunications

LOCATION: 195 Binney Street ZONE: IA

PHONE: 617-456-8123 REQUESTED USE/OCCUPANCY: Wireless Telecommunications

	<u>EXISTING CONDITIONS</u>	<u>REQUESTED CONDITIONS</u>	<u>ORDINANCE REQUIREMENTS¹</u>
TOTAL GROSS FLOOR AREA:	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (max.)
LOT AREA:	<u>N/A</u>		<u>N/A</u> (min.)
RATIO OF GROSS FLOOR AREA TO LOT AREA: ²	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (max.)
LOT AREA FOR EACH DWELLING UNIT:	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)
SIZE OF LOT:			<u>N/A</u> (min.)
WIDTH			
DEPTH			
Setbacks in Feet:			<u>N/A</u> (min.)
FRONT	<u>N/A</u>	<u>No Change</u>	
REAR	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)
LEFT SIDE	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)
RIGHT SIDE	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)
SIZE OF BLDG.:			<u>N/A</u> (max.)
HEIGHT	<u>N/A</u>	<u>No Change</u>	
LENGTH			
WIDTH			
RATIO OF USABLE OPEN SPACE TO LOT AREA: ³⁾	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)
NO. OF DWELLING UNITS:	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (max.)
NO. OF PARKING SPACES:	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min./max)
NO. OF LOADING AREAS:	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)
DISTANCE TO NEAREST BLDG. ON SAME LOT:	<u>N/A</u>	<u>No Change</u>	<u>N/A</u> (min.)

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

The proposed installation involves the construction of a new Wireless Telecommunications Facility.

1. SEE CAMBRIDGE ZONING ORDINANCE ARTICLE 5.000, SECTION 5.30 (DISTRICT OF DIMENSIONAL REGULATIONS).
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3. OPEN SPACE SHALL NOT INCLUDE PARKING AREAS, WALKWAYS OR DRIVEWAYS AND SHALL HAVE A MINIMUM DIMENSION OF 15'.

BZA APPLICATION FORM

SUPPORTING STATEMENT FOR A VARIANCE

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

- A) A Literal enforcement of the provisions of this Ordinance would involve a substantial hardship, financial or otherwise, to the petitioner or appellant for the following reasons:

N/A

- B) The hardship is owing to the following circumstances relating to the soil conditions, shape or topography of such land or structures and especially affecting such land or structures but not affecting generally the zoning district in which it is located for the following reasons:

N/A

- C) *DESIRABLE RELIEF MAY BE GRANTED WITHOUT EITHER:*

- 1) Substantial detriment to the public good for the following reasons:

N/A

- 2) Relief may be granted without nullifying or substantially derogating from the intent or purpose of this Ordinance for the following reasons:

N/A

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

BZA APPLICATION FORM

SUPPORTING STATEMENT FOR A SPECIAL PERMIT

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

Granting the Special Permit requested for 195 Binney Street (Location) would not be a detriment to the public interest because:

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

Please see the attached supporting statement.

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

Please see the attached supporting statement.

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

Please see the attached supporting statement.

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

Please see the attached supporting statement.

- E) For other reasons, the proposed use would not impair the integrity of the district or adjoining district or otherwise derogate from the intent or purpose of this ordinance for the following reasons:

2

June 9, 2017

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

Re: Application for Special Permit
Property Address: 195 Binney Street
Assessor's Map 28, Lot 33 (the "Property")
Applicant: T-Mobile Northeast LLC (the "Applicant")

Dear Honorable Members of the Board of Zoning Appeals:

This firm represents T-Mobile Northeast LLC ("T-Mobile") (hereinafter, the "Applicant") in connection with an application for a Special Permit from the City of Cambridge Board of Zoning Appeals (the "Board"), for the construction of a new wireless communications facility on the roof of the existing building located on the Property. The Property is located in the Industry A (IA) zoning district and pursuant to Article 4 Section 4.32G.1 of the City of Cambridge Zoning Ordinance (the "Ordinance") the use of the Property for a wireless telecommunications facility is permitted by special permit from the Board. The Applicant's proposal satisfies the requirements for the grant of a special permit pursuant to Section 10-43 of the Ordinance.

The Applicant seeks to construct a new wireless communications facility by three (3) new faux chimneys on the roof of the existing building. Each faux chimney will conceal and house three (3) panel antennas and two (2) Remote Radio Head Units ("RRH") (the "Proposed Facility"). Each proposed faux chimney will be approximately 5' X 6' X 10' and will be painted to match the façade of the existing building. The Proposed Facility will be installed on the roof of the existing building located at the Property (the "Building"). The Applicant's facilities are shown on the Plans attached hereto and incorporated herein by reference (the "Plans").

I. Background

The Applicant is licensed by the Federal Communications Commission (the "FCC") to construct and operate a wireless telecommunications network in various markets throughout the country, including the Commonwealth of Massachusetts and in particular in the City of Cambridge. A copy of the Applicant's FCC license is attached hereto. The Applicant is in the process of designing and constructing a telecommunications system to serve all of the Commonwealth of Massachusetts. One of the key design objectives of its systems is to provide seamless coverage. Such a system requires a grid of radio transmitting and receiving links located approximately .5 to 2 miles apart, depending on the location of existing and proposed installations in the surrounding area, the existing use of the network and the existing topography. The radio transmitting and receiving facilities operate on a line-of-sight basis, requiring

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

a clear path from the facility to the user on the ground. This dynamic requires the antennas to be located in a location where the signal is not obstructed or degraded by other buildings or by topographical features such as hills.

II. Project Description

As noted above, the Applicant proposes to construct a new wireless facility on the rooftop of the Building by constructing three (3) faux chimneys to conceal and house a total of nine (9) panel antennas, together with supporting equipment. Each proposed faux chimney will be approximately 5' X 6' X 10' and will be painted to match the façade of the existing building. All of the proposed antennas will be completely concealed within the stealth faux chimneys as described in more detail in the plans. Consequently, the visual impact of the Proposed Facility will be de minimus.

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

III. Legal Arguments

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

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

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

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

The intent of the U.S. Congress, when it enacted the Telecommunications Act of 1996 ("TCA") was to institute a framework to promote competition and innovation within the telecommunications industry. Under its license from the FCC, T-Mobile is obligated to provide a reliable "product" (i.e. wireless communications service) to the population of the City of Cambridge. Likewise, consumer expectations for increasingly robust and reliable service requires competing service providers (including T-Mobile) to identify and remedy existing gaps in reliable network coverage, or gaps that result from increasing subscriber voice and data traffic

beyond the limits of existing network infrastructure. A carrier's failure to remedy network gaps in a timely fashion can result in a significant loss of subscribers to competing telecommunications carriers. As demonstrated in the Report of Radio Frequency Engineer 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 a new location that will utilize new technology to provide the necessary coverage to the subject area of the City of Cambridge. Therefore, the Proposed Facility in the IA zoning district is necessary to provide adequate coverage as described in the Report of Radio Frequency Engineer submitted herewith. Consequently, T-Mobile is unable to provide adequate coverage in its wireless network without obtaining the requested Special Permit to construct its proposed wireless facility in the IA zoning district.

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

The Applicant's design minimizes the visual impact of the Proposed Facility. The resulting installation will have an increased capacity to better serve the City of Cambridge. The Proposed Facility is completely concealed within the proposed faux chimneys. The faux chimneys will be painted to match the façade of the Building and are designed to blend in with the building to the greatest extent possible. The faux chimneys have been designed and placed in a way to provide the best coverage for T-Mobile's users, while being appropriately situated and set back on the rooftop. Accordingly, the Proposed Facility will have a de-minimus impact on the existing visual conditions of the Building.

- 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.**

Not Applicable, the Property and Proposed Facility are located in the IA zoning district.

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

1. The requirements of the Ordinance can be met:

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

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

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

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

As described above and illustrated on the attached photograph simulations, the Proposed Facility will produce a minimal change in the appearance of the Building. The Proposed Facility will blend with the existing characteristics of the Building and the surrounding neighborhood. Moreover, the Proposed Facility 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 IA zoning districts.

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

6. The new use of the building construction is consistent with the Urban Design Objective set for 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 its Proposed 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 in the form of a Special Permit and such other relief as the Board deems necessary to allow the installation and operation of the Applicant's Proposed Facility.

Sincerely,

A handwritten signature in black ink, appearing to read "Ricardo M. Sousa", with a long horizontal flourish extending to the right.

Ricardo M. Sousa

Direct: 617-456-8123

Email: rsousa@princelobel.com

3

LOFTS AT KENDALL SQUARE

195 BINNEY STREET
CAMBRIDGE, MA 02142

SITE NO.: 4BN1162B

SITE TYPE: ROOFTOP

T-MOBILE TECHNICIAN SITE SAFETY NOTES

LOCATION	SPECIAL RESTRICTIONS
SECTOR A:	ACCESS BY CERTIFIED CLIMBER
SECTOR B:	ACCESS BY CERTIFIED CLIMBER
SECTOR C:	ACCESS BY CERTIFIED CLIMBER
GPS/LMU:	UNRESTRICTED
RADIO CABINETS:	UNRESTRICTED
PPC DISCONNECT:	UNRESTRICTED
MAIN CIRCUIT D/C:	UNRESTRICTED
NIU/T DEMARC:	UNRESTRICTED
OTHER/SPECIAL:	NONE

GENERAL NOTES

- THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
- THE ARCHITECT/ENGINEER HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
- THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE OWNER'S REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
- THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.
- THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS / CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S / VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
- THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
- THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY CONSTRUCTION CONTROL SURVEYS, ESTABLISHING AND MAINTAINING ALL LINES AND GRADES REQUIRED TO CONSTRUCT ALL IMPROVEMENTS AS SHOWN HEREIN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
- THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
- THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
- THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
- THE CONTRACTOR SHALL NOTIFY THE PROJECT OWNER'S REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE LESSEE/LICENSEE REPRESENTATIVE.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
- ALL UNDERGROUND UTILITY INFORMATION WAS DETERMINED FROM SURFACE INVESTIGATIONS AND EXISTING PLANS OF RECORD. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO ANY SITE WORK. CALL THE FOLLOWING FOR ALL PRE-CONSTRUCTION NOTIFICATION 72-HOURS PRIOR TO ANY EXCAVATION ACTIVITY:
DIG SAFE SYSTEM (MA, ME, NH, RI, VT): 1-888-344-7233
CALL BEFORE YOU DIG (CB): 1-800-922-4455

VICINITY MAP

SCALE: 1" = 1000'-0"



DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE PROJECT OWNER'S REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SHEET INDEX

SHT. NO.	DESCRIPTION	REV. NO.
T-1	TITLE SHEET	3
C-1	PROPERTY PLAN	3
Z-1	ROOF PLAN	3
Z-2	ELEVATION	3
Z-3	ANTENNA PLAN & DETAILS	3
Z-4	EQUIPMENT PLAN & DETAILS	3

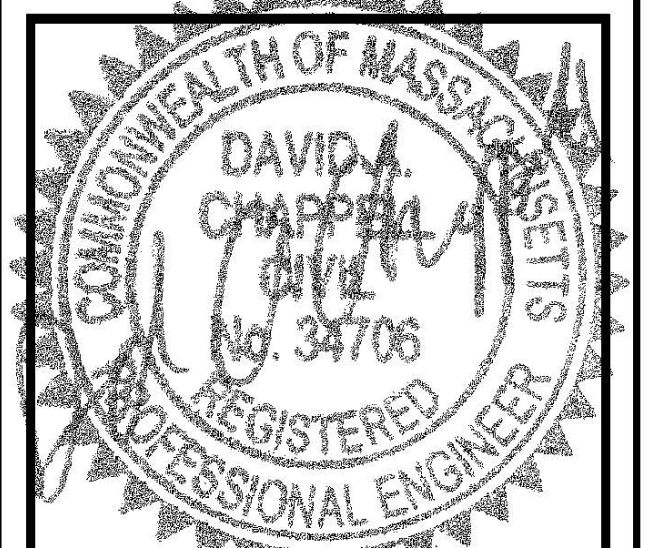
PROJECT SUMMARY

SITE NUMBER: 4BN1162B
 SITE NAME: LOFTS AT KENDALL SQUARE
 SITE ADDRESS: 195 BINNEY STREET
 CAMBRIDGE, MA 02142
 ASSESSOR'S PARCEL NO.: MAP 28 LOT 33
 ZONING DISTRICT: IA-1 (INDUSTRY A-1)
 DEED REFERENCE: BK. 46575 PG. 268
 CONSTRUCTION TYPE: ROOFTOP
 PROPERTY OWNER: ASN WORTHINGTON PLACE, LLC
 C/O EOR - R.E. TAX DEPT.
 P.O. BOX 87407
 CHICAGO, IL 60680-0407
 APPLICANT: T-MOBILE NORTHEAST LLC
 15 COMMERCE WAY, SUITE B
 NORTON, MA 02766
 ARCHITECT: CHAPPELL ENGINEERING ASSOCIATES, LLC.
 201 BOSTON POST ROAD WEST, SUITE 101
 MARLBOROUGH, MA 01752
 STRUCTURAL ENGINEER: CHAPPELL ENGINEERING ASSOCIATES, LLC.
 201 BOSTON POST ROAD WEST, SUITE 101
 MARLBOROUGH, MA 01752

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



R.K. EXECUTIVE CENTRE
 201 BOSTON POST ROAD WEST
 SUITE 101
 MARLBOROUGH, MA 01752
 (508) 481-7400
 www.chappellengineering.com



APPROVALS

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

PROJECT NO: 4BN1162B

DRAWN BY: CMC

CHECKED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION
3	06/02/17	ZONING REVISED
2	04/25/17	ZONING FINAL
1	03/31/17	ZONING
0	03/10/17	ISSUED FOR REVIEW

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

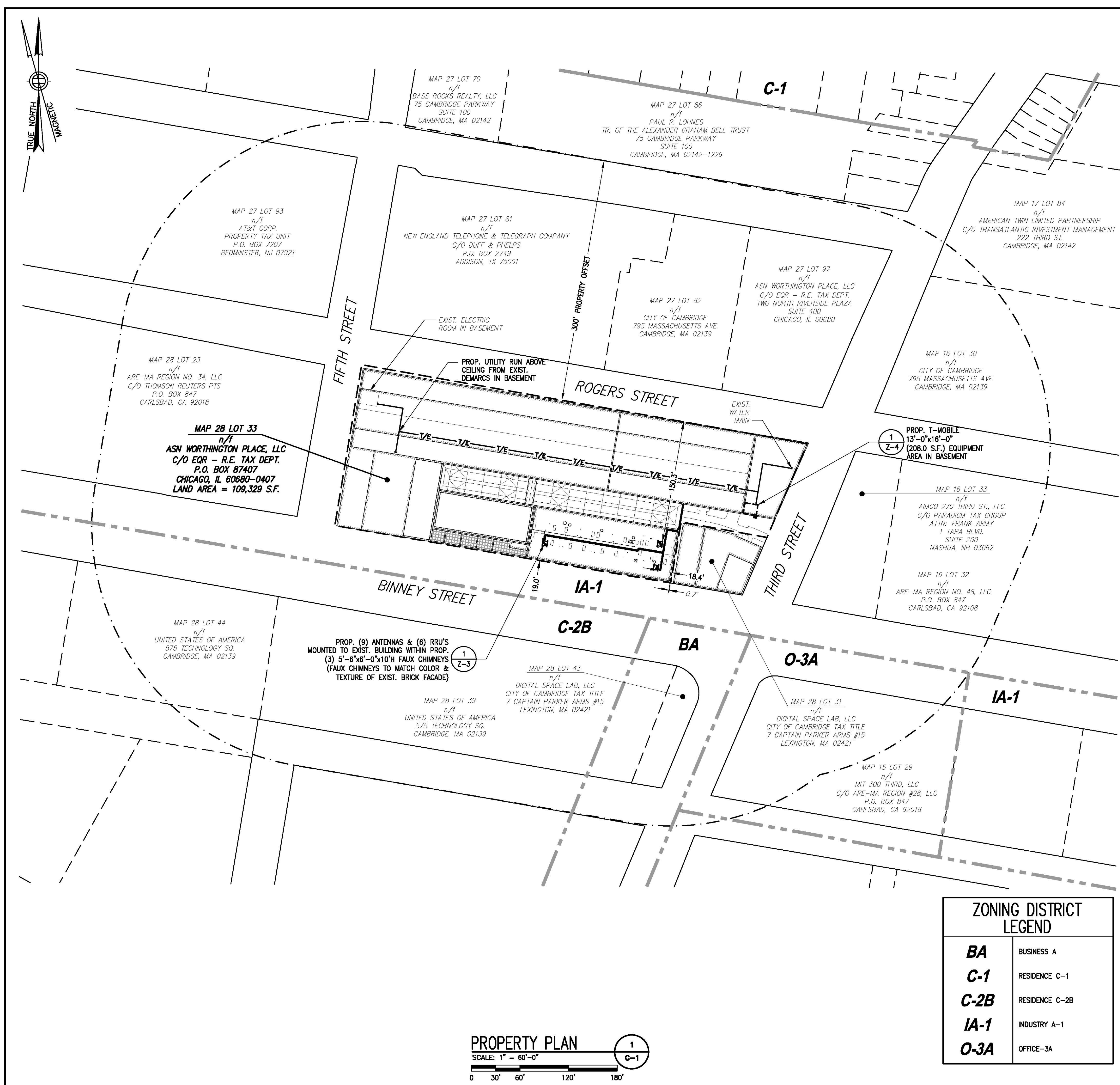
4BN1162B
 LOFTS AT KENDALL
 SQUARE
 195 BINNEY STREET
 CAMBRIDGE, MA 02142

SHEET TITLE

TITLE SHEET

SHEET NUMBER

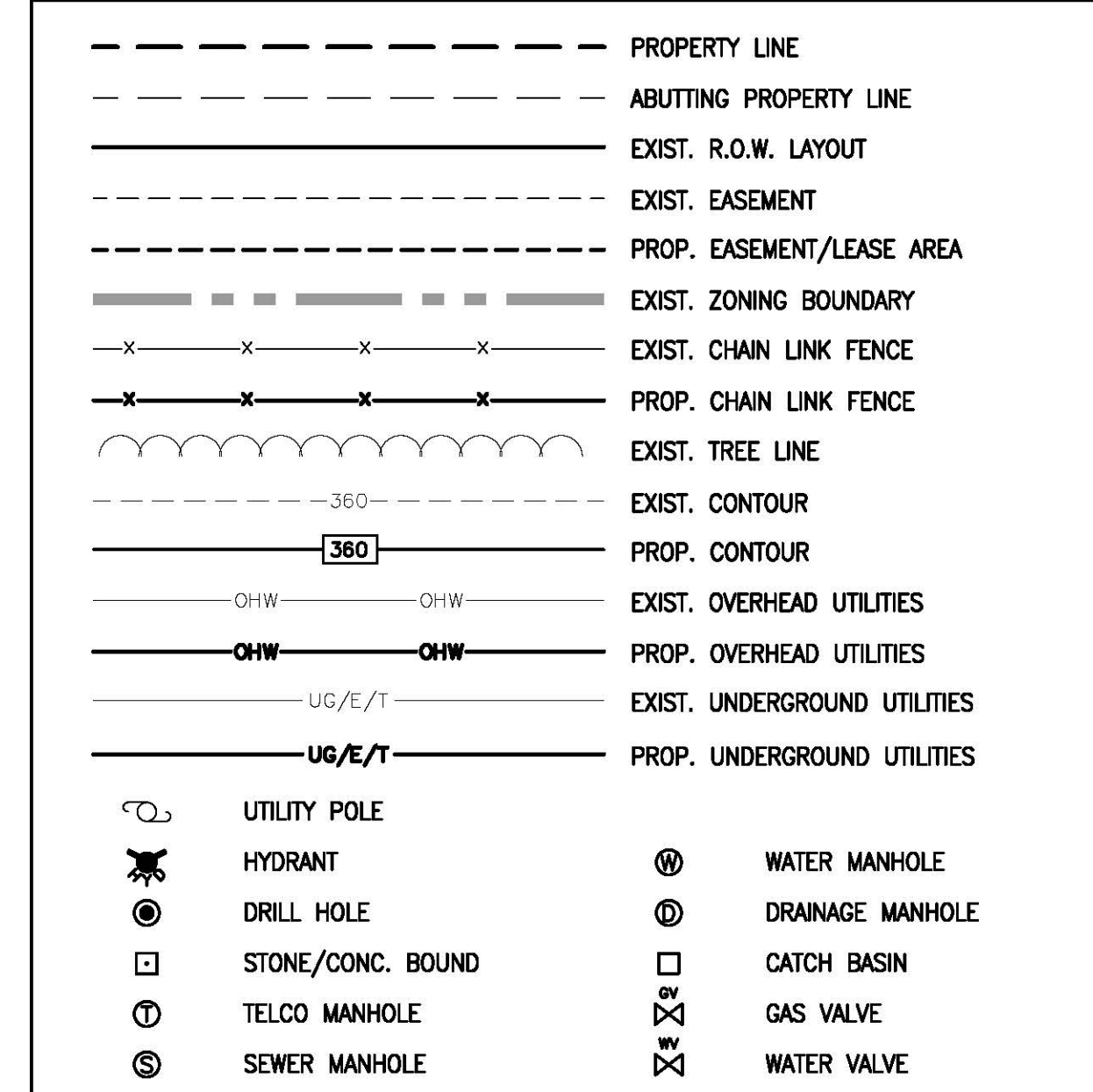
T-1



GENERAL NOTES:

- FIELD SURVEY DATE: 02/10/2017
- VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
- HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD83)
- SITE CONTROL POINT: BUILDING
LATITUDE: N.42°-21'-57.48" (NAD 83)
LONGITUDE: W.71°-04'-58.90" (NAD 83)
- OWNER: ASN WORTHINGTON PLACE, LLC
C/O EQR - R.E. TAX DEPT.
P.O. BOX 87407
CHICAGO, IL 60680-0407
- SITE NAME: LOFTS AT KENDALL SQUARE
- SITE ADDRESS: 265 BINNEY STREET
CAMBRIDGE, MA 02142
- APPLICANT: T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
- JURISDICTION: CITY OF CAMBRIDGE
- TAX ID: MAP 28 LOT 33
- DEED REFERENCE: BK. 46575 PG. 268
- PLAN REFERENCES: CITY OF CAMBRIDGE ASSESSOR/GIS MAPS
- ZONING DISTRICT: IA-1 (INDUSTRY A-1)
- ALL UNDERGROUND UTILITY INFORMATION PRESENTED HEREON WAS DETERMINED FROM SURFACE EVIDENCE AND PLANS OF RECORD. ALL UNDERGROUND UTILITIES SHOULD BE LOCATED IN THE FIELD PRIOR TO THE COMMENCEMENT OF ANY SITE WORK. CALL DIGSAFE 1-888-344-7233 A MINIMUM OF 72 HOURS PRIOR TO PLANNED ACTIVITY.
- THIS SURVEY HAS BEEN PREPARED IN CONFORMANCE WITH THE PROCEDURES AND REQUIREMENTS FOR DATA ACCUMULATION SURVEYS AS SET FORTH IN 250 CMR SECTION 6.02. BOUNDARY INFORMATION IS COMPILED FROM RECORD DOCUMENTS AND PLANS OF REFERENCE AND IS NOT TO BE CONSTRUED AS HAVING BEEN OBTAINED AS THE RESULT OF A FIELD BOUNDARY SURVEY AND IS SUBJECT TO CHANGE AS AN ACCURATE FIELD BOUNDARY SURVEY MAY DISCLOSE.
- THE PROPERTY BOUNDARY LINES SHOWN ARE THE LINES DIVIDING EXISTING OWNERSHIPS AND THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED. NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW STREETS AND WAYS ARE SHOWN.
- THE SITE IS LOCATED IN FLOOD HAZARD ZONE X (AREAS OF MINIMAL FLOOD HAZARD) AS SHOWN ON FLOOD INSURANCE RATE MAP FOR THE CITY OF CAMBRIDGE, COMMUNITY PANEL 25017C MAP 0577E DATED 06/04/2010.
- BEARING SYSTEM OF THIS PLAN IS BASED ON GRID NORTH. GRID NORTH WAS ESTABLISHED FROM GPS OBSERVATIONS. IT IS NOT INTENDED TO BE AN EXACT REPRESENTATION OF TRUE NORTH.

LEGEND



ZONING DISTRICT LEGEND

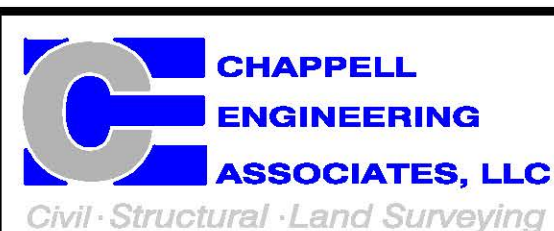
BA	BUSINESS A
C-1	RESIDENCE C-1
C-2B	RESIDENCE C-2B
IA-1	INDUSTRY A-1
O-3A	OFFICE-3A

ZONING INFORMATION

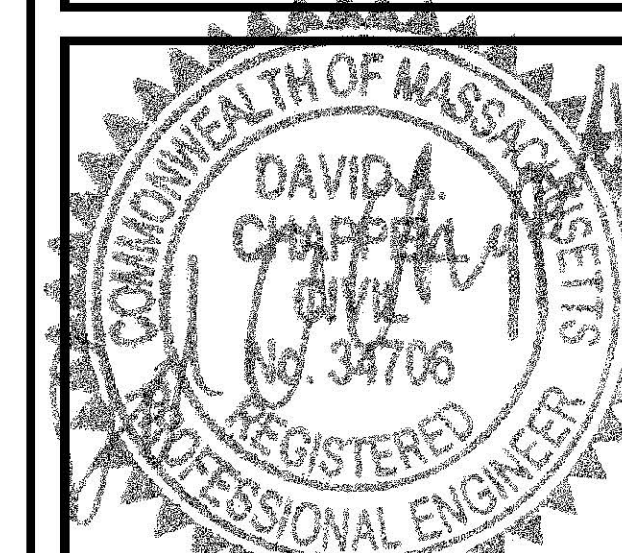
ZONING DISTRICT:	IA-1 (INDUSTRY A-1)		
DESCRIPTION	REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA:	5,000 S.F.	109,329 S.F.	N/A
MIN. LOT FRONTAGE:	N/A	420.4'±	N/A
PROPERTY SETBACKS			
FRONT	N/A	0'	19.0'±
SIDE	N/A	0.7'±	18.4'±
REAR	N/A	0'	150.3'±
MAX. HEIGHT	45'	78.8'±	85.6'±

NOTE:
1. PROPERTY PLAN BASED ON CITY OF CAMBRIDGE ASSESSORS MAPS AND FIELD VISIT BY CHAPPELL ENGINEERING ASSOCIATES, LLC. ON 02/10/17.
2. SETBACKS ARE TAKEN FROM THE CLOSEST POINT OF ANTENNAS AND/OR EQUIPMENT TO PROPERTY LINES.

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



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APPROVALS

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

PROJECT NO: 4BN1162B

DRAWN BY: CMC

CHECKED BY: JMT

SUBMITTALS

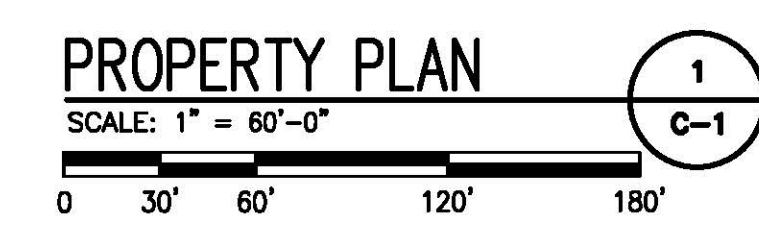
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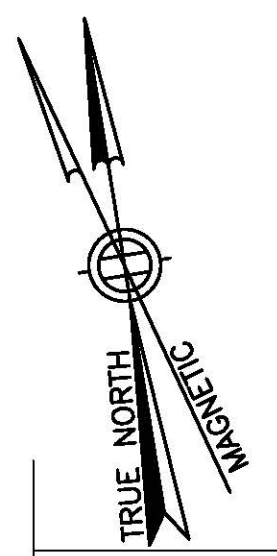
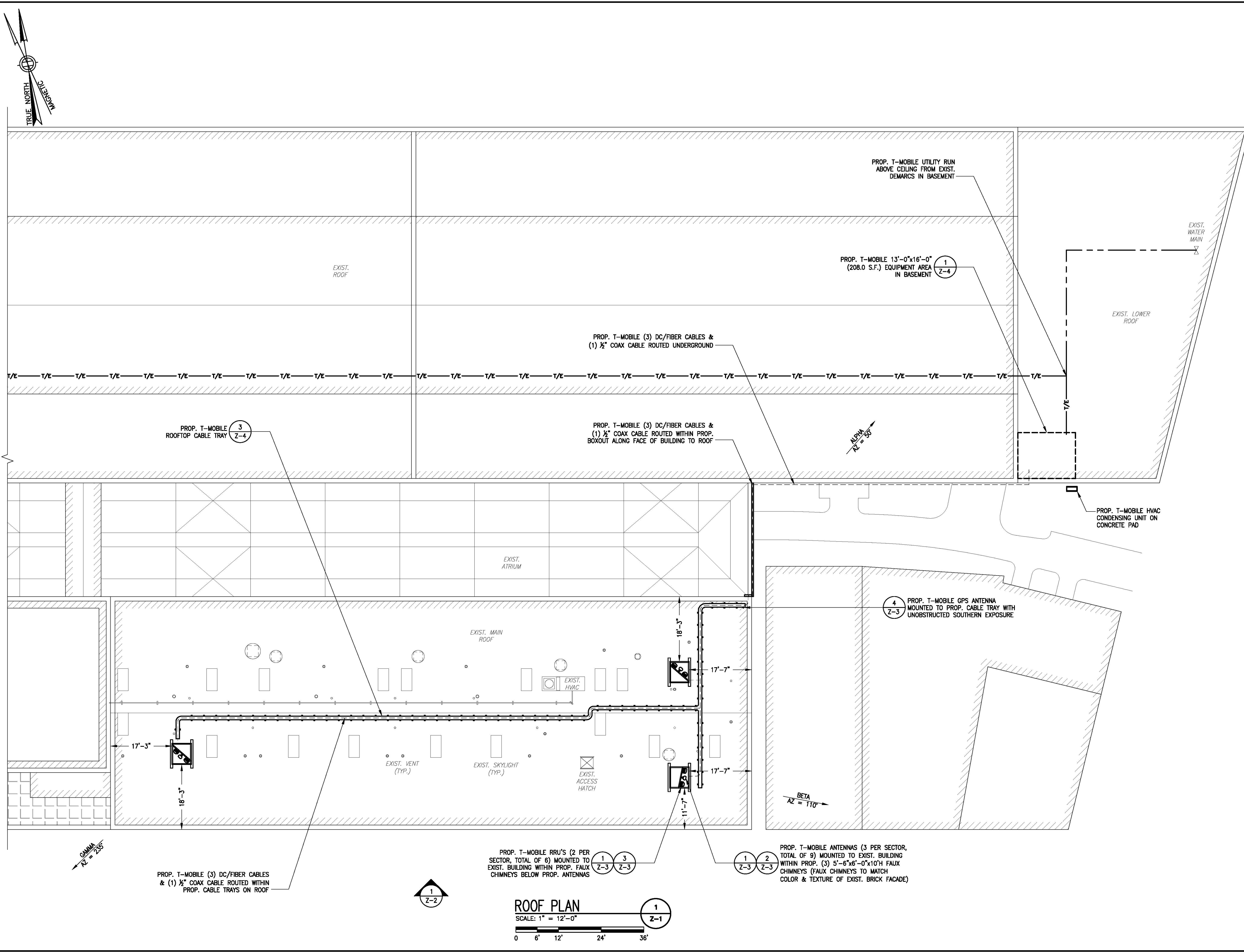
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LOFTS AT KENDALL SQUARE
195 BINNEY STREET
CAMBRIDGE, MA 02142

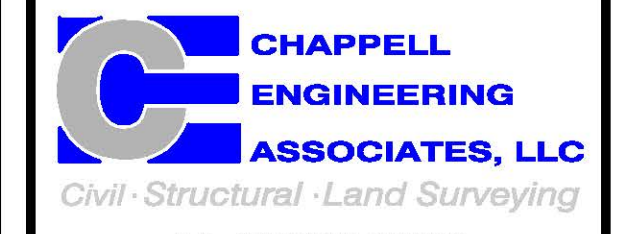
SHEET TITLE
PROPERTY PLAN

SHEET NUMBER
C-1

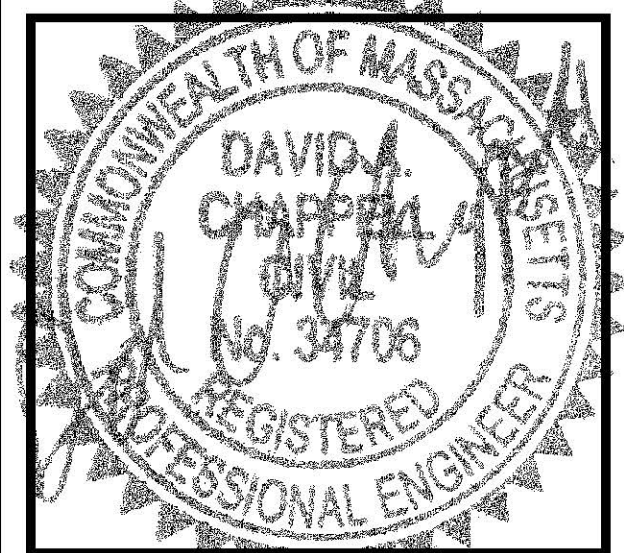




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APPROVALS

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 A/E _____

PROJECT NO: 4BN1162B
 DRAWN BY: CMC
 CHECKED BY: JMT

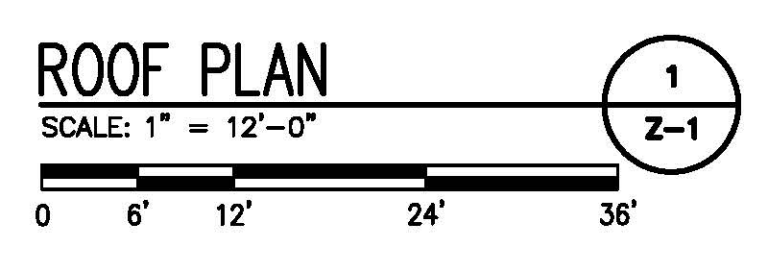
SUBMITTALS	
3	06/02/17 ZONING REVISED
2	04/25/17 ZONING FINAL
1	03/31/17 ZONING
0	03/10/17 ISSUED FOR REVIEW

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4BN1162B
 LOFTS AT KENDALL SQUARE
 195 BINNEY STREET
 CAMBRIDGE, MA 02142

SHEET TITLE
 ROOF PLAN

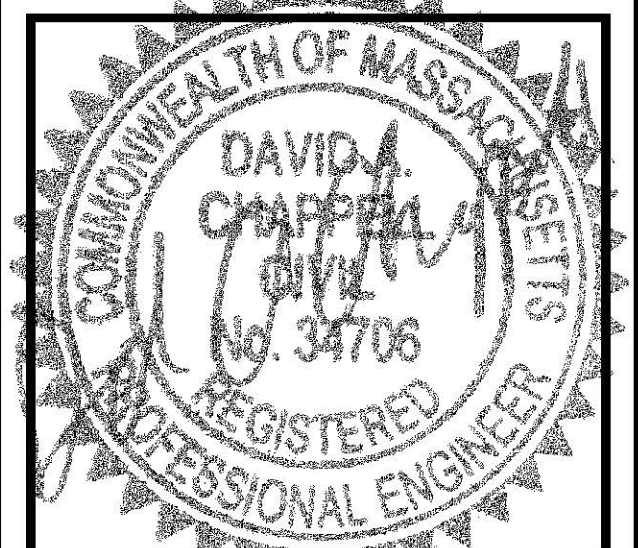
SHEET NUMBER
 Z-1



T-MOBILE NORTHEAST LLC
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 SUITE 101
 MARLBOROUGH, MA 01752
 (508)481-7400
 www.chappellengineering.com



APPROVALS

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

PROJECT NO: 4BN1162B

DRAWN BY: CMC

CHECKED BY: JMT

SUBMITTALS

3	06/02/17	ZONING REVISED
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0	03/10/17	ISSUED FOR REVIEW

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4BN1162B

LOFTS AT KENDALL SQUARE

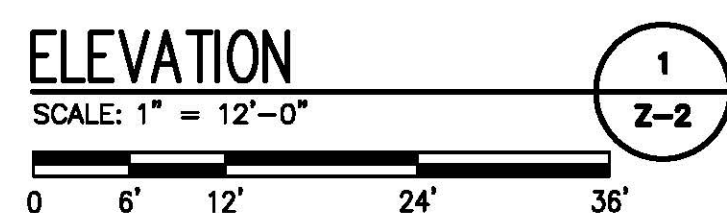
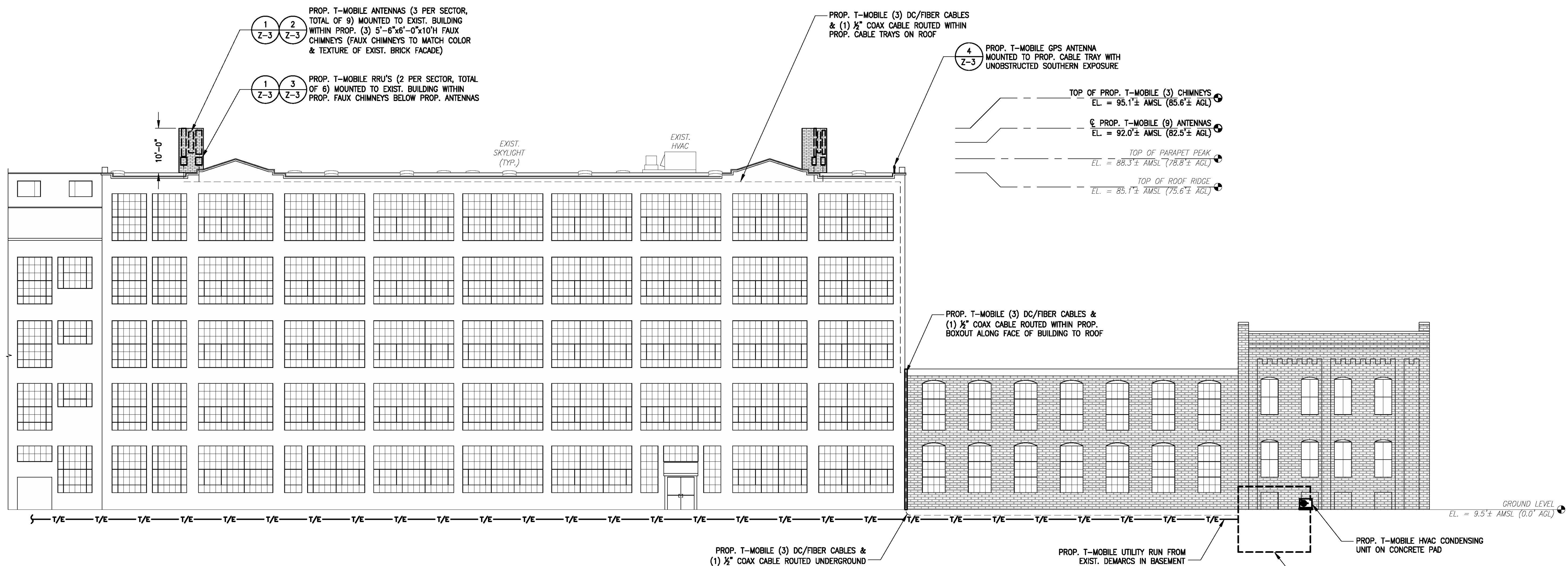
195 BINNEY STREET
 CAMBRIDGE, MA 02142

SHEET TITLE

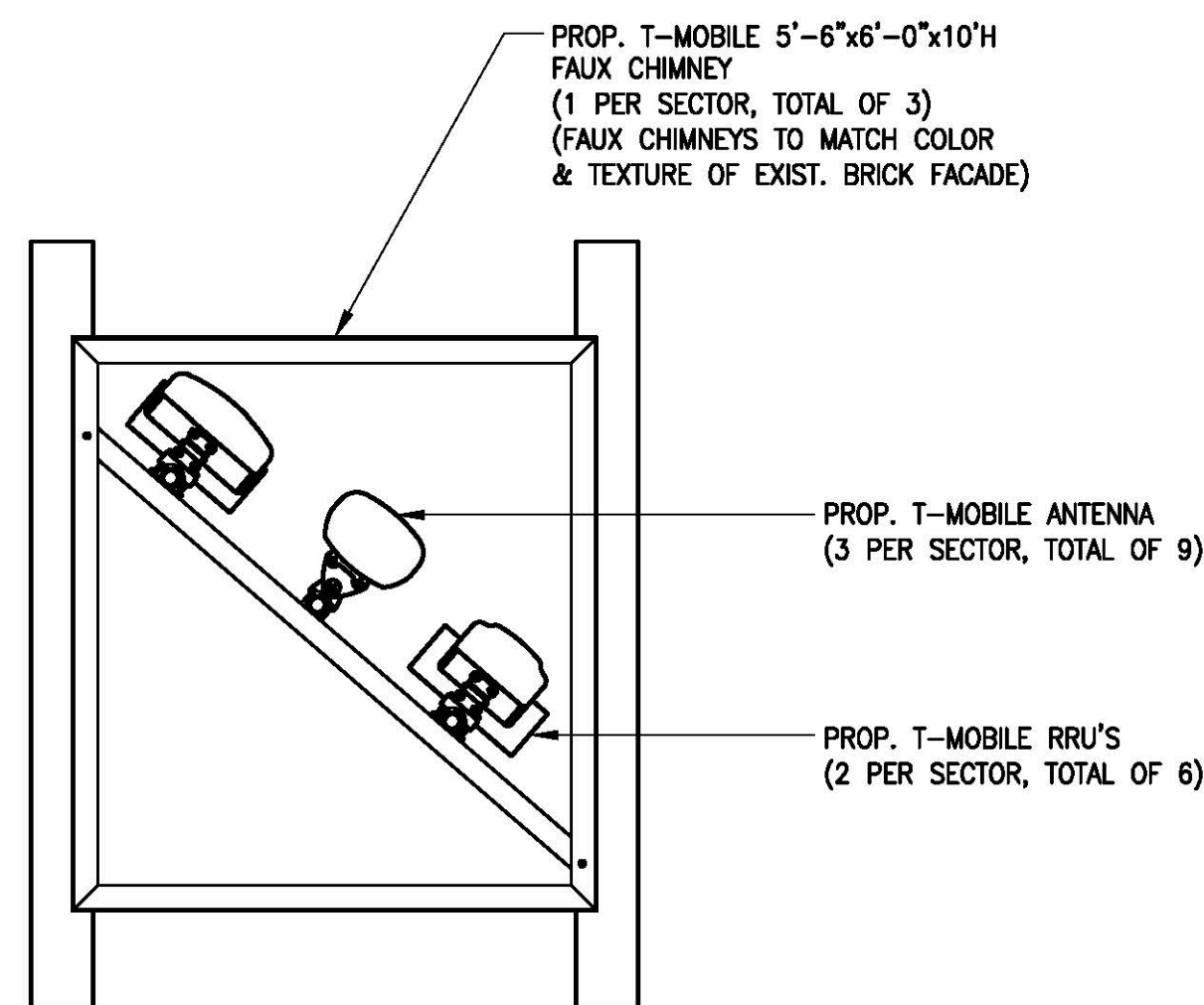
ELEVATION

SHEET NUMBER

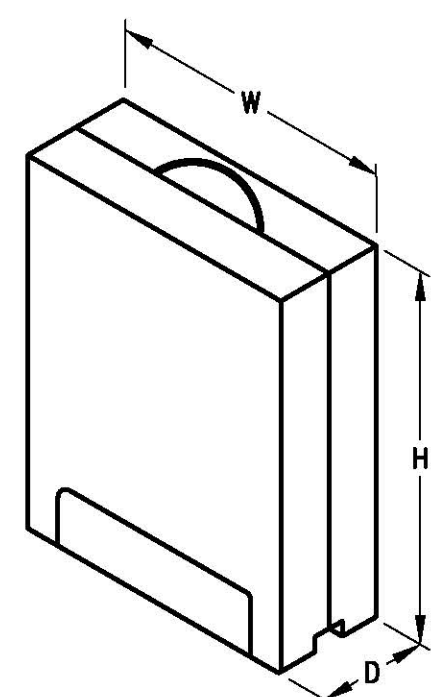
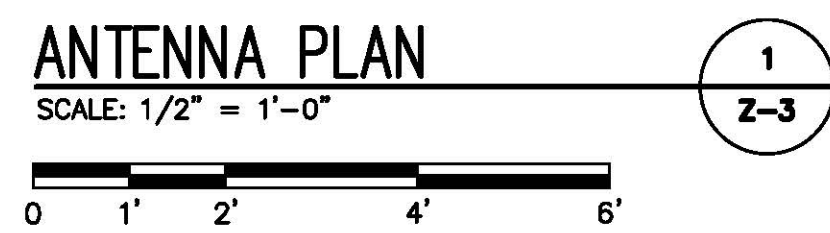
Z-2



NOTE:
FINAL CHIMNEY DESIGN PER
STRUCTURAL ANALYSIS.



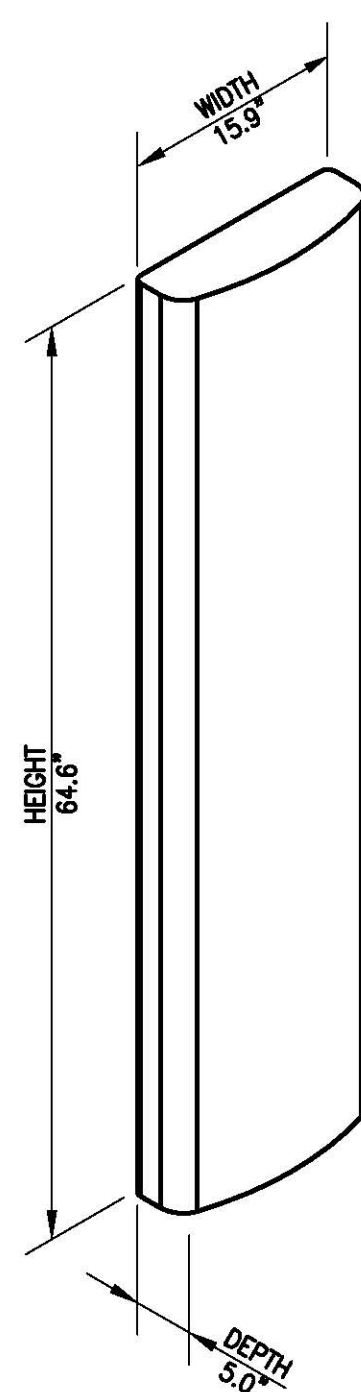
TYPICAL SECTOR



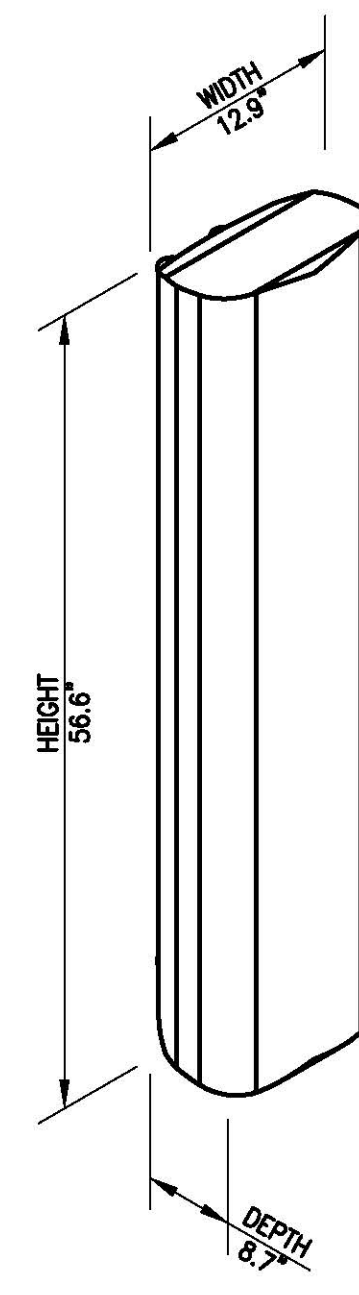
RRUS-11
DIMENSIONS: 20.0"H x 17"W x 7"D
WEIGHT: 50.7 LBS
2 PER SECTOR, TOTAL OF 6

RRU DETAILS

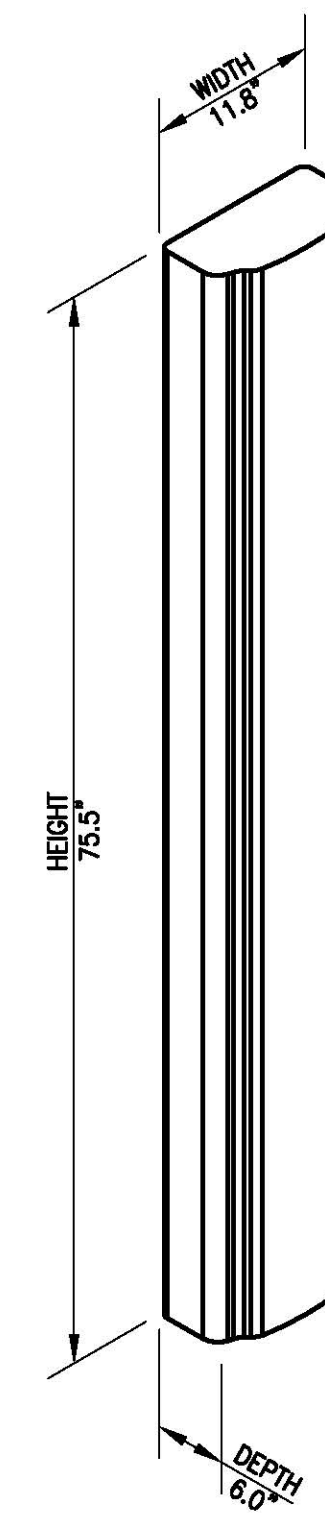
SCALE: N.T.S.



CELLMAX CMA-BDHH/6520/E0-8 PANEL ANTENNA
DIMENSIONS: 64.6"H x 15.9"W x 5.0"D
WEIGHT: 62.0 LBS
1 PER SECTOR, TOTAL OF 3



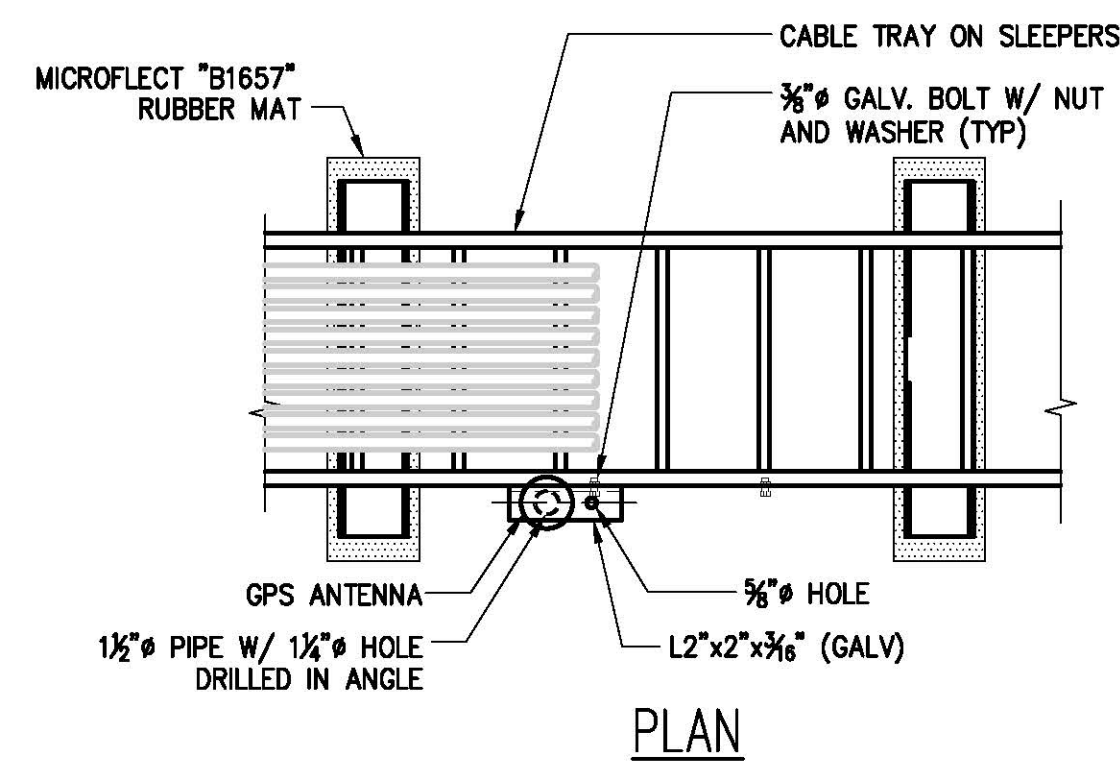
ERICSSON AIR32 B4A/B2P ANTENNA
DIMENSIONS: 56.6"H x 12.9"W x 8.7"D
WEIGHT: 105.8 LBS
1 PER SECTOR, TOTAL OF 3



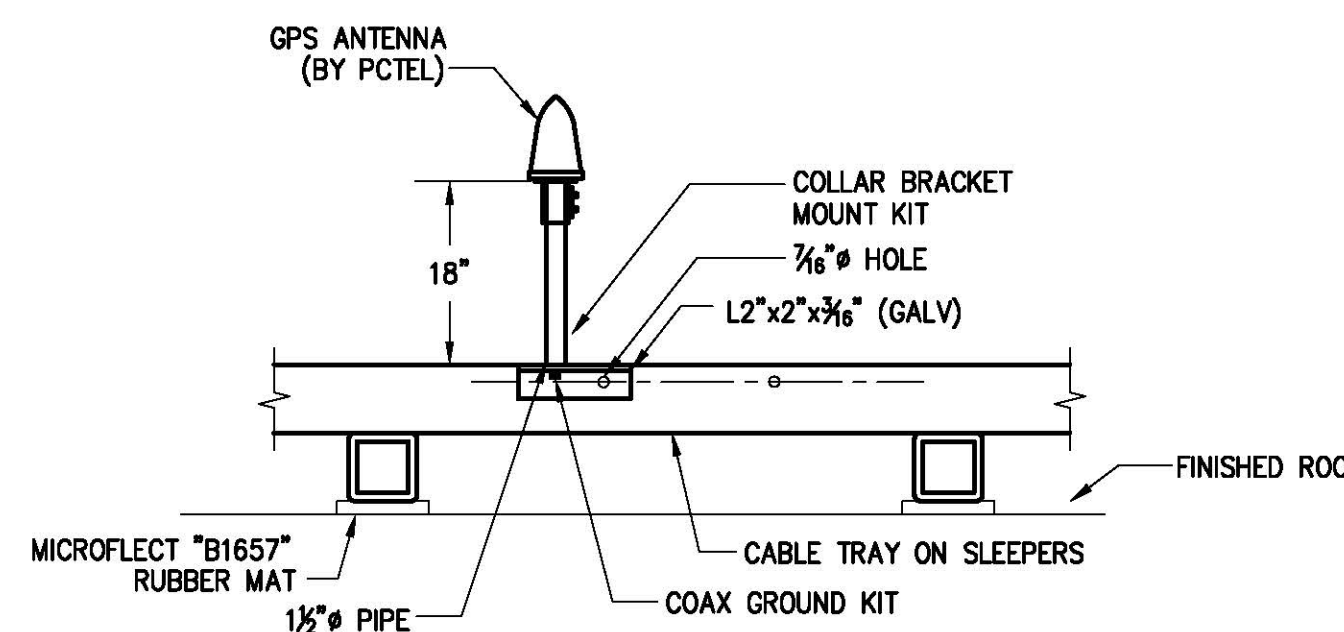
KATHREIN 800 10765V01K PANEL ANTENNA
DIMENSIONS: 75.5"H x 11.8"W x 6.0"D
WEIGHT: 51.8 LBS
1 PER SECTOR, TOTAL OF 3

ANTENNA DETAILS

SCALE: N.T.S.



PLAN



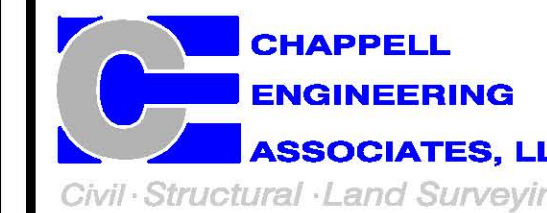
ELEVATION

1. LOCATION OF ANTENNA MUST HAVE CLEAR VIEW OF SOUTHERN SKY AND CANNOT HAVE ANY BLOCKAGES EXCEEDING 25% OF THE SURFACE AREA OF A HEMISPHERE AROUND THE ANTENNA.
2. ALL GPS ANTENNA LOCATIONS MUST BE ABLE TO RECEIVE CLEAR SIGNALS FROM A MINIMUM OF FOUR (4) SATELLITES. VERIFY WITH HANDHELD GPS BEFORE FINAL LOCATION OF GPS ANTENNA.

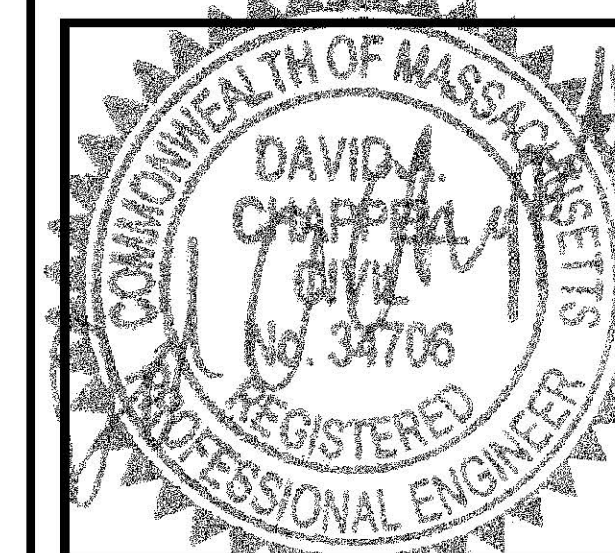
GPS MOUNTING DETAIL

SCALE: 1" = 1'-0"

T-MOBILE NORTHEAST LLC
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APPROVALS

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

PROJECT NO: 4BN1162B

DRAWN BY: CMC

CHECKED BY: JMT

SUBMITTALS

3	06/02/17	ZONING REVISED
2	04/25/17	ZONING FINAL
1	03/31/17	ZONING
0	03/10/17	ISSUED FOR REVIEW

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4BN1162B
LOFTS AT KENDALL
SQUARE
195 BINNEY STREET
CAMBRIDGE, MA 02142

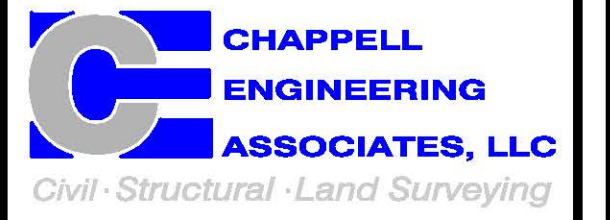
SHEET TITLE

ANTENNA PLAN &
DETAILS

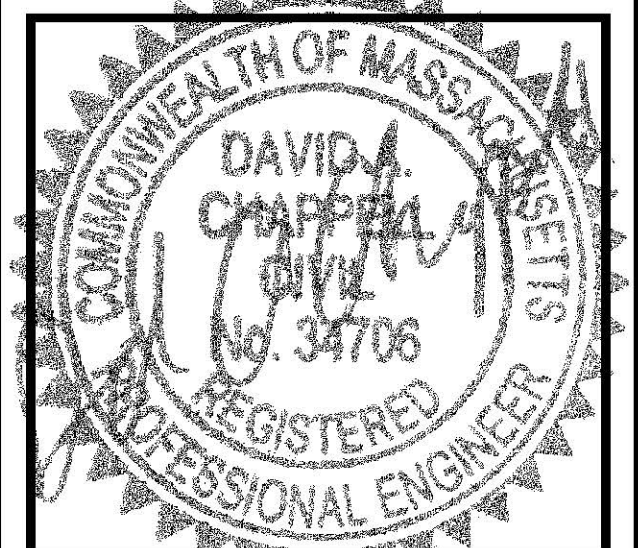
SHEET NUMBER

Z-3

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APPROVALS

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

PROJECT NO: 4BN1162B

DRAWN BY: CMC

CHECKED BY: JMT

SUBMITTALS

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0	03/10/17	ISSUED FOR REVIEW

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4BN1162B

LOFTS AT KENDALL SQUARE

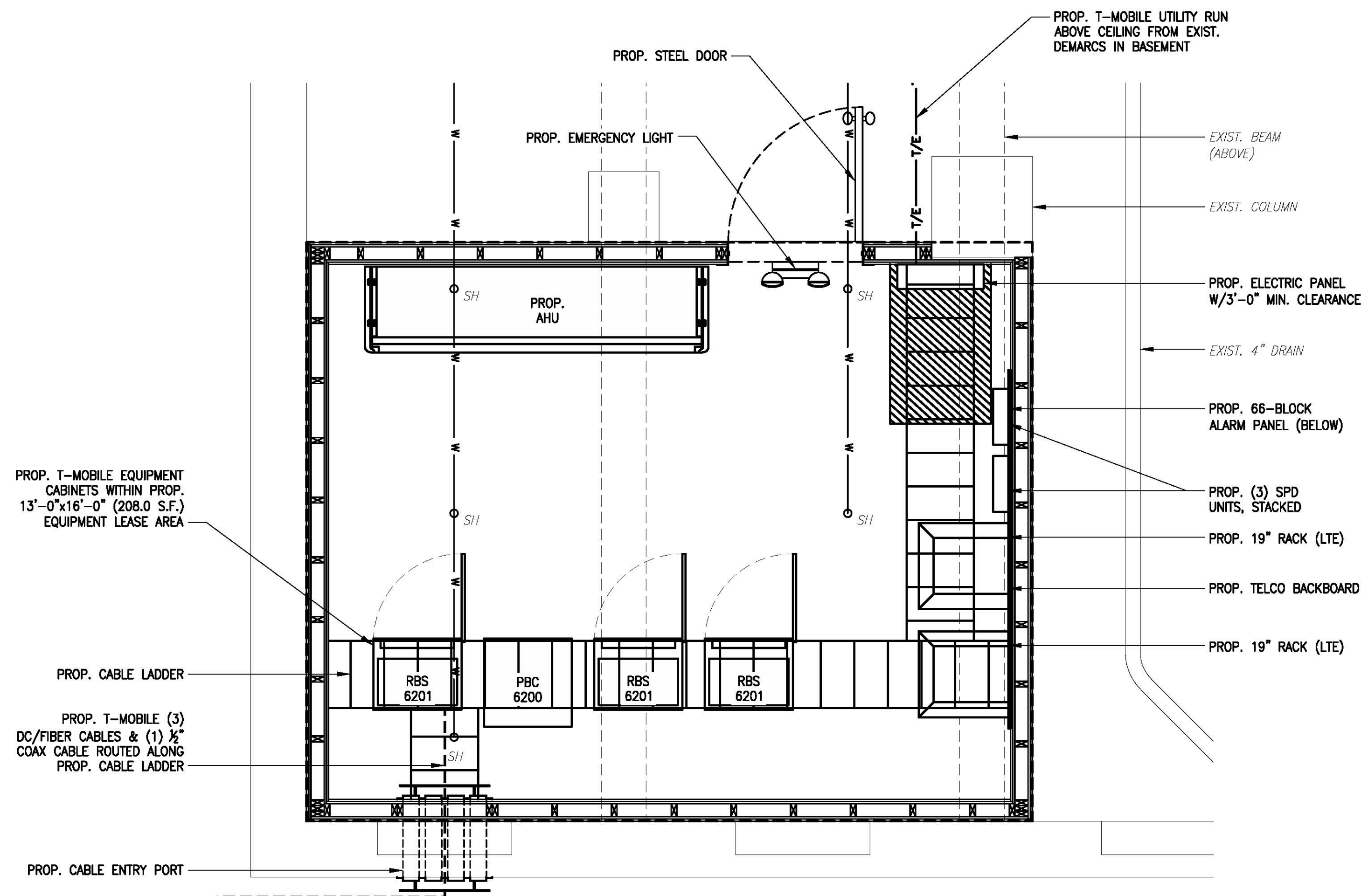
195 BINNEY STREET
 CAMBRIDGE, MA 02142

SHEET TITLE

EQUIPMENT PLAN & DETAILS

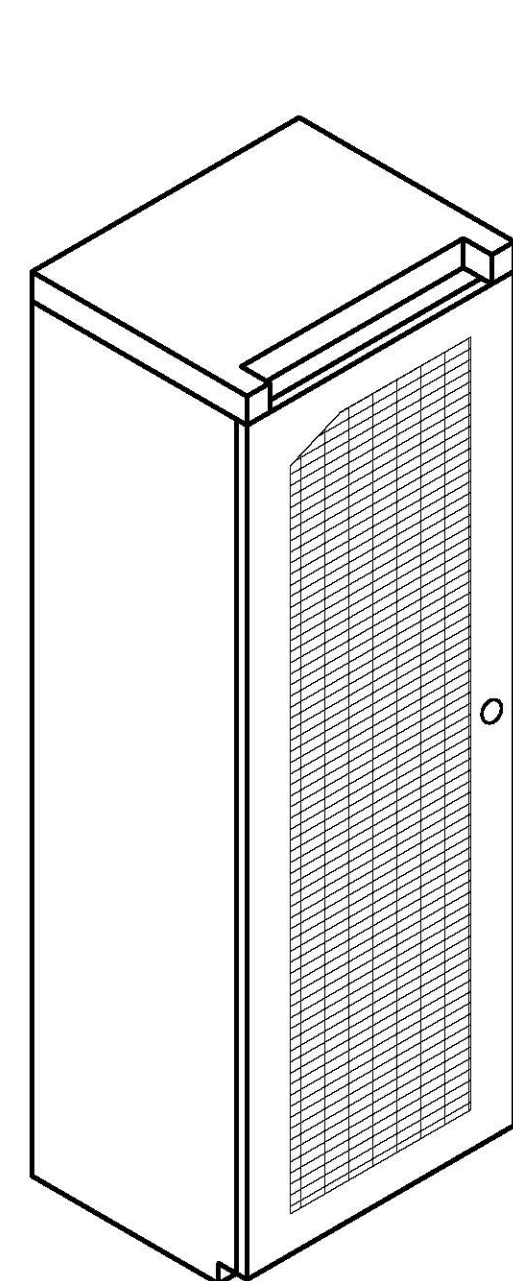
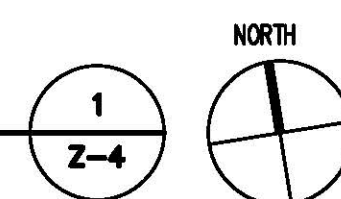
SHEET NUMBER

Z-4

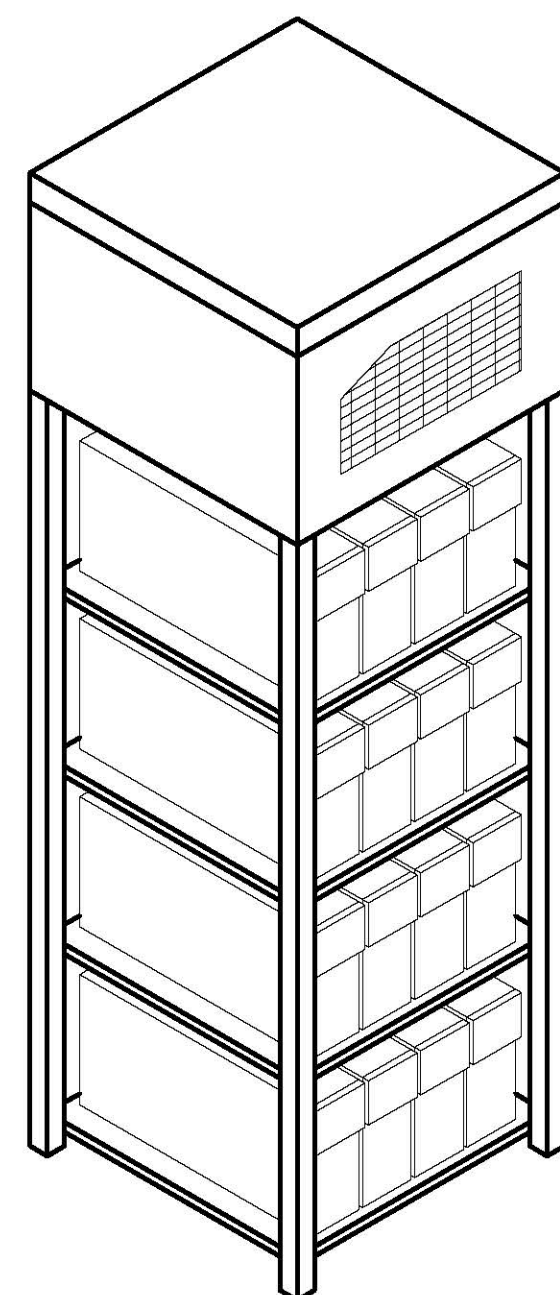


EQUIPMENT PLAN

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



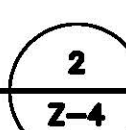
ERICSSON RBS 6201 INDOOR EQUIPMENT CABINET
 DIMENSIONS: 56.5"H x 23.6"W x 19.0"D
 TOTAL OF 1



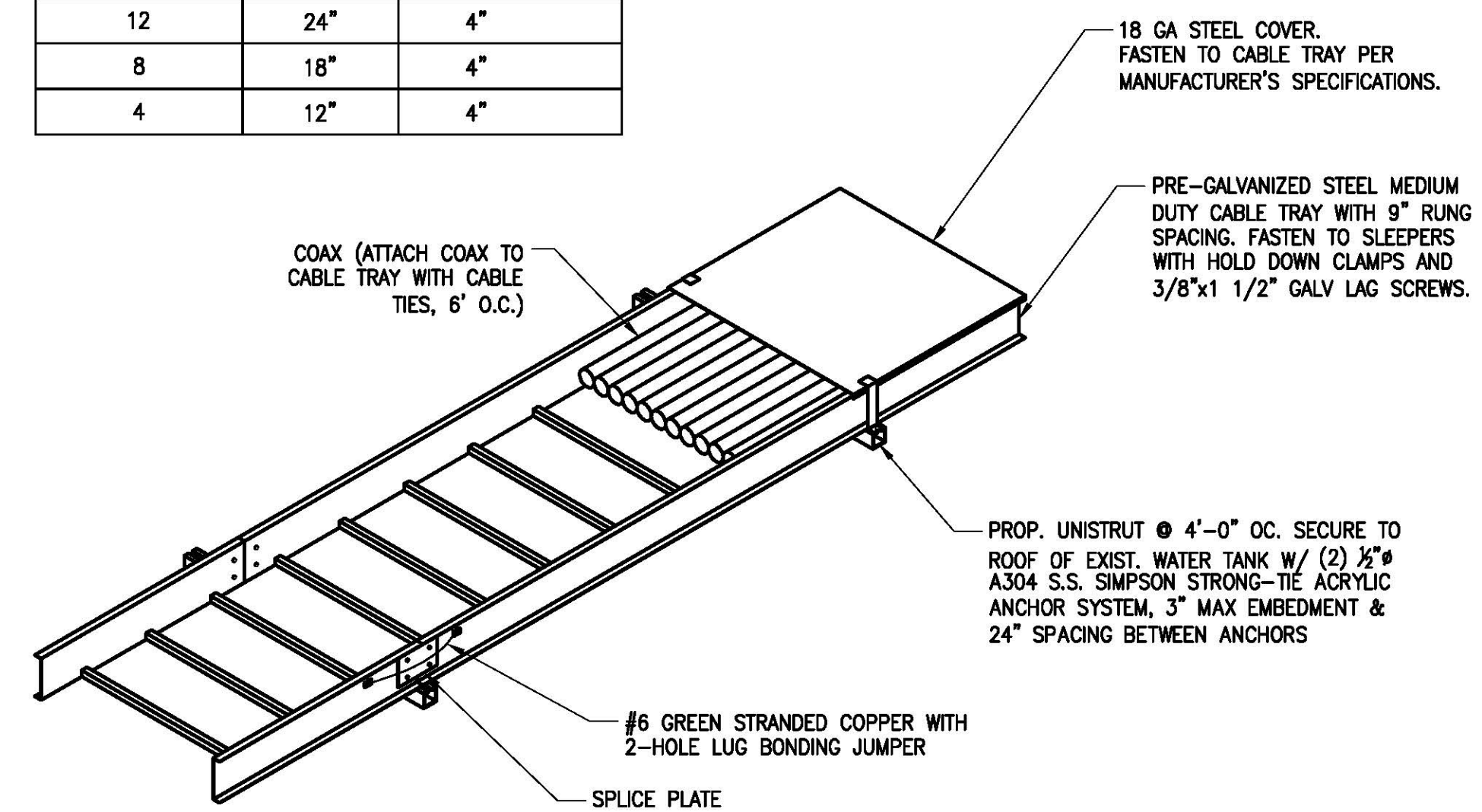
ERICSSON PBC 6200 INDOOR BATTERY RACK
 DIMENSIONS: 23.6"H x 23.6"W x 60.8"D
 TOTAL OF 1

EQUIPMENT DETAILS

SCALE: N.T.S.

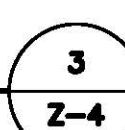


NUMBER OF COAXIAL CABLES	WIDTH OF CABLE TRAY	LOADING DEPTH OF CABLE TRAY
12	24"	4"
8	18"	4"
4	12"	4"



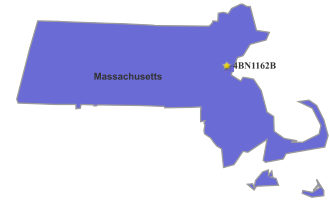
CABLE TRAY DETAIL

SCALE: NOT TO SCALE



4

Photographic Simulation Package



Proposed Wireless Telecommunications Facility:

4BN1162B Lofts @ Kendall Square
195 Binney Street
Cambridge, MA 02142

- proposed changes to existing Rooftop Mount Antenna Structure
- documentation photographs taken 03/15/17

Simulation package prepared by:

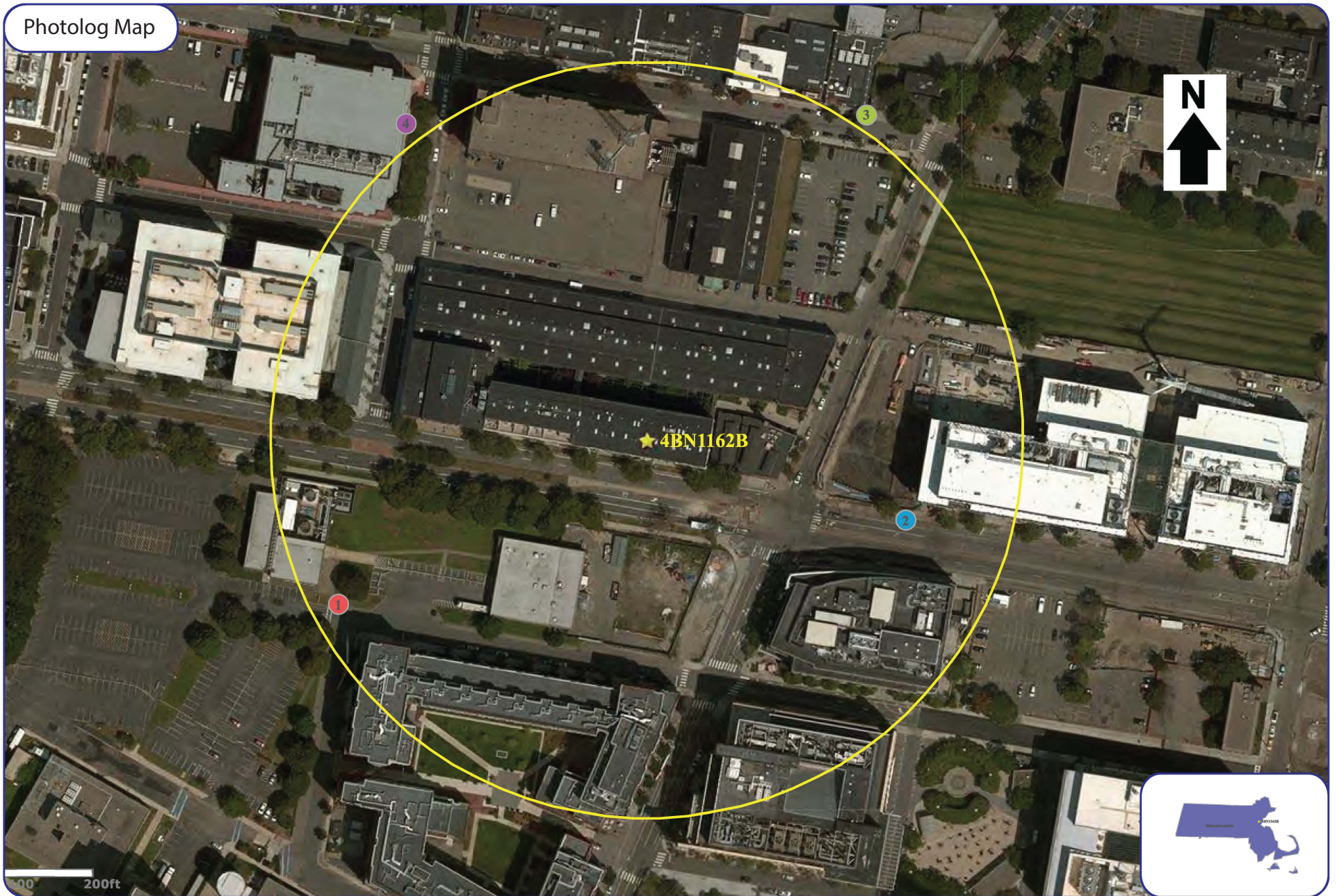
Virtual Site Simulations, LLC
28 Caswell Street
Suite 100
Narragansett, Rhode Island 02882

www.VirtualSiteSimulations.com

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Photolog Map



Proposed Upgrade to Existing Wireless Telecommunications Facility:

4BN1162B Lofts @ Kendall Square
195 Binney Street
Cambridge, MA 02142

Legend:

- ★ Facility Location
- ⓧ Photo Documentation location
- 500 Ft Radius

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution



Existing



Photo #	Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
1	Munroe Street	42.36537 -71.08461	+/- 0.09 Miles	South East	63.38	Year Round

Site: 4BN1162B Lofts @ Kendall Square

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution

3 of 10

Simulation



Photo #	Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
1	Munroe Street	42.36537 -71.08461	+/- 0.09 Miles	South East	63.38	Year Round

Site: 4BN1162B Lofts @ Kendall Square

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Existing



Photo #	Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
2	Binney Street	42.36568 -71.08181	+/- 0.07 Miles	West	284.27	Year Round

Site: 4BN1162B Lofts @ Kendall Square

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Simulation



Photo #	Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
2	Binney Street	42.36568 -71.08181	+/- 0.07 Miles	West	284.27	Year Round

Site: 4BN1162B Lofts @ Kendall Square

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Existing



Photo #	Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
3	Bent Street	42.36716 -71.08201	+/- 0.10 Miles	North West	212.9	Year Round

Site: 4BN1162B Lofts @ Kendall Square

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Simulation



Photo #	Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
3	Bent Street	42.36716 -71.08201	+/- 0.10 Miles	North West	212.9	Year Round

Site: 4BN1162B Lofts @ Kendall Square

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution

8 of 10

Existing



Photo #	Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
4	5th Street	42.36712 -71.08427	+/- 0.10 Miles	North East	144.78	Year Round

Site: 4BN1162B Lofts @ Kendall Square

Photo Simulations are for demonstration purposes only. It should not be used in any other fashion or with any other intent. The accuracy of the resulting data is not guaranteed and is not for redistribution

9 of 10

Simulation



Photo #	Location	Gps Coordinates	Distance to site	Orientation	Bearing to site	Visibility
4	5th Street	42.36712 -71.08427	+/- 0.10 Miles	North East	144.78	Year Round

Site: 4BN1162B Lofts @ Kendall Square

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10 of 10

5

REPORT OF
RADIO FREQUENCY ENGINEER

The undersigned hereby states the following in support of the application by T-Mobile Northeast LLC (“*T-Mobile*” or “*Applicant*”) to install 76-ft above ground level (hereafter “AGL”) wireless communications facility (the “Facility”), install panel antennas at the 83-ft AGL antenna centerline mark on the existing penthouse, together with related amplifiers, cables, fiber and other associated antenna equipment, including remote radio heads, surge arrestors, and global positioning system antennas with associated electronic equipment, and other appurtenances located on the roof of the existing building located at 195 Binney Street, Cambridge, MA 02142 (the “Site”).

1. I am a Radio Frequency Engineer employed by T-Mobile, with an office located at 15 Commerce Way, Suite B, Norton, Massachusetts.
2. My primary responsibilities include radio frequency design and planning in the Commonwealth of Massachusetts, including the City of Cambridge and surrounding communities.
3. As enabled under its Federal Communications Commission (“FCC”) License, T-Mobile seeks to design its wireless network to provide reliable and adequate wireless services to its customers, whether those customers are on the street, inside a vehicle, or inside a building. Providing reliable and adequate service to its customers in each context is critical for T-Mobile to provide the quality of wireless service that customers demand, and to meet the objectives of Congress that a robust, competitive and low cost wireless communications capacity be developed to serve the entire nation.
4. T-Mobile is also designing its network to provide enhanced high speed data services commonly referred to as LTE - “long term evolution” service. LTE will be incorporated into this Facility.
5. T-Mobile is using its best efforts, to the maximum extent possible, to install its wireless communications services facilities network utilizing existing structures to avoid the need to construct new towers. Such is the case here where we have identified an existing building in a permitted zoning district.
6. I have thoroughly reviewed the radio frequency (or RF) engineering studies, reports and computer models prepared by T-Mobile with respect to the Facility.
7. For T-Mobile to build out its network and meet customers demand for enhanced voice and data services, T-Mobile must have in place a system of low power 'cell sites' to serve mobile devices. A typical cell site, such as the one proposed, consists of antennas mounted to a building, tower, church or other structure. The antennas are connected to radio operating equipment housed at or near the structure.
8. To maintain effective, reliable and uninterrupted service, there must be a continuous series of cell sites located within proximity to each other to overlap in a system comparable to a honeycomb pattern. If there is no cell site available to accept/receive the signal, network service to the mobile device, will terminate involuntarily. Accordingly, the overlap of coverage is necessary for the signal to transfer from one cell site to another cell site seamlessly and without involuntary termination.
9. Several factors determine the distance between cell sites, including, but not limited to, topography, physical obstructions, foliage, antenna height, operating frequency and line-of-sight.

10. Based on the radio frequency studies, reports and computer models prepared in connection to this project, it is my professional assertion that there is inadequate network “capacity or bandwidth” available to existing and potential T-Mobile customers in East Cambridge, especially on areas bounded by Spring Street on the north, Edwin Land Blvd on the east, Binney Street on the south, and 5th Street on the west.
11. The Facility will enhance T-Mobile’s ability to provide adequate coverage in the area and will increase its capacity to better serve the residents and businesses around these areas of East Cambridge and to subscribers traveling through these areas.
12. The Facility will comply with all existing FCC Guidelines for Evaluating the Environmental Effects of Radio Frequency Radiation.
13. The Facility will be installed, erected, maintained and used in compliance with all applicable Federal, State and local regulations, including, but not limited to applicable regulations administered by the Federal Aviation Administration, Massachusetts Aeronautics Commission and the FCC.
14. T-Mobile is assigned specific frequencies within which it must operate its facilities. The proposed Facility will not interfere with existing public safety communications systems, television or radio signals.
15. Based upon the RF studies conducted for this site, it is my professional opinion that the Facility’s antenna system is at the proper height necessary to ensure adequate voice and data services to residents and businesses in the area mentioned on Item 10, including other subscribers passing and traveling within the area.

Executed this 18th day of May 2017.



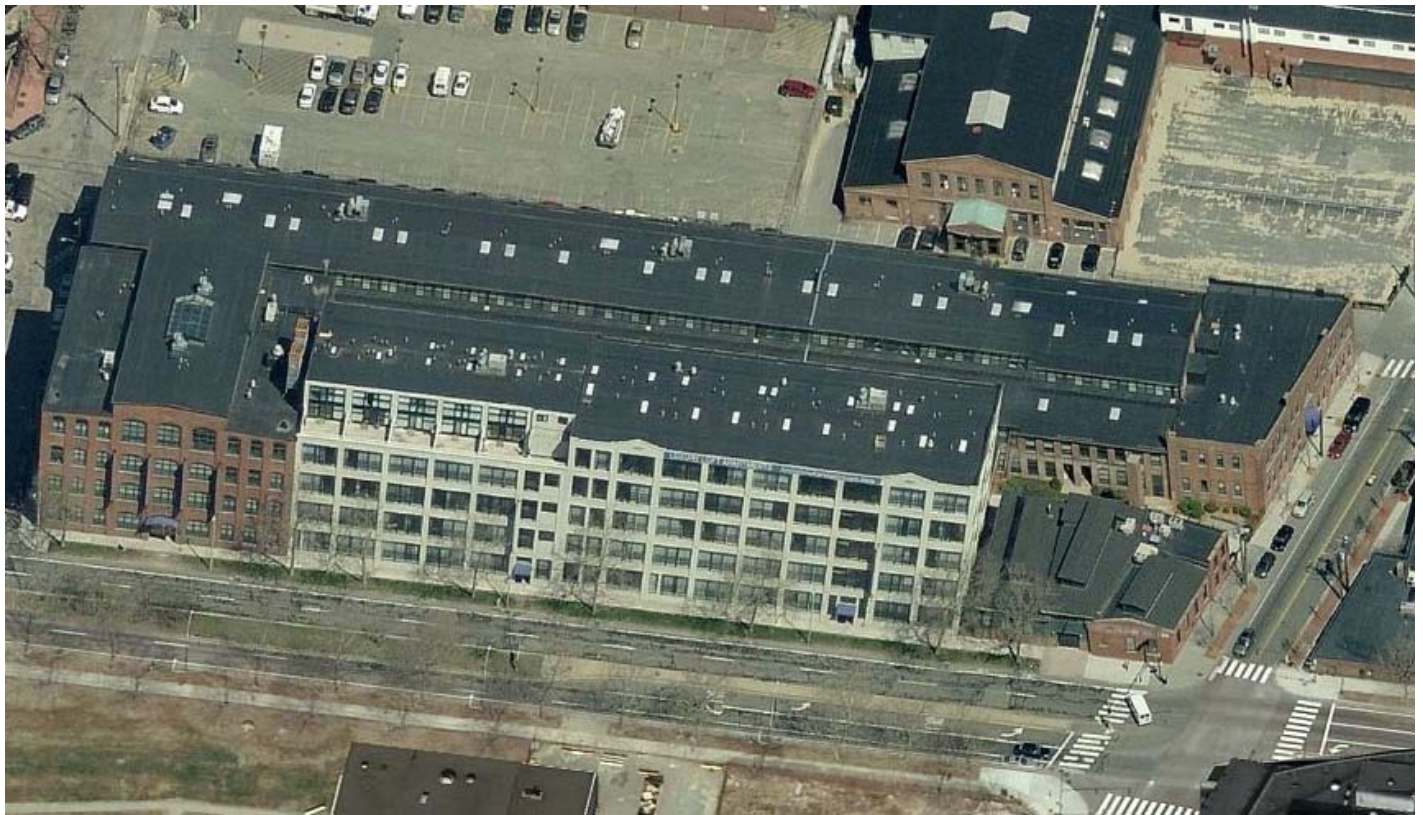
George Adaclog
Senior RF Engineer
T-Mobile USA, INC.
15 Commerce Way, Suite B, Norton, MA 02766

6

• • **T** • • **Mobile** • •

15 Commerce Way
Suite B
Norton, MA 02766

STRUCTURAL ANALYSIS
4BN1162B – LOFTS AT KENDALL SQUARE



Address:
195 BINNEY STREET
CAMBRIDGE, MA 02142

Date:
APRIL 13, 2017



April 13, 2017

•T-Mobile•
15 Commerce Way
Suite B
Norton, MA 02766

RE:

Candidate Number 4BN1162B
Candidate Name Lofts at Kendall Square
Candidate Address 195 Binney Street, Cambridge, MA 02142

Chappell Engineering Associates, LLC has performed a structural analysis of the proposed rooftop RF chimneys being proposed at the above-referenced location. T-Mobile proposes to install a ground-level interior equipment room in an adjacent building and installing three (3) independent RF chimneys on the roof of the loft apartments located along Binney Street. Three (3) proposed antennas will be located within each chimney assembly.


The existing building is a multi-story brick masonry structure originally designed as a manufacturing facility. Based upon our research and the details contained within the existing 1997 rehabilitation plans, the building was converted to residential apartments sometime shortly after 1997. The roof of building 4 (as indicated and called out on the proposed rehabilitation drawings titled 'Worthington Place') consists of trusses spanning approximately 65 ft to the exterior masonry bearing walls. Each truss is located at approximately 20ft on-center. The rehabilitation drawings do not directly indicate the roof deck construction. Based upon our field visits, the decking appears visible in the area of the roof hatch. This is confirmed in the detail provided on the "Worthington Place" structural drawings sheet S1.5 Section 4 for the skylight installation which identifies the roof as a 'gypsum deck' which is supported by steel channels running from truss-to-truss.

T-Mobile's antenna arrays will consist of three (3) sectors, each supporting 3 panel antennas (3 per sector, total of 9) and ancillary hardware (remote radio units, cabling routed along the roof, and a GPS antenna). The proposed RF chimneys will be secured to the existing steel channel roofing members. Details of the antenna mounts are included in our construction drawings.

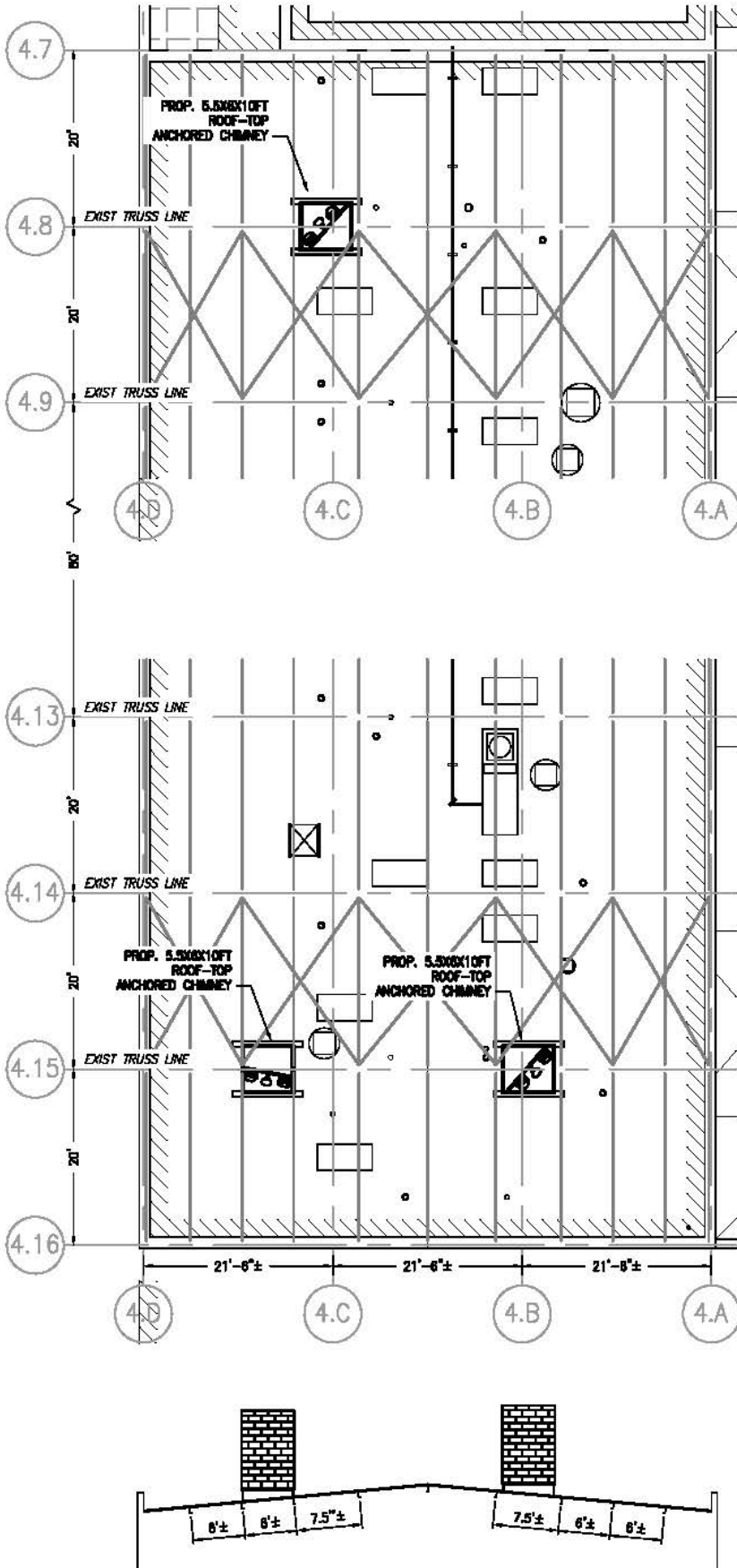
Based upon our site walks, field measurements, our review of the loads and of the existing available building plans, and our analysis of the existing structural members under the proposed loading, Chappell Engineering Associates, LLC has determined that the existing structure **has adequate capacity** to support the proposed antenna configuration as shown on the construction drawings. Our analysis and results are enclosed in this report.

If you have any questions regarding this matter, please do not hesitate to call.

Very truly yours,
CHAPPELL ENGINEERING ASSOCIATES, LLC


Clement J Salek, P.E.
CJS/cjs





SNOW LOADS

GROUND SNOW LOAD, USE $p_g=40\text{psf}$

ROOF SLOPE = APPROX 5°, $C_e=1.0$

FLAT ROOF SNOW LOAD, $p_f = 0.7(C_e)(C_t)(I)(p_g)$

$C_e = 1.0$ (Table 7-2)
 $C_t = 1.0$ (Table 7-3)
 $I = 1.0$ (Table 7-4)

$p_f = 0.7(1.0)(1.0)(1.0)(40)$
 $p_f = 28\text{psf}$

$p_s = C_e \times p_f$
 $p_s = 1.0(28)$
 $p_s = 28\text{psf}$

Chimneys will be supported/tied to the existing roof support channels below the existing gypsum/concrete roof deck. The existing channels are approximately 6ft on-center.

Uniform SNOW Load applied to channels: (s=6ft)

$W_s = p_s(s)$
 $W_s = 28\text{psf}(6\text{ft})$
 $W_s = 168\text{plf}$

WIND LOADS

VELOCITY PRESSURE, q_z

$q_z = 0.0256 \times K_z \times K_{zt} \times K_d \times V^2 \times I$

where:

$V = 105\text{mph}$
 $K_z = 0.98$ Table 6-3 ASCE 7
 $K_{zt} = 1.0$ Section 6.5.7.2
 $K_d = 0.80$ Table 6-4
 $I = 1.0$ Table 6-1

$q_z = 24.4\text{psf}$

REFERENCE WIND PRESSURE, p

$p = q_z \times C_f \times G$

where:

$C_f = 1.3$ Fig 6-20 to Fig 6-23
 $G = 0.85$ Section 6.5.8

$p = 24.4 \times 1.3 \times 0.85$
 $p = 27\text{psf}$

ROOF DEAD LOADS

Rehabilitation drawings do not directly indicate the roof deck construction. Based upon our field visits, the decking appears visible in the area of the roof hatch. This is confirmed in the detail provided on the "Worthington Place" structural drawings sheet S1.5 Section 4 for the skylight installation which identifies the roof as a 'gypsum deck' which is supported by steel channels running from truss-to-truss.

For calculation purposes, assume the gypsum decking to be 2" thick with weight = 110pcf.

Steel channel spacing, s is shown on the rehabilitation drawings as approximately 6ft.

Deck load to channel:

$w = (2/12) \times 110\text{pcf} \times 6\text{ft}$

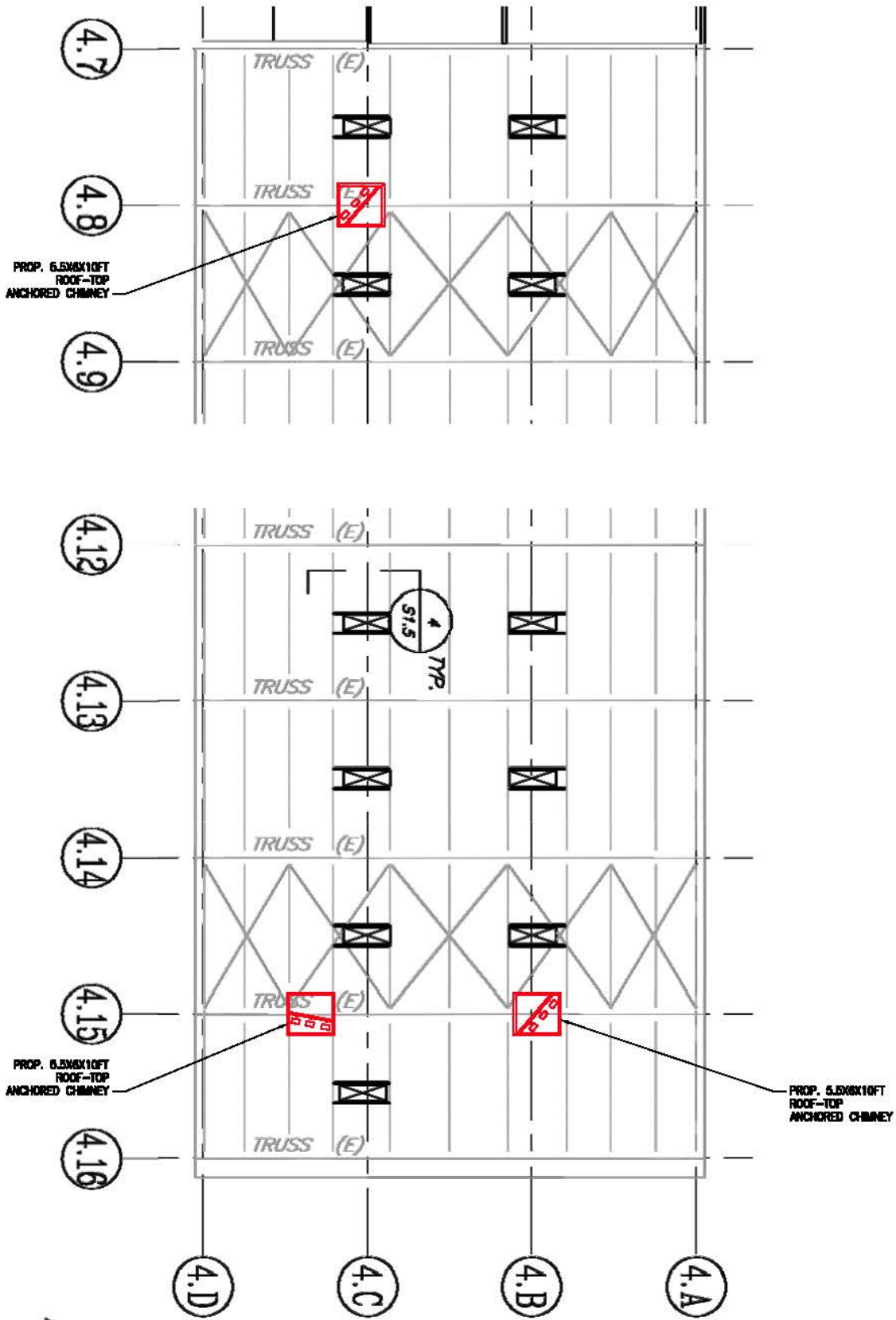


ROOF PLAN AND SECTION
SCALE: 1"=20'

1
SDC

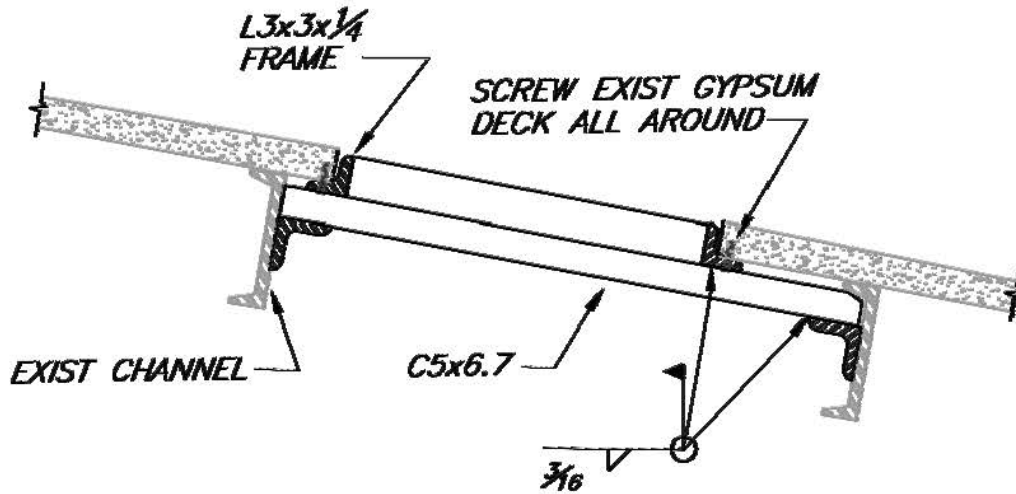
EXISTING ROOF PLANKS
AT ROOF HATCH
SCALE: 1"=20'

2
SDC



EXISTING REHABILITATION ROOF PLAN

SCALE: 1"=20'



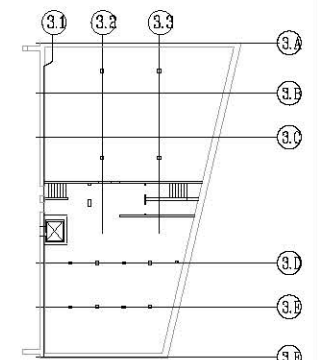
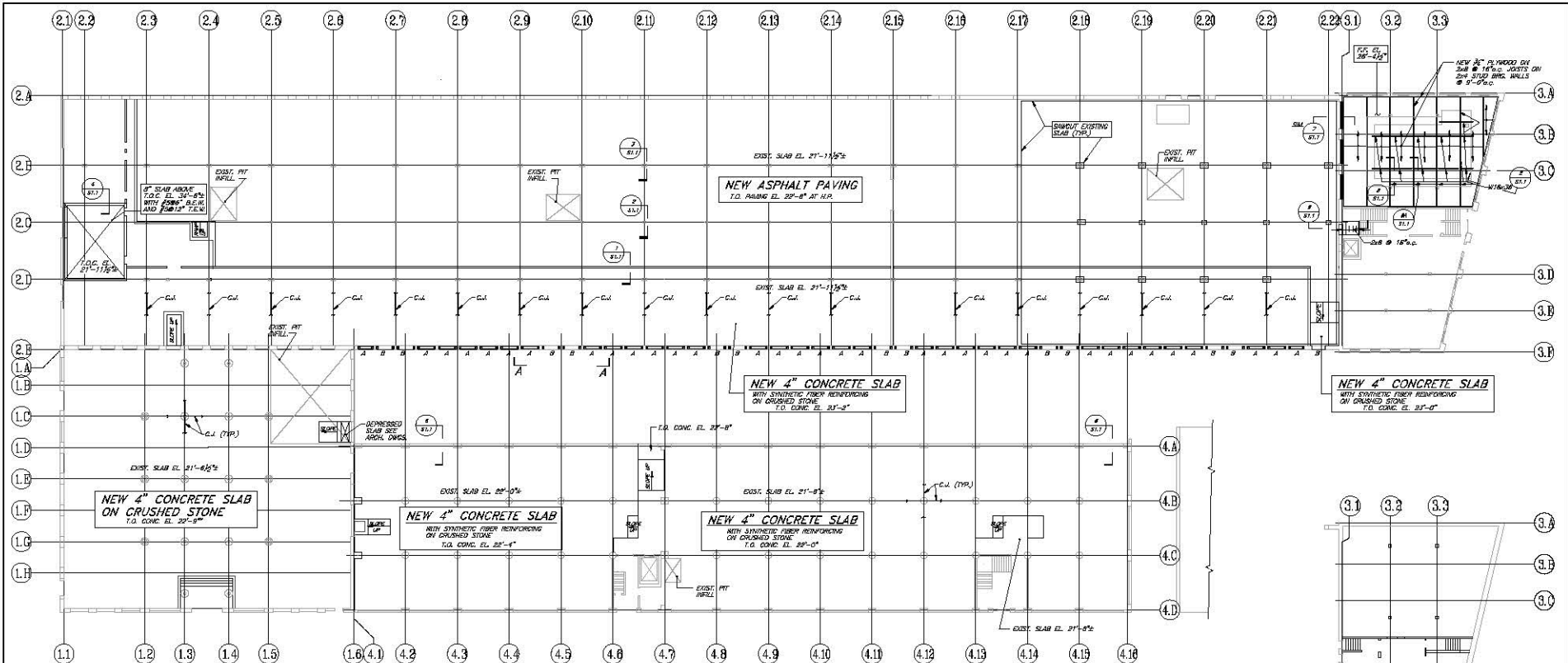
SECTION
 $\frac{3}{4}'' = 1' - 0''$

4

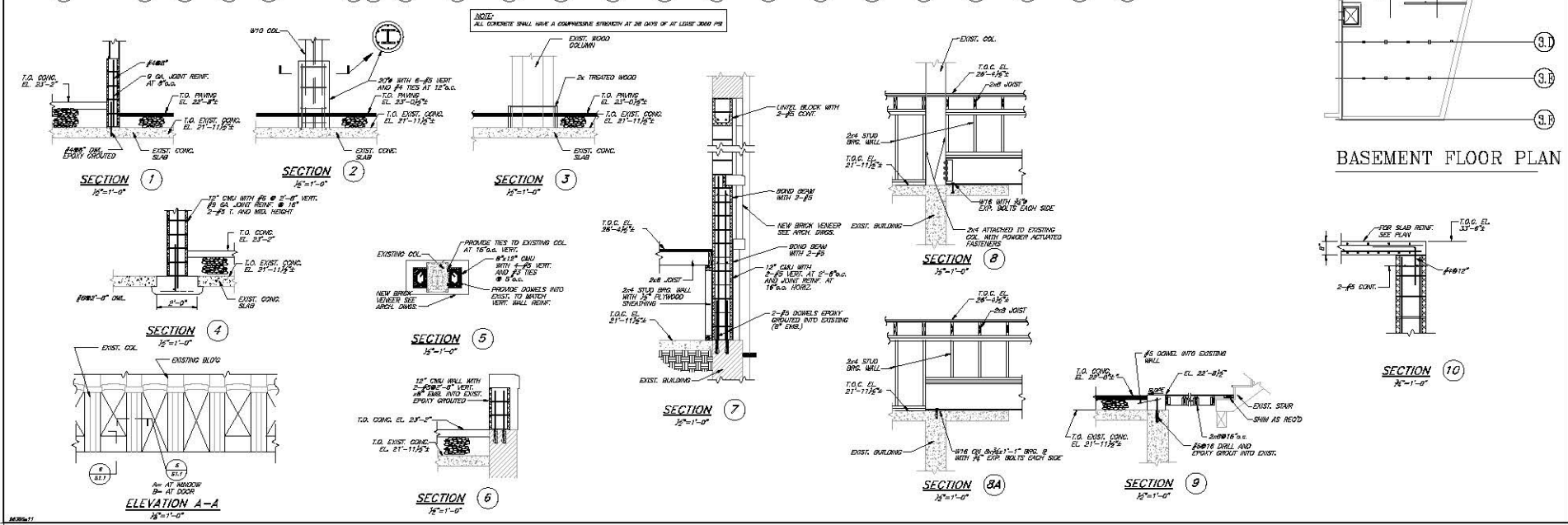
EXISTING ROOF SECTION

SCALE: 1"=20'

4
SDC



BASEMENT FLOOR PLAN



ELEVATION A-A
1/2"=1'-0"

SECTION 6
1/2"=1'-0"

SECTION 8A
1/2"=1'-0"

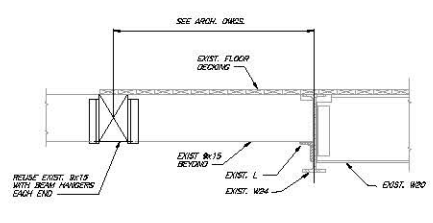
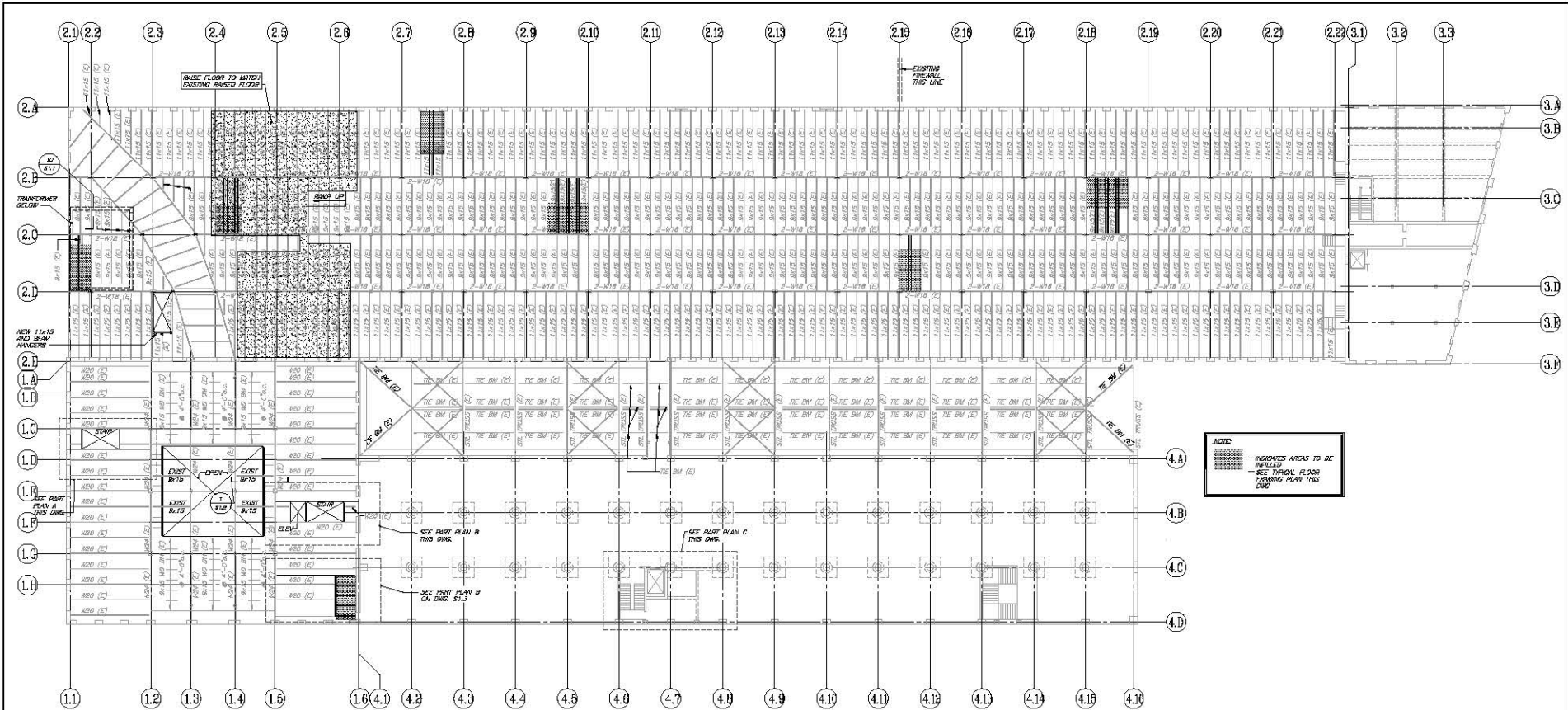
SECTION 9
1/2"=1'-0"

SECTION 10
1/2"=1'-0"

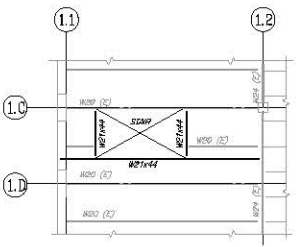
HMFH Architects, Inc.
3000 Massachusetts Avenue
Cambridge, MA 02142
Tel: 617.452.1000
Fax: 617.452.1001

FOLEY & BUHL ENGINEERING, INC.
1000 Massachusetts Avenue
Cambridge, MA 02142
Tel: 617.452.1000
Fax: 617.452.1001

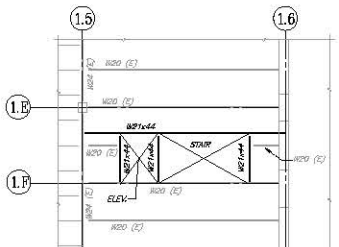
Worthington Place
Cambridge, Massachusetts
Ground Floor Plan
Date: 03/20/14
Scale: 1/8"=1'-0"



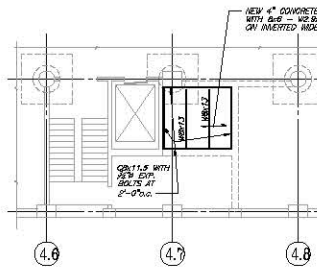
SECTION 1
1/8" = 1'-0"



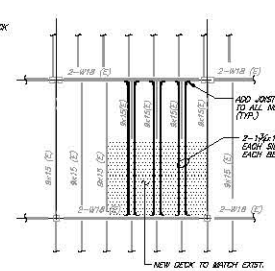
STAIR FRAMING - PART PLAN A
1/8" = 1'-0"



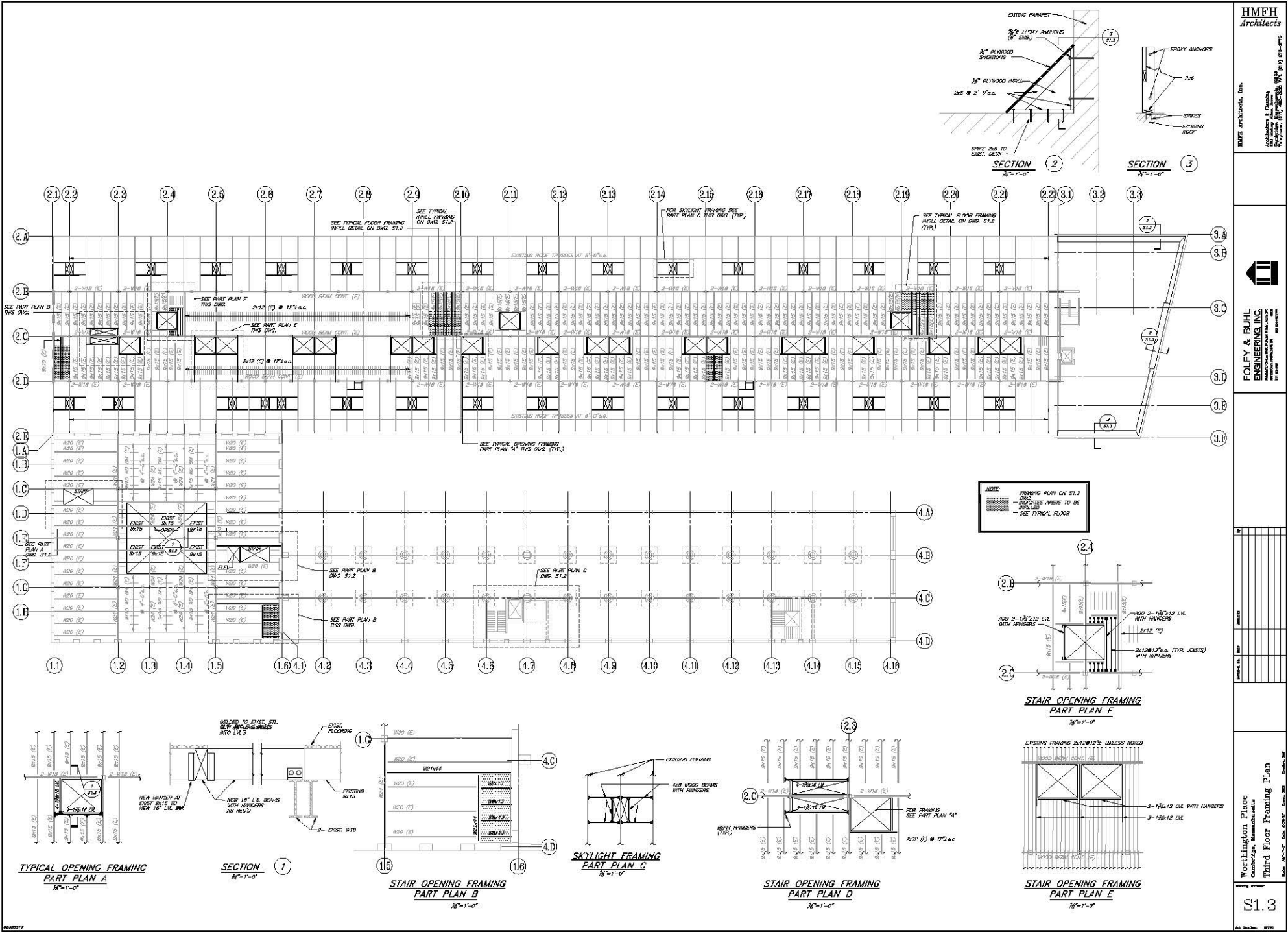
STAIR FRAMING - PART PLAN B
1/8" = 1'-0"



STAIR FRAMING - PART PLAN C
1/8" = 1'-0"



TYPICAL FLOOR INFILL FRAMING
1/8" = 1'-0"



NOTE:
 FRAMING PLAN ON ST. 2
 SHOWN AREAS TO BE
 ADDED ARE TO BE
 SHOWN
 SEE TYPICAL FLOOR

TYPICAL OPENING FRAMING
 PART PLAN A
 16'-11"-0"

SECTION 1
 16'-11"-0"

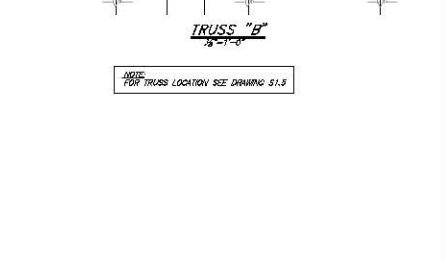
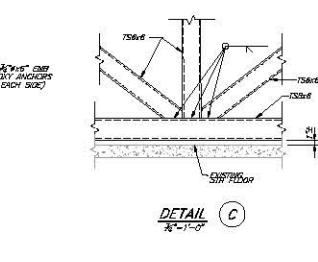
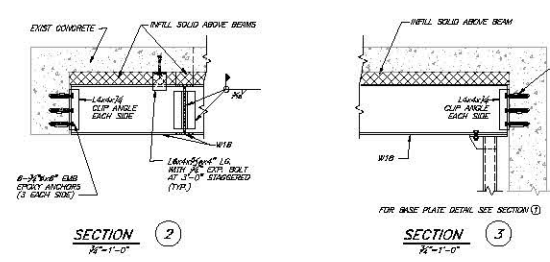
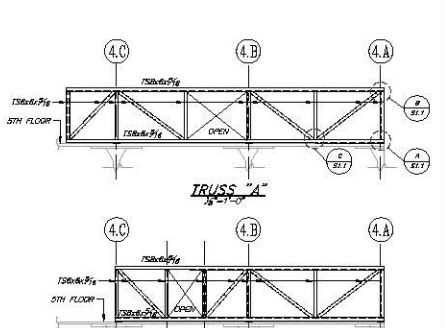
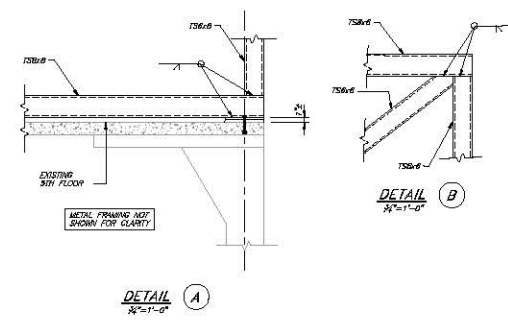
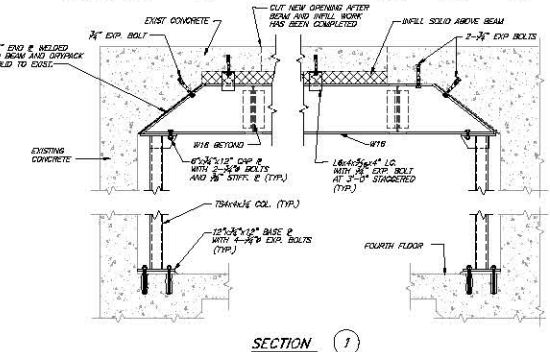
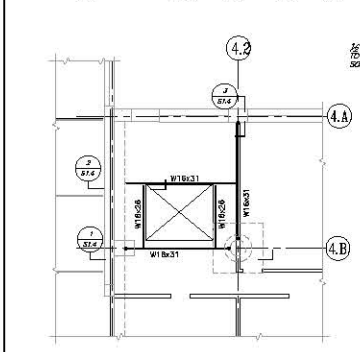
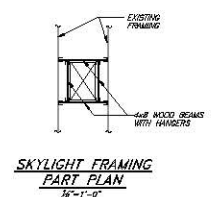
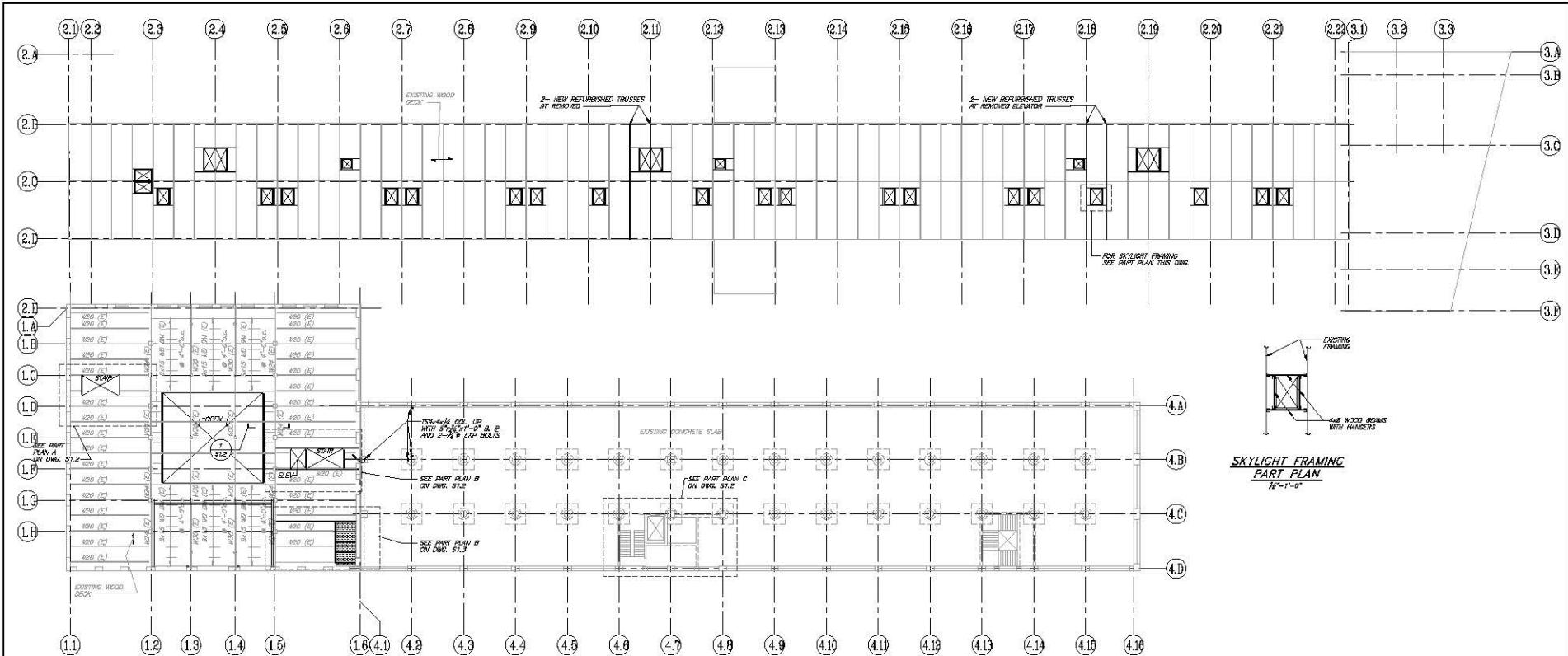
STAIR OPENING FRAMING
 PART PLAN B
 16'-11"-0"

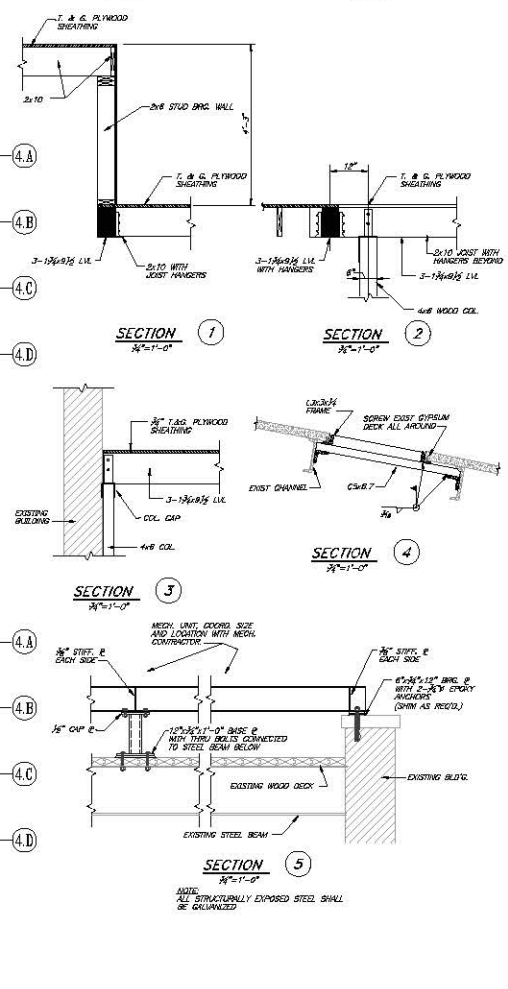
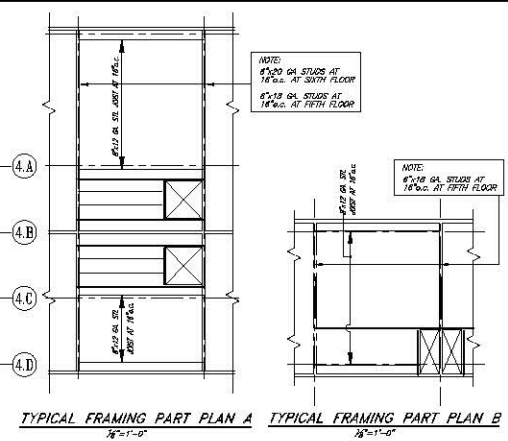
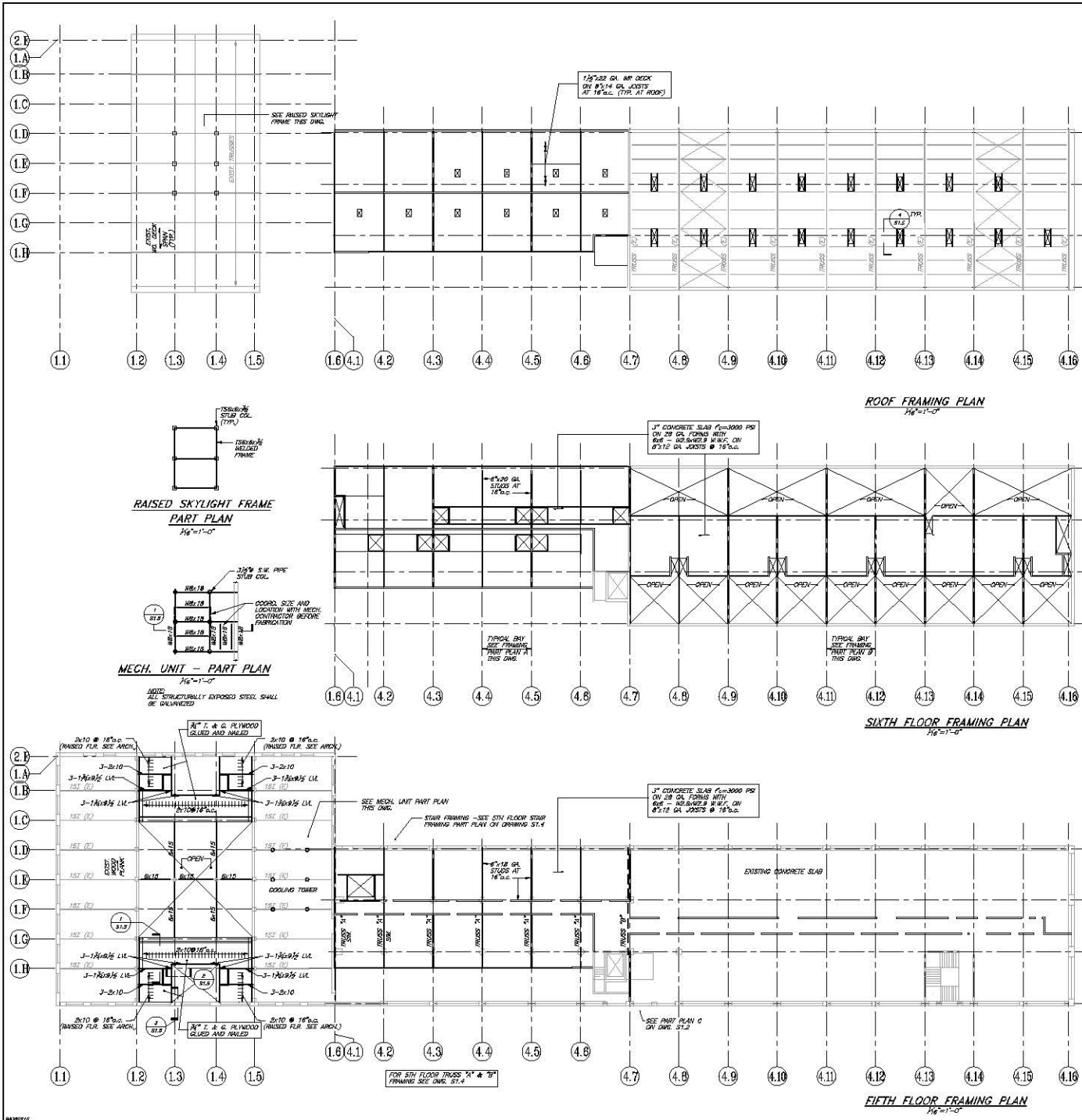
SKYLIGHT FRAMING
 PART PLAN C
 16'-11"-0"

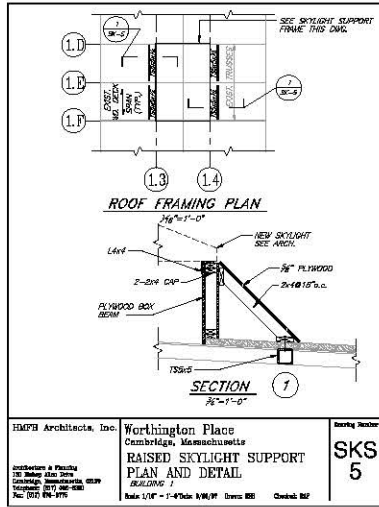
STAIR OPENING FRAMING
 PART PLAN D
 16'-11"-0"

STAIR OPENING FRAMING
 PART PLAN E
 16'-11"-0"

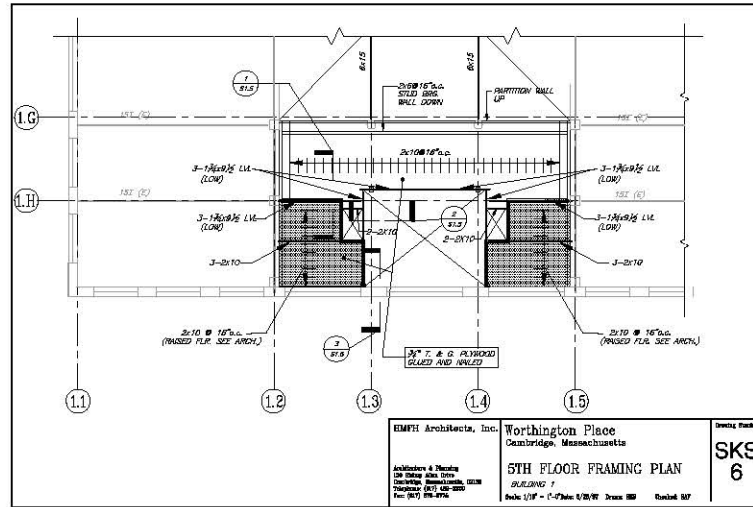
STAIR OPENING FRAMING
 PART PLAN F
 16'-11"-0"



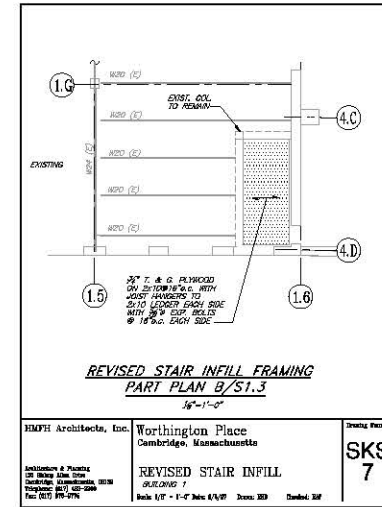




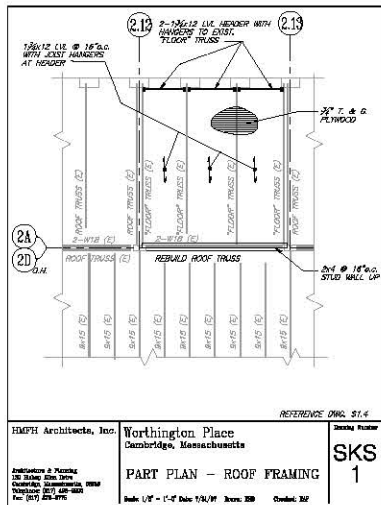
HMPH Architects, Inc. **Worthington Place**
 Cambridge, Massachusetts
RAISED SKYLIGHT SUPPORT PLAN AND DETAIL
 BUILDING 1
 Scale: 1/4" = 1'-0" Date: 3/16/07 Draw: RB Check: BF
 Drawing Number: **SKS 5**



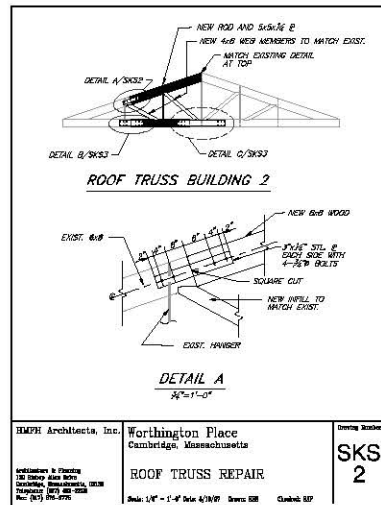
HMPH Architects, Inc. **Worthington Place**
 Cambridge, Massachusetts
5TH FLOOR FRAMING PLAN
 BUILDING 1
 Scale: 1/4" = 1'-0" Date: 3/16/07 Draw: RB Check: BF
 Drawing Number: **SKS 6**



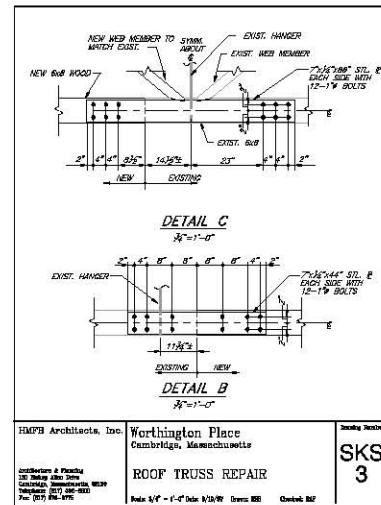
HMPH Architects, Inc. **Worthington Place**
 Cambridge, Massachusetts
REVISED STAIR INFILL PART PLAN B/S1.3
 BUILDING 1
 Scale: 1/4" = 1'-0" Date: 4/16/07 Draw: RB Check: BF
 Drawing Number: **SKS 7**



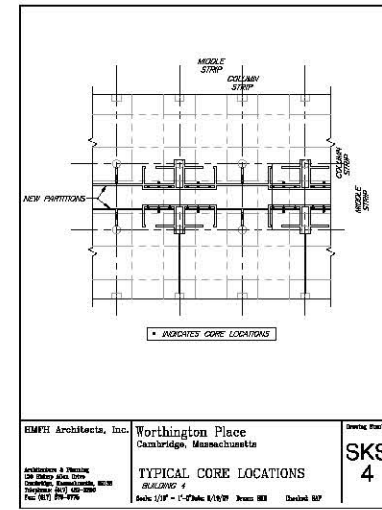
HMPH Architects, Inc. **Worthington Place**
 Cambridge, Massachusetts
PART PLAN - ROOF FRAMING
 BUILDING 1
 Scale: 1/4" = 1'-0" Date: 3/16/07 Draw: RB Check: BF
 Drawing Number: **SKS 1**



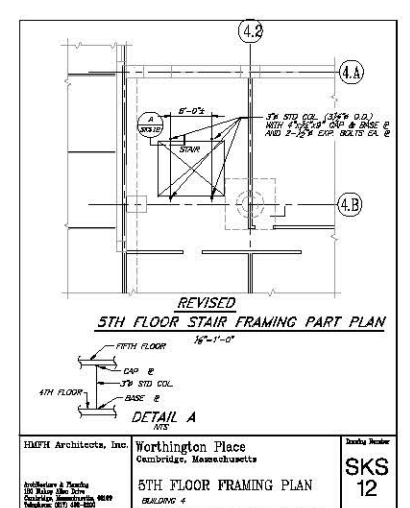
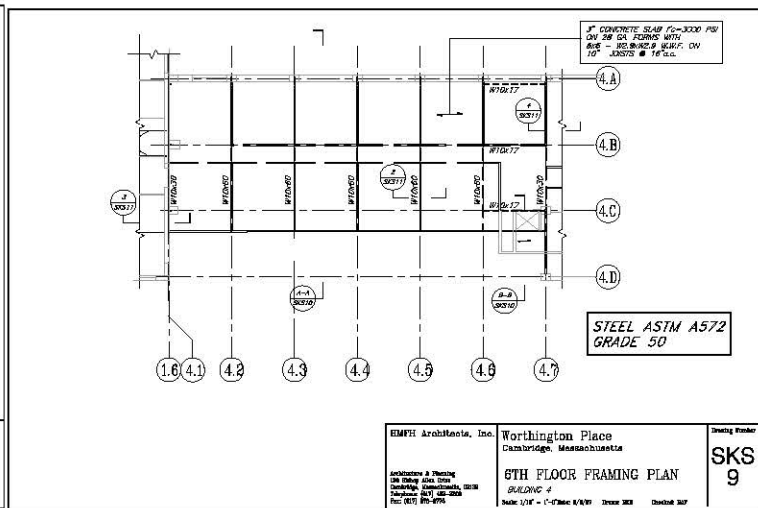
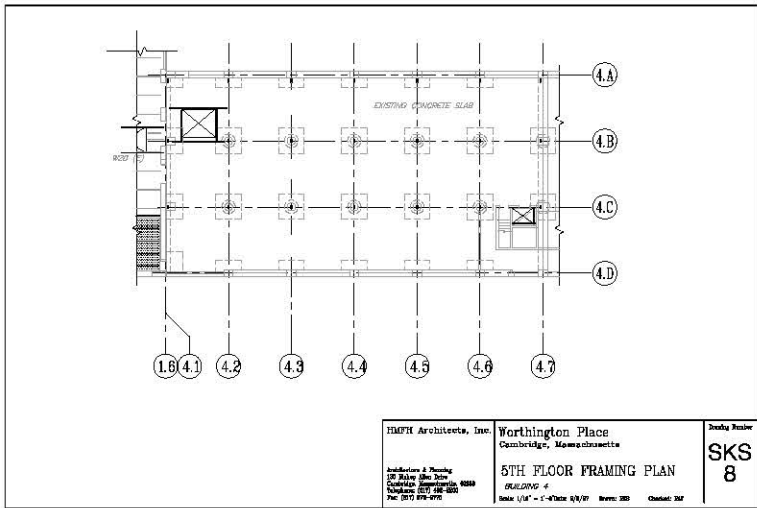
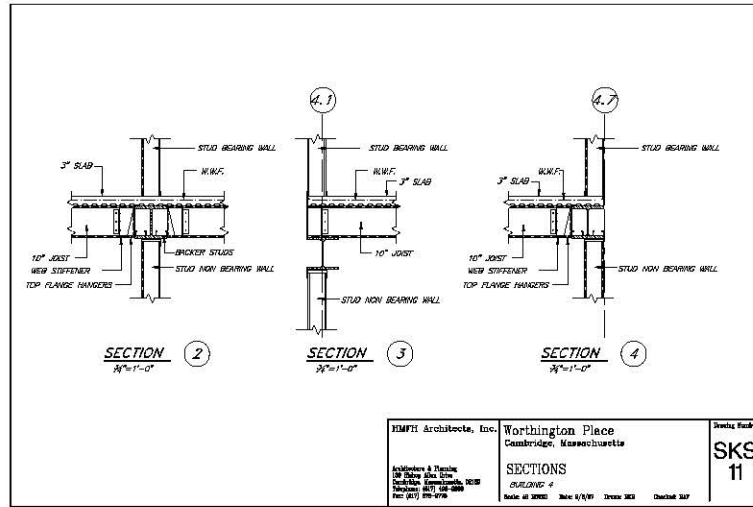
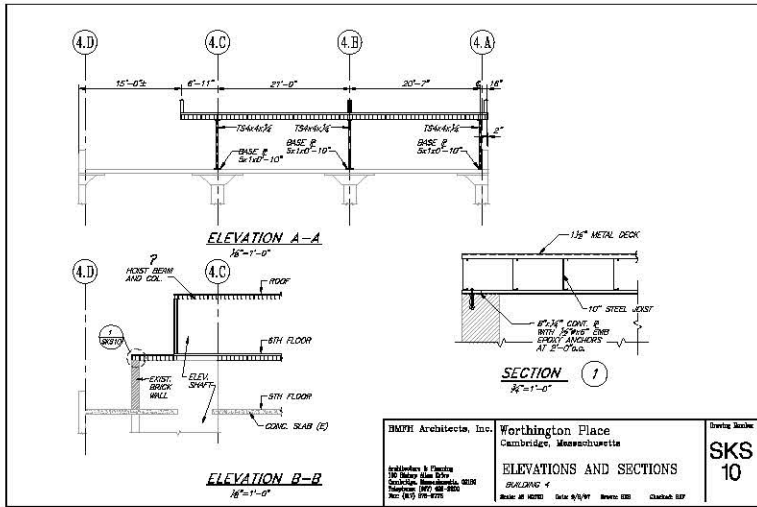
HMPH Architects, Inc. **Worthington Place**
 Cambridge, Massachusetts
ROOF TRUSS REPAIR
 BUILDING 1
 Scale: 1/4" = 1'-0" Date: 4/16/07 Draw: RB Check: BF
 Drawing Number: **SKS 2**

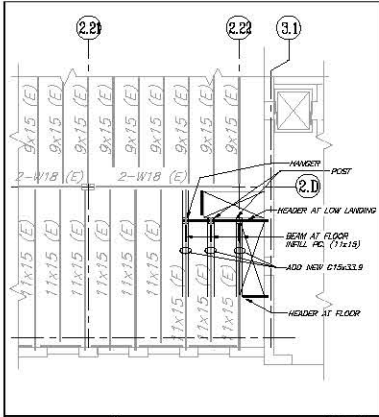


HMPH Architects, Inc. **Worthington Place**
 Cambridge, Massachusetts
ROOF TRUSS REPAIR
 BUILDING 1
 Scale: 1/4" = 1'-0" Date: 4/16/07 Draw: RB Check: BF
 Drawing Number: **SKS 3**

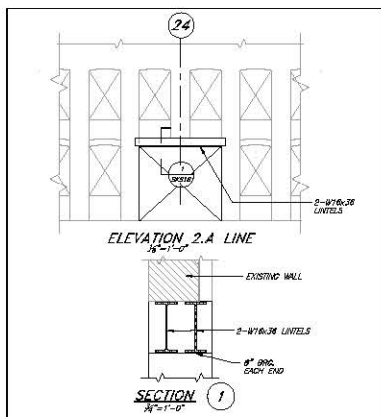


HMPH Architects, Inc. **Worthington Place**
 Cambridge, Massachusetts
TYPICAL CORE LOCATIONS
 BUILDING 1
 Scale: 1/4" = 1'-0" Date: 4/16/07 Draw: RB Check: BF
 Drawing Number: **SKS 4**

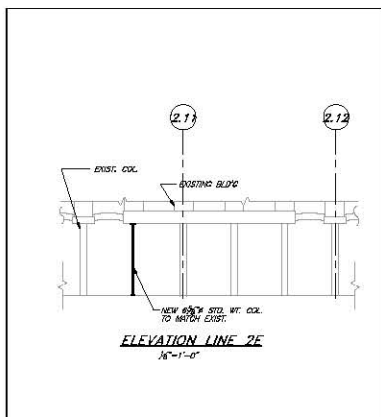




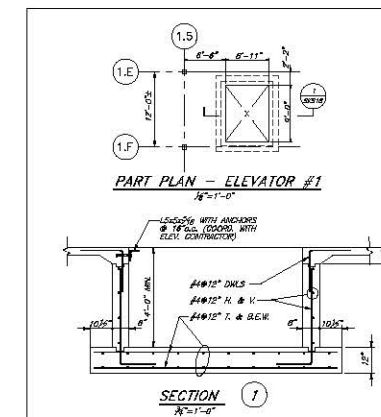
HMPH Architects, Inc.	Worthington Place Cambridge, Massachusetts 2ND FLOOR PART PLAN BUILDING 2 Scale: 1/8" = 1'-0" Date: 11/16/17 Drawn: SKS Checked: SKP	Drawing Number SKS 15
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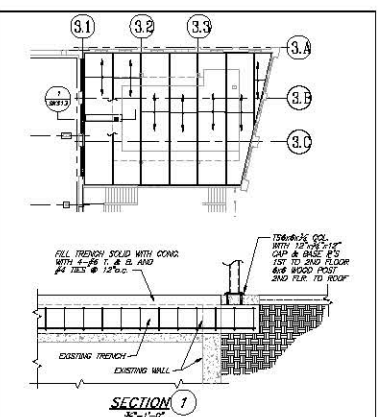
HMPH Architects, Inc.	Worthington Place Cambridge, Massachusetts WALL ELEVATION BUILDING 2 Scale: 1/8" = 1'-0" Date: 11/16/17 Drawn: SKS Checked: SKP	Drawing Number SKS 16
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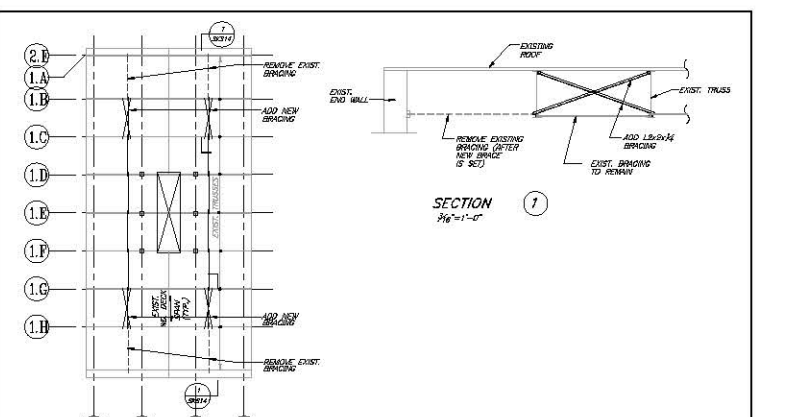
HMPH Architects, Inc.	Worthington Place Cambridge, Massachusetts WALL ELEVATION BUILDING 2 Scale: 1/8" = 1'-0" Date: 11/16/17 Drawn: SKS Checked: SKP	Drawing Number SKS 17
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HMPH Architects, Inc.	Worthington Place Cambridge, Massachusetts ELEVATOR #1 PLAN AND SECTION BUILDING 1 Scale: 1/8" = 1'-0" Date: 11/16/17 Drawn: SKS Checked: SKP	Drawing Number SKS 18
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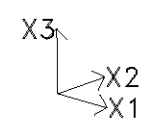


HMPH Architects, Inc.	Worthington Place Cambridge, Massachusetts GRD FLOOR FRAMING PLAN BUILDING 2 Scale: 1/8" = 1'-0" Date: 11/16/17 Drawn: SKS Checked: SKP	Drawing Number SKS 13
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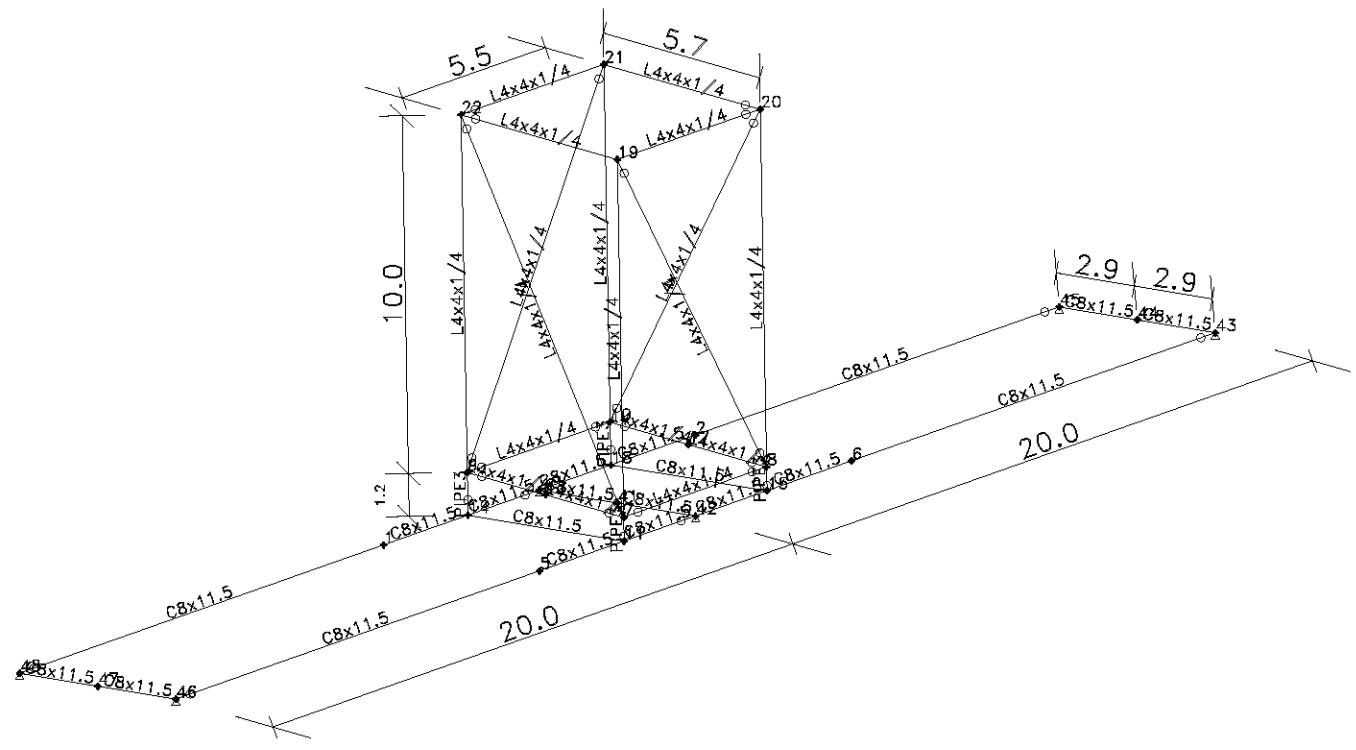
HMPH Architects, Inc.	Worthington Place Cambridge, Massachusetts ROOF - PART PLAN BUILDING 1 Scale: 1/8" = 1'-0" Date: 11/16/17 Drawn: SKS Checked: SKP	Drawing Number SKS 14
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Cambridge Loft Apartments RT Chimneys



SCALE = 1:61

DATE: 4/12/17



Cambridge Loft Apartments RT Chimneys

*Prepared by:**Date:* 4/13/17**Load no. 1: Selfweight (units - kips ft.)**

/ BEAM LOADS
 / BEAM LOADS
 SELF X3 -1. B 68 69 29 5 13 6 30 4 15 24 25 14 16 22 23 17 TO 21 BY 2 20 18
 9 12 10 7
 / END

FORCE SUMMATION

FX1=0. kip
 FX2=0. kip
 FX3=-1.0224 kip

Load no. 2: Screening (units - kips ft.)

/ BEAM LOADS
 DIST GL FX3 -0.015 B 21 20 18 19 13 6 30 4 29 5
 / END

FORCE SUMMATION

FX1=0. kip
 FX2=0. kip
 FX3=-0.6725 kip

Load no. 3: X1 Wind (units - kips ft.)

/ GLOBAL LOADS
 / GLOBAL LOADS
 / GLOBAL LOADS
 / GLOBAL LOADS
 DIST FX1 0.027 PLANE 0. 2.25 11.185 0. 7.75 11.185 0. 7.75 1.198 PT
 0. 9.987 BEAMS
 / END

FORCE SUMMATION

FX1=1.4831 kip
 FX2=0. kip
 FX3=0. kip

Cambridge Loft Apartments RT Chimneys

*Prepared by:**Date:* 4/13/17**Load no. 4: X2 Wind (units - kips ft.)**

/ GLOBAL LOADS
 / GLOBAL LOADS
 / GLOBAL LOADS
 / GLOBAL LOADS
 DIST FX2 0.027 PLANE 0. 2.25 11.185 5.708 2.25 11.185 5.708 2.25

1.198 PT 0. 9.987 BEAMS

/ END

FORCE SUMMATION

FX1=0. kip
 FX2=1.5392 kip
 FX3=0. kip

Load no. 5: -X1 Wind (units - kips ft.)

/ GLOBAL LOADS
 / GLOBAL LOADS
 / GLOBAL LOADS
 / GLOBAL LOADS
 DIST FX1 -0.027 PLANE 5.708 2.25 11.185 5.708 7.75 11.185 5.708

7.75 1.198 PT 0. 9.987 BEAMS

/ END

FORCE SUMMATION

FX1=-1.4831 kip
 FX2=0. kip
 FX3=0. kip

Load no. 6: Snow Load (units - kips ft.)

/ BEAM LOADS
 / BEAM LOADS
 / BEAM LOADS
 / BEAM LOADS
 DIST GL FX3 -0.168 B 1 3 26 28 31 33 52 54 55 57 58 61

/ END

FORCE SUMMATION

FX1=0. kip
 FX2=0. kip
 FX3=-13.44 kip

Cambridge Loft Apartments RT Chimneys

*Prepared by:**Date:* 4/13/17**Load no. 7: Selfweight of Roof Channels (units - kips ft.)**

```
/ BEAM LOADS
/ BEAM LOADS
/ BEAM LOADS
SELF X3 -1. B 57 1 26 52 33 58 55 3 28 54 31 61
/ END
```

FORCE SUMMATION

```
FX1=0. kip
FX2=0. kip
FX3=-0.9198 kip
```

Load no. 8: Selfweight of Gypsum/Conc Deck (units - kips ft.)

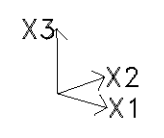
```
/ BEAM LOADS
DIST GL FX3 -0.11 B 57 1 26 52 33 58 55 3 28 54 31 61
/ END STATIC
```

FORCE SUMMATION

```
FX1=0. kip
FX2=0. kip
FX3=-8.8 kip
```

Cambridge Loft Apartments RT Chimneys

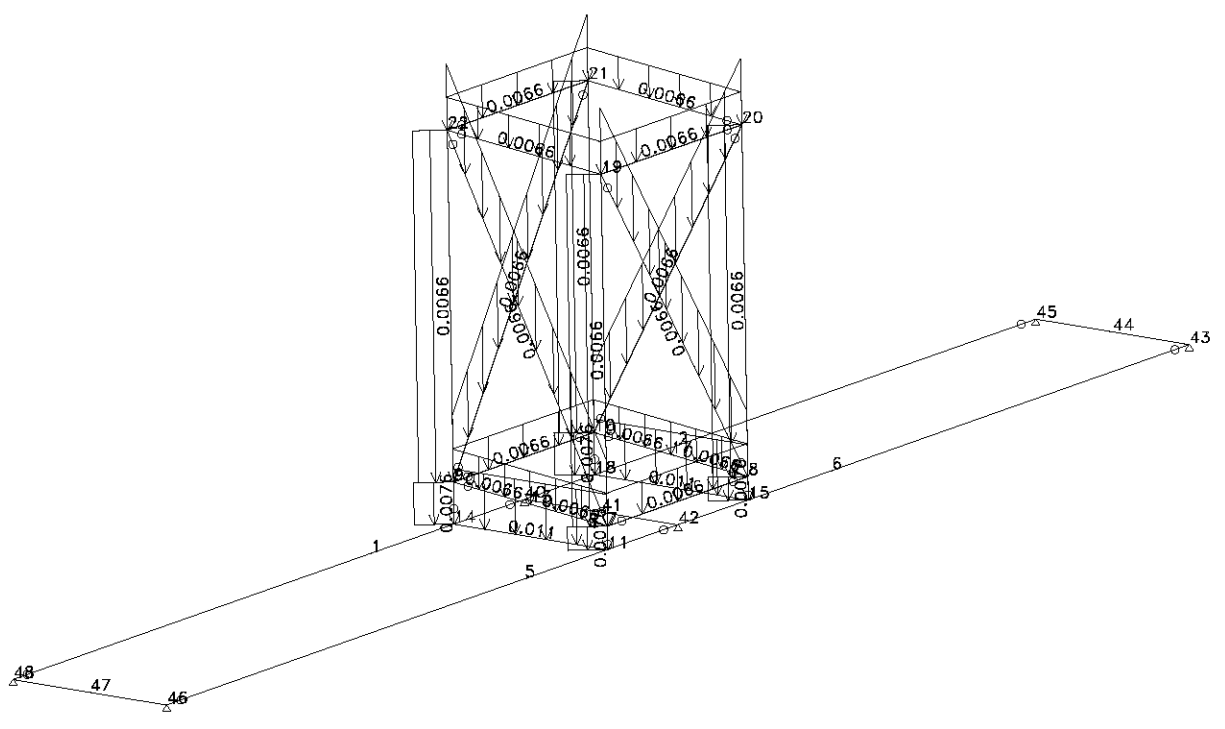
Load 1: Selfweight



SCALE = 1:62

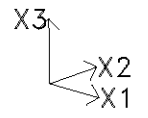
UNITS: kip ft

DATE: 4/13/17



Cambridge Loft Apartments RT Chimneys

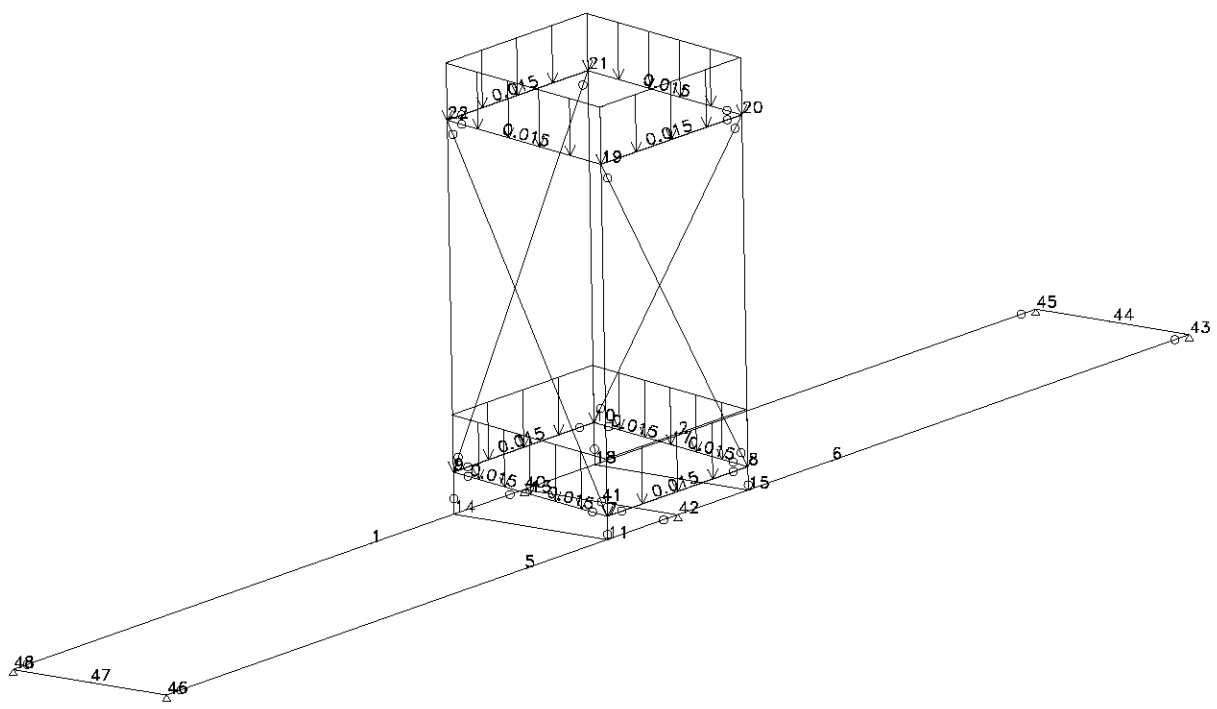
Load 2: Screening



SCALE = 1:62

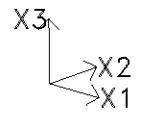
UNITS: kip ft

DATE: 4/13/17



Cambridge Loft Apartments RT Chimneys

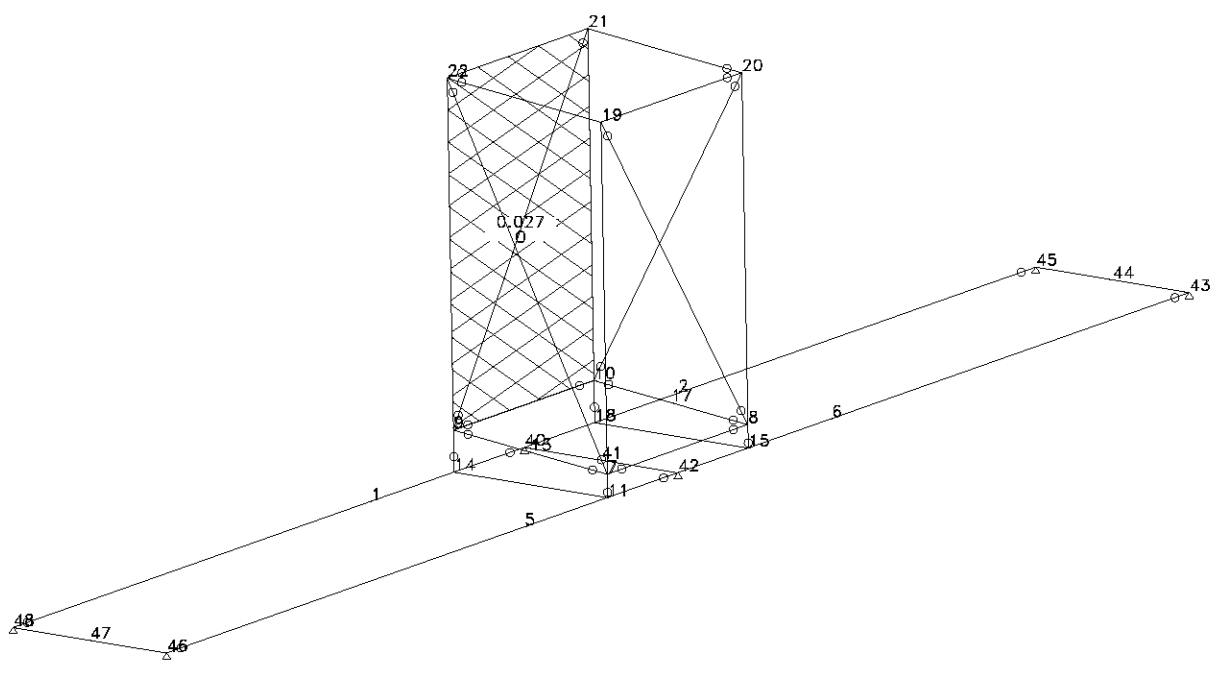
Load 3: X1 Wind



SCALE = 1:62

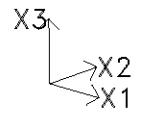
UNITS: kip ft

DATE: 4/13/17



Cambridge Loft Apartments RT Chimneys

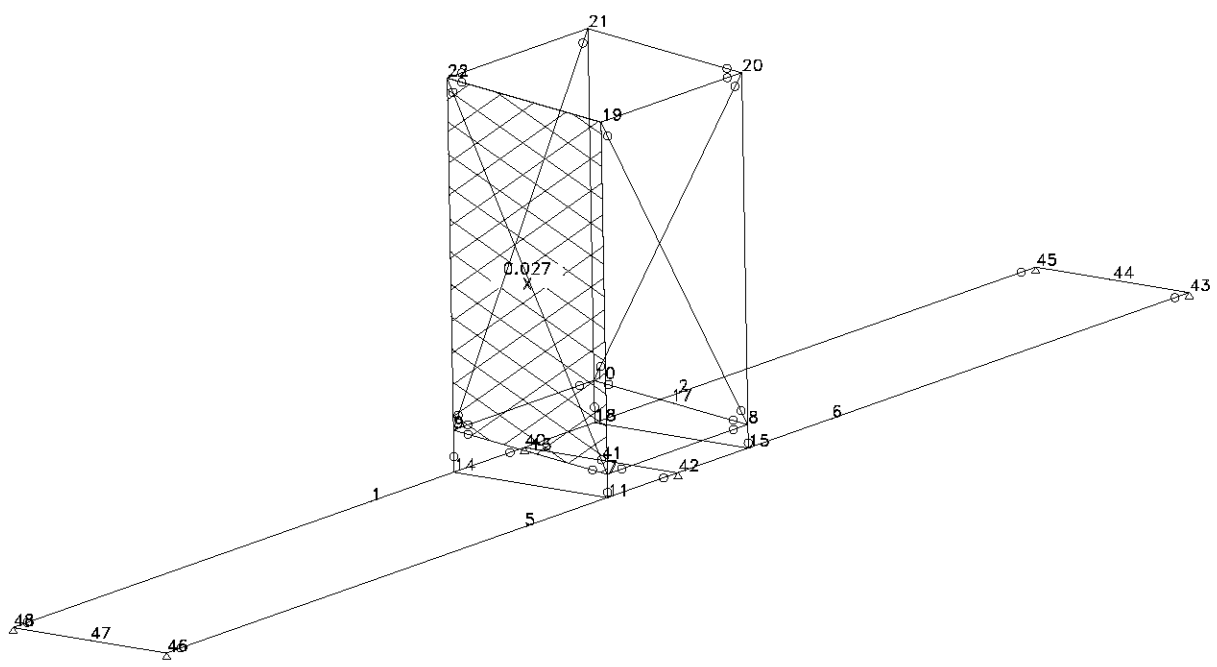
Load 4: X2 Wind



SCALE = 1:62

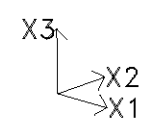
UNITS: kip ft

DATE: 4/13/17



Cambridge Loft Apartments RT Chimneys

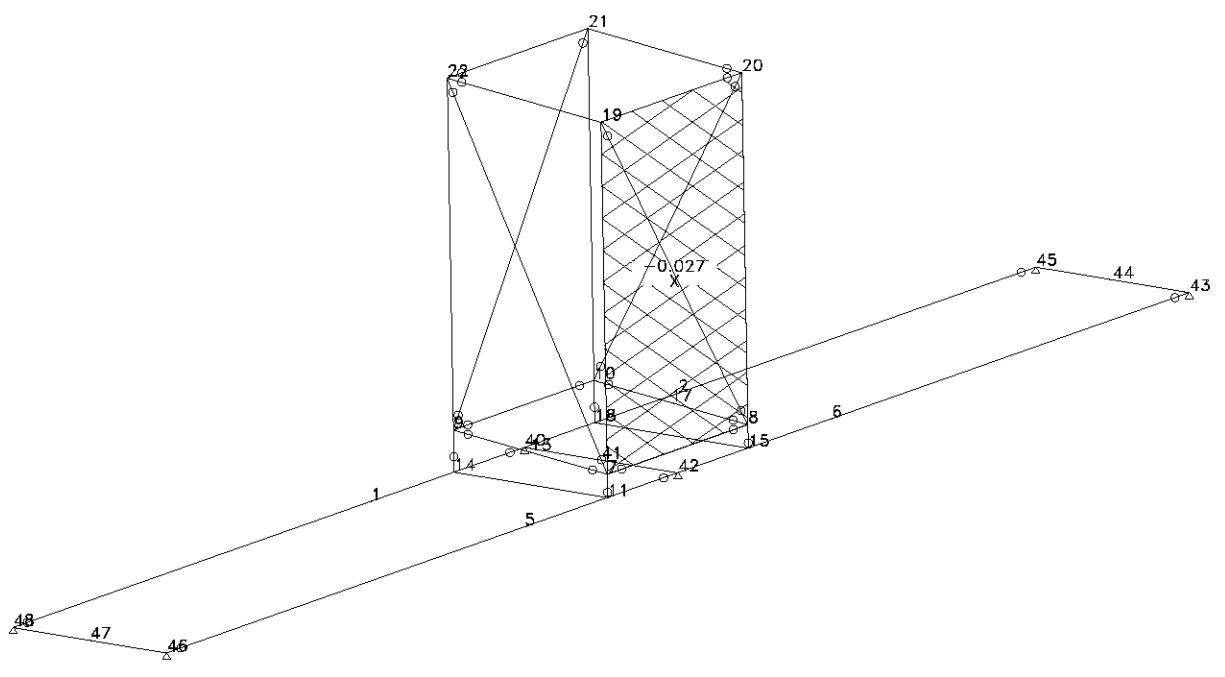
Load 5: -X1 Wind



SCALE = 1:62

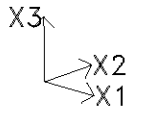
UNITS: kip ft

DATE: 4/13/17



Cambridge Loft Apartments RT Chimneys

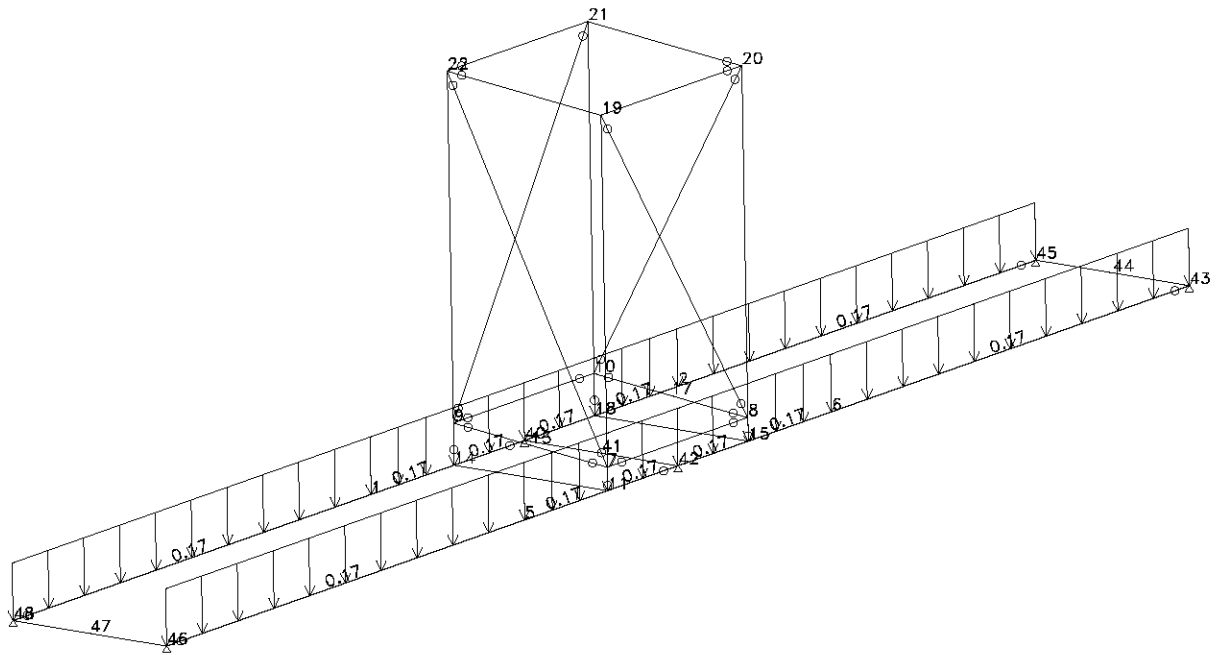
Load 6: Snow Load



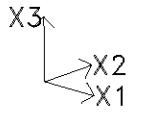
SCALE = 1:62

UNITS: kip ft

DATE: 4/13/17



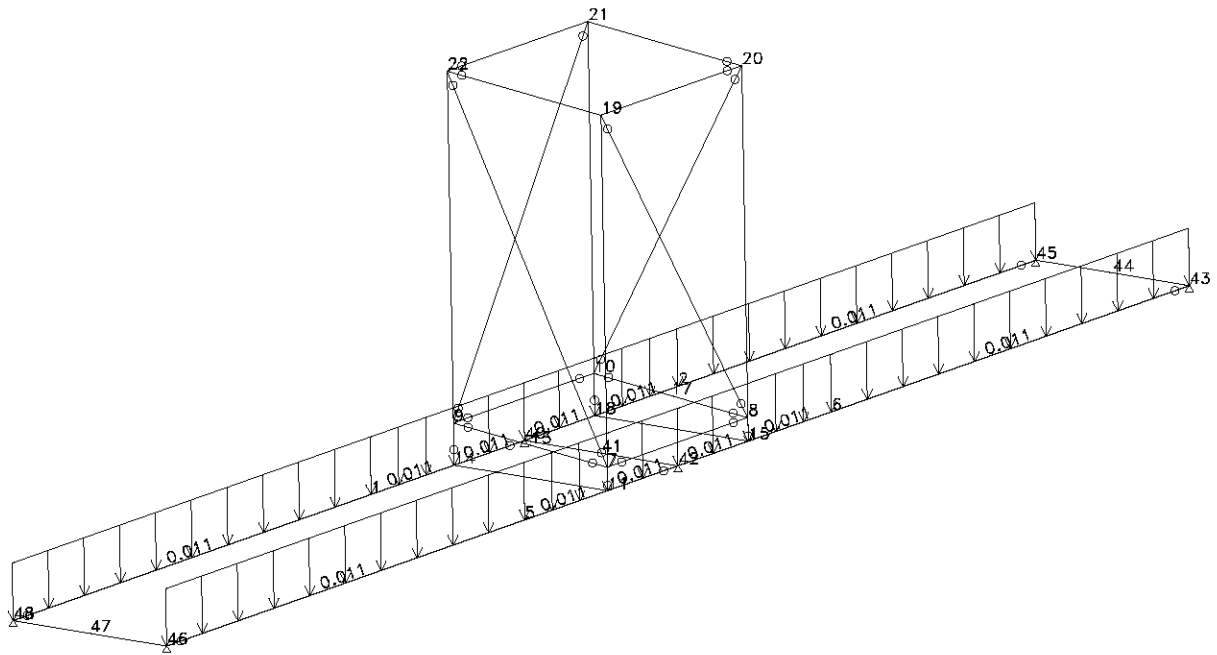
Load 7: Selfweight of Roof Channels



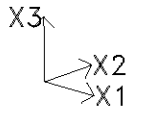
SCALE = 1:62

UNITS: kip ft

DATE: 4/13/17



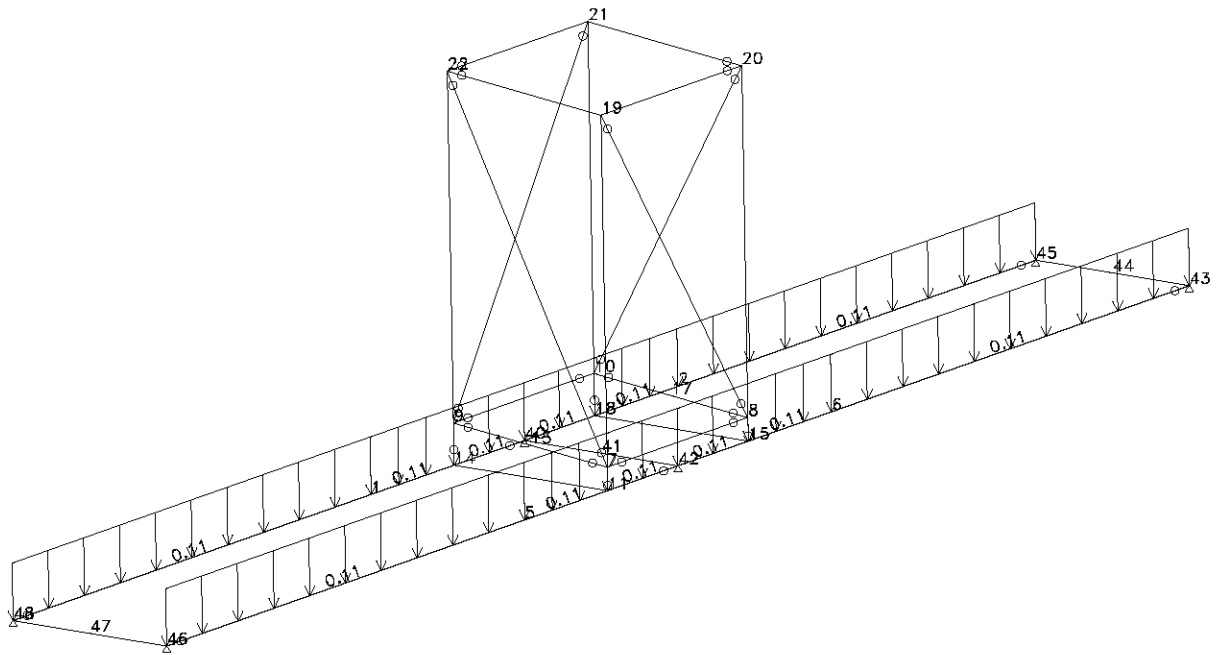
Load 8: Selfweight of Gypsum/Conc Deck



SCALE = 1:62

UNITS: kip ft

DATE: 4/13/17



Cambridge Loft Apartments RT Chimneys

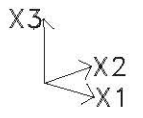
Prepared by:

Date: 4/13/17

COMBINATIONS TABLE

Comb.						
D+WX1	1	1 * 1.00	+ 2 * 1.00	+ 3 * 1.00	+ 7 * 1.00	+ 8 * 1.00
D+WX2	2	1 * 1.00	+ 2 * 1.00	+ 4 * 1.00	+ 7 * 1.00	+ 8 * 1.00
D+W-X1	3	1 * 1.00	+ 2 * 1.00	+ 5 * 1.00	+ 7 * 1.00	+ 8 * 1.00
D+.75WX1+.75S	4	1 * 1.00	+ 2 * 1.00	+ 3 * 0.75	+ 6 * 0.75	+ 7 * 1.00 + 8 * 1.00
D+.75WX2+.75S	5	1 * 1.00	+ 2 * 1.00	+ 4 * 0.75	+ 6 * 0.75	+ 7 * 1.00 + 8 * 1.00
D+.75W-X1+.75S	6	1 * 1.00	+ 2 * 1.00	+ 5 * 0.75	+ 6 * 0.75	+ 7 * 1.00 + 8 * 1.00
D+S	7	1 * 1.00	+ 2 * 1.00	+ 6 * 1.00	+ 7 * 1.00	+ 8 * 1.00
Existing D+S	8	6 * 1.00	+ 7 * 1.00	+ 8 * 1.00		

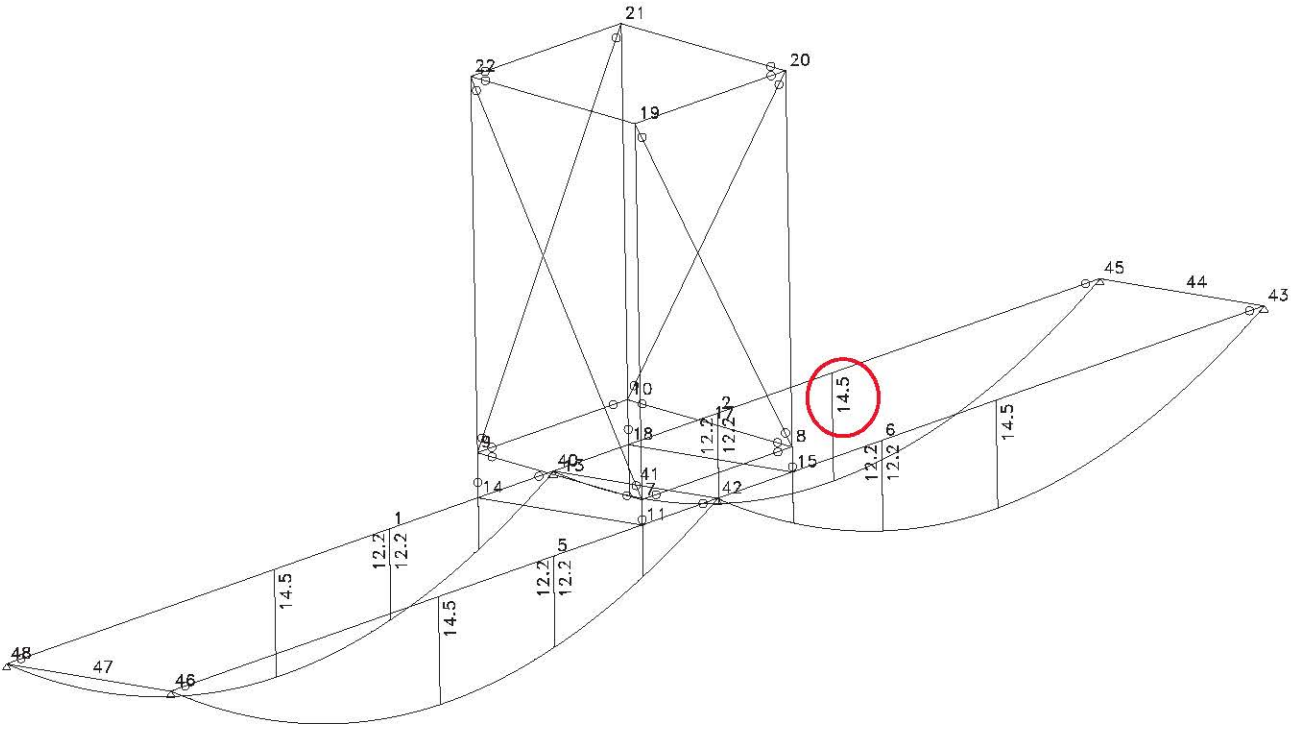
Cambridge Loft Apartments RT Chimneys



SCALE = 1:58

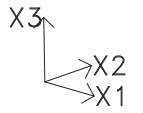
UNITS: kip*ft

DATE: 4/13/17



M2 MOMENT COMB. NO. 8 Existing D+S

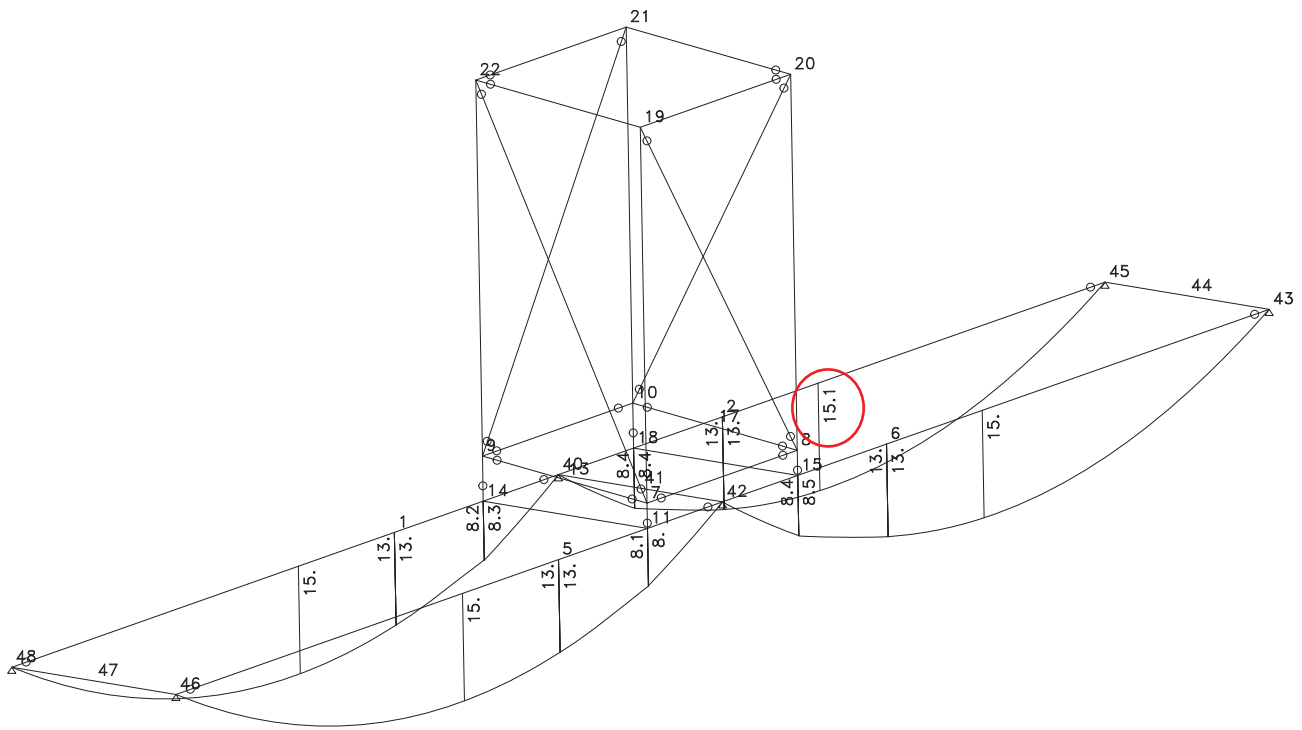
Cambridge Loft Apartments RT Chimneys



SCALE = 1:58

UNITS: kip*ft

DATE: 4/13/17



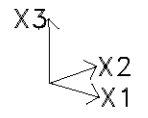
M2 MOMENT

COMBINATIONS ENVELOPE

Proposed M2 Max Moment = 15.1 ft-k
Existing M2 Max Moment = 14.5ft-k

% Increase in Moment = $((15.1-14.5) / 14.5) \times 100 = 4.1\%$, OK

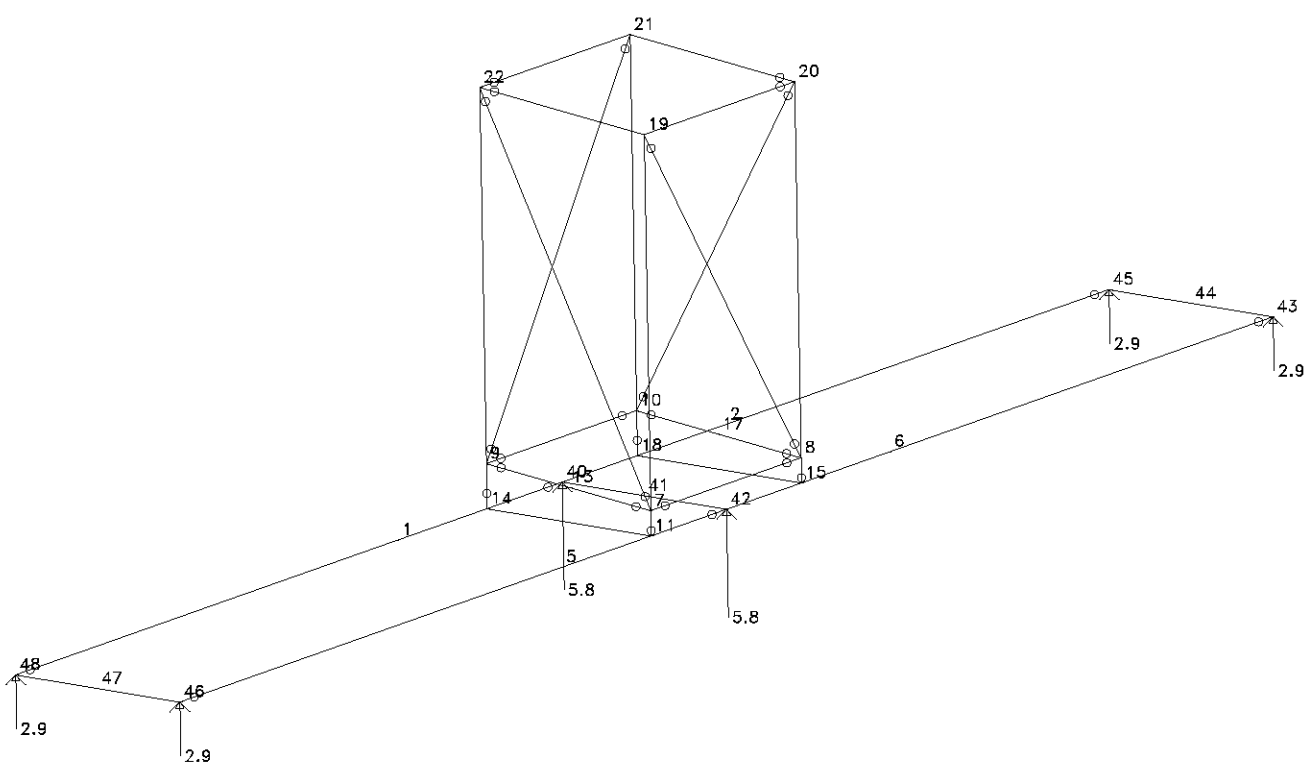
Cambridge Loft Apartments RT Chimneys



SCALE = 1:58

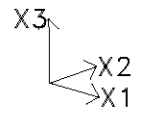
UNITS: kip

DATE: 4/13/17



X3 REACTIONS COMB. NO. 8 Existing D+S

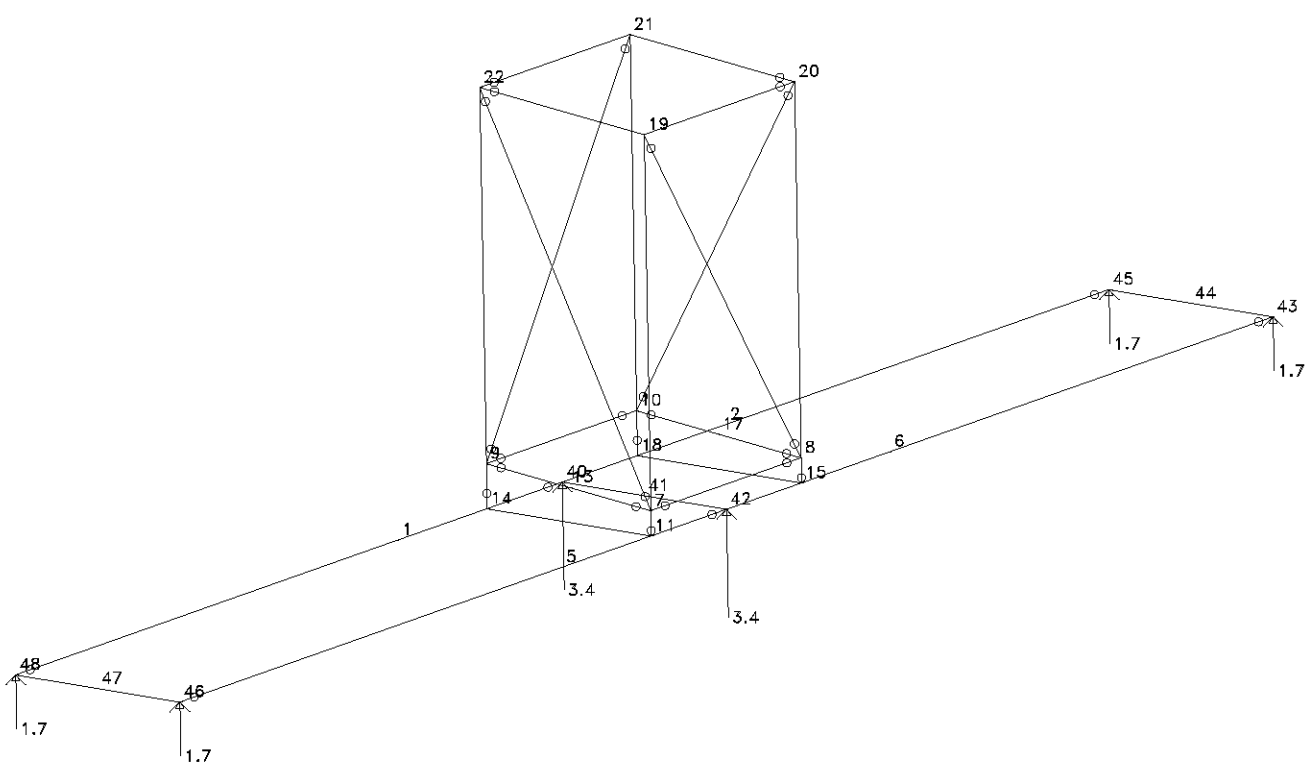
Cambridge Loft Apartments RT Chimneys



SCALE = 1:58

UNITS: kip

DATE: 4/13/17



X3 REACTIONS

LOADS ENVELOPE 1-8

7

Radio Frequency – Electromagnetic Energy (RF-EME) Compliance Report (NSB)





T-Mobile Proposed Facility

Site ID: 4BN1162B

Lofts at Kendall Square
265 Third Street, Cambridge, Massachusetts 02142

May 31, 2017

EBI Project Number:
6217002207

Recommended Signage	
Sign Count	Sign Type
1	
1	
3	
3	

Remarks: See signage plan for mitigation measures to be installed upon upgrade/installation of the site to comply with FCC and T-Mobile standards.

Prepared by:



INTRODUCTION

EBI Consulting was directed to analyze the proposed T-Mobile rooftop facility (4BN1162B) located at 265 Third Street in Cambridge, Massachusetts for the purpose of determining whether the emissions from the proposed T-Mobile Antenna Installation located on this property are within specified federal limits. This report contains a detailed summary of the RF EME analysis for the site.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The number of $\mu\text{W}/\text{cm}^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limit for the 700 and 800 MHz Bands is 467 $\mu\text{W}/\text{cm}^2$ and 567 $\mu\text{W}/\text{cm}^2$ respectively, and the general population exposure limit for the PCS and AWS bands is 1000 $\mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

MPE CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna rooftop facility located at 265 Third Street in Cambridge, Massachusetts using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Because of the short wavelength of PCS services, the antennas require line-of-site paths for good propagation, and are typically installed a distance above ground level. Antennas are constructed to concentrate energy towards the horizon, with as little energy as possible scattered towards the ground or the sky. This design, combined with the low power of PCS facilities, generally results in no possibility for exposure to approach Maximum Permissible Exposure (MPE) levels, with the exception of in areas in the immediate vicinity of the antennas.

For all calculations, equipment was calculated using the following assumptions:

- 1) 4 UMTS channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. The transmit power for these channels is 30 watts per channel.
- 2) 2 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. The transmit power for these channels is 60 watts per channel.
- 3) 2 LTE channels (PCS Band – 1900 MHz) were considered for each sector of the proposed installation. The transmit power for these channels is 60 watts per channel.
- 4) 1 LTE channel (700 MHz Band) was considered for each sector of the proposed installation. The transmit power for this channel is 30 watts.
- 5) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration.
- 6) EBI has performed theoretical worst case modeling using Roofview® to estimate the maximum potential power density from each antenna based on worst-case assumptions for the number of antennas and power.
- 7) The data for all T-Mobile antennas used in this analysis is shown below in Table I. Actual antenna gains for each antenna were used per manufacturer's specifications.
- 8) There are no additional carriers located on this facility.
- 9) Emissions values for additional carriers were taken from the data provided by T-Mobile in the supplied drawings. For each additional carrier, known configuration values were utilized to approximate each systems contribution.

All calculations were done with respect to uncontrolled / general public threshold limits.

Antenna Inventory

Antenna Number	Sector	Antenna Make	Antenna Model	Height (ft) Above Nearest Walking Surface	Frequency Band	Technology	Power Per Channel	ERP (w)	Azimuth	Number of Channels
1	A	Ericsson	AIR32 B66Aa/B2a	4.6	AWS - 2100 MHz	LTE	60	4615	50	2
1	A	Ericsson	AIR32 B66Aa/B2a	4.6	PCS - 1900 MHz	LTE	60	4113	50	2
2	A	Commscope	LNX-6515DS-AIM	2.9	700 MHz	LTE	30	716	50	1
3	A	CMA	BDHH/6521/E0-6	3.5	AWS - 2100 MHz	UMTS	30	8132	50	4
1	B	Ericsson	AIR32 B66Aa/B2a	4.6	AWS - 2100 MHz	LTE	60	4615	110	2
1	B	Ericsson	AIR32 B66Aa/B2a	4.6	PCS - 1900 MHz	LTE	60	4113	110	2
2	B	Commscope	LNX-6515DS-AIM	2.9	700 MHz	LTE	30	716	110	1
3	B	CMA	BDHH/6521/E0-6	3.5	AWS - 2100 MHz	UMTS	30	8132	110	4
1	C	Ericsson	AIR32 B66Aa/B2a	4.6	AWS - 2100 MHz	LTE	60	4615	235	2
1	C	Ericsson	AIR32 B66Aa/B2a	4.6	PCS - 1900 MHz	LTE	60	4113	235	2
2	C	Commscope	LNX-6515DS-AIM	2.9	700 MHz	LTE	30	716	235	1
3	C	CMA	BDHH/6521/E0-6	3.5	AWS - 2100 MHz	UMTS	30	8132	235	4

Table 1: T-Mobile Site Inventory and Power Value

Additional Carriers Located on Site	
Carrier	MPE %
No additional carriers are located onsite.	

Table 2: Additional Carrier Inventory and Emissions Levels

Summary and Conclusions

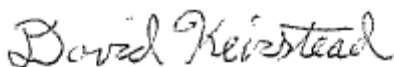
All calculations performed for this analysis yielded results that were above the allowable limits for exposure to RF Emissions. Based on predictive modeling, the worst-case emitted power density may exceed the FCC's general public limit within approximately 15 feet of T-Mobile's proposed antennas at the main roof level. Modeling also indicates that the worst-case emitted power density may exceed the FCC's occupational limit within approximately 4 feet of T-Mobile's proposed antennas at the main roof level. Installation of mitigation measures will bring the proposed site into compliance.

The anticipated maximum contribution from each sector of the proposed T-Mobile facility is 1179.9% of the allowable FCC established general public limit (235.98% of the FCC occupational limit). This was determined through calculations along a radial from each sector taking full power values into account as well as actual vertical plane antenna gain values per the manufacturers supplied specifications for gain.

The anticipated maximum composite MPE value for this site is 1179.9% of the allowable FCC established general public limit (235.98% of the FCC occupational limit). This is based upon worst case modeling performed on the rooftop taking emissions contributions from all carriers present into account. This value will determine whether the proposed site will be in compliance with regards to electromagnetic emissions.

A site is considered out of compliance with FCC regulations if there are areas that exceed the FCC exposure limits and there are no RF hazard mitigation measures in place. Any carrier which has an installation that contributes more than 5% of the applicable MPE must participate in mitigating these RF hazards. For this facility, the composite values calculated were above the allowable 100% threshold standard per the federal government.

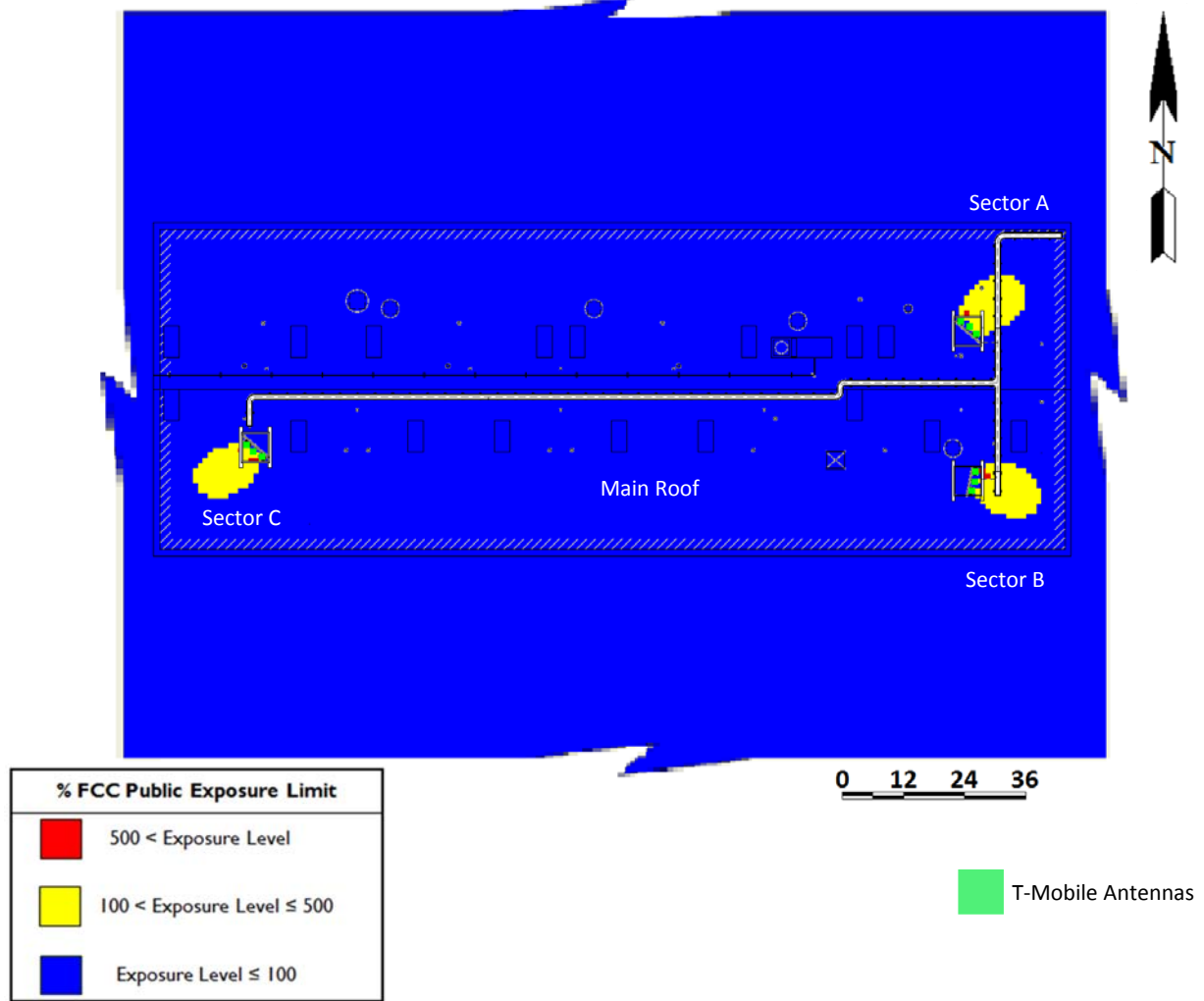
EBI's modeling indicates that there are areas in front of the T-Mobile antennas at the rooftop level that exceed the FCC standards for general public and occupational exposure. In order to alert any workers potentially accessing the site, a blue Notice sign and a yellow Guidelines sign are recommended at the first points of access to the rooftop. Additionally, yellow Caution signs are recommended 15 feet in front of the T-Mobile antennas at Sector A and C, and 14 feet in front of the T-Mobile antennas at Sector B to alert workers they are entering areas that exceed the FCC's general population and/or occupational MPE levels. Red Warning signs are recommended 3 feet in front of the T-Mobile antennas at Sector A and C, and 4 feet in front of the T-Mobile antennas at Sector B to alert workers they are entering areas that exceed the FCC's occupational MPE levels. Recommended signs are depicted on the Signage Plan – Attachment 2.



Dave Keirstead
RF-EME TECHNICIAN

EBI Consulting
21 B Street
Burlington, MA 01803





Attachment I: Walking/Working Surface Emissions Thresholds



PLAN VIEW

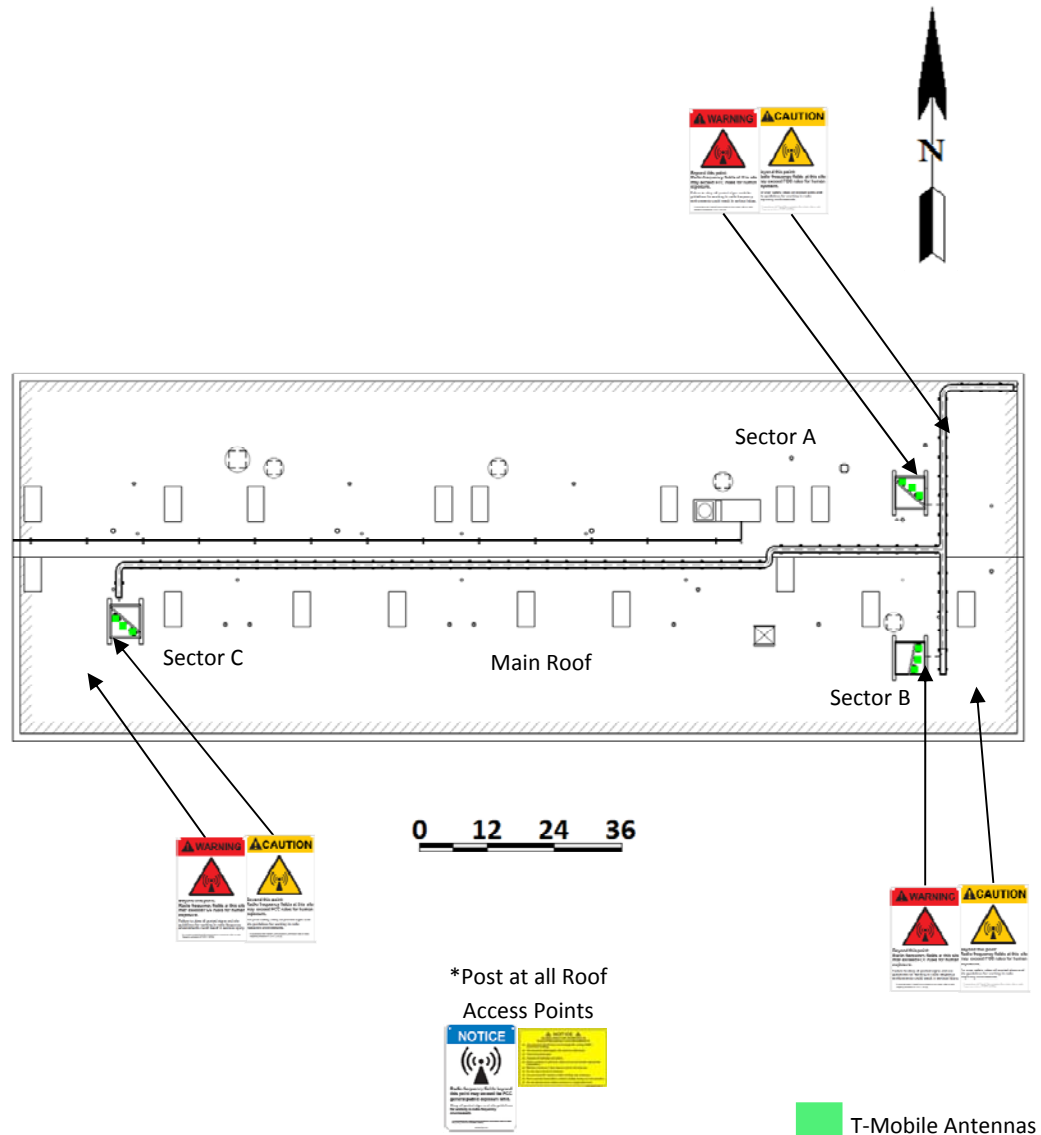
Sector A	There is an area that extends 15 feet from the antenna face that exceeds the FCC's allowable limit for general public exposure on the walking/working surface. There is an area that extends 3 feet from the antenna face that exceeds the FCC's allowable limit for occupational exposure on the walking/working surface.
Sector B	There is an area that extends 14 feet from the antenna face that exceeds the FCC's allowable limit for general public exposure on the walking/working surface. There is an area that extends 4 feet from the antenna face that exceeds the FCC's allowable limit for occupational exposure on the walking/working surface.
Sector C	There is an area that extends 15 feet from the antenna face that exceeds the FCC's allowable limit for general public exposure on the walking/working surface. There is an area that extends 3 feet from the antenna face that exceeds the FCC's allowable limit for occupational exposure on the walking/working surface.
Other Carriers	There are no other carrier antennas included in the modeling.





Attachment 2: Plan View – Signage Locations

Recommended Signage for Compliance	
Sign Count	Sign Type
1	
1	
3	
3	

Notes:
The proposed site will be compliant with the installation of the mitigation measures.

*Actual number of access points may vary if no site survey was conducted. Signage locations are based on T-Mobile's guidance. Actual installation is dependent on accessibility of the roof/antennas. Locations deemed inaccessible due to OSHA safety standards (proximity to unprotected roof edge or slope) will be compliant upon installation of signage at closest accessible point.



Sign	Description	Posting Instructions
	<p>Blue Notice Sign Used to notify individuals they are entering an area where the power density emitted from transmitting antennas may exceed the FCC's MPE limit for the general public.</p>	<p>Securely post at the first point(s) of access to the site (at all roof access points) in a manner conspicuous to all individuals entering thereon.</p>
	<p>Guidelines Informational sign used to notify workers that there are active antennas installed and provide guidelines for working in RF environments.</p>	<p>Securely post adjacent to the Blue Notice sign(s) at the first point(s) of access to the site (at all roof access points) in a manner conspicuous to all individuals entering thereon.</p>
	<p>Yellow Caution Sign Used to notify individuals that they are entering an area where the power density emitted from transmit antennas may exceed the FCC's MPE limit for the general public or occupational exposures.</p>	<p>Securely post near areas where the general public or occupational MPE limit could be exceeded (15 feet in front of T-Mobile Sectors A and C, and 14 feet in front of the T-Mobile Sector B) in a manner conspicuous to all individuals entering thereon.</p>
	<p>Red Warning Sign Used to notify individuals that they are entering an area where the power density emitted from transmit antennas exceeds the FCC's MPE limit for general public and occupational exposures.</p>	<p>Securely post near areas where the general public or occupational MPE limit could be exceeded (3 feet in front of T-Mobile Sectors A and C, and 4 feet in front of the T-Mobile Sector B) in a manner conspicuous to all individuals entering thereon.</p>

8

Federal Communications Commission
Wireless Telecommunications Bureau

Radio Station Authorization (Reference Copy Only)

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.

Licensee: T-Mobile License LLC

ATTN Dan Menser
T-Mobile License LLC
12920 SE 38th St.
Bellevue, WA 98006

FCC Registration Number (FRN): 0001565449	
Call Sign: KNLF954	File Number: 0002991471
Radio Service: CW - PCS Broadband	

Grant Date 06/05/2007	Effective Date 06/05/2007	Expiration Date 06/27/2017	Print Date 09/06/2007
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Market Number: BTA051	Channel Block: D	Sub-Market Designator: 0
Market Name: Boston, MA		

1st Build-out Date 06/27/2002	2nd Build-out Date	3rd Build-out Date	4th Build-out Date
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Special Conditions or Waivers/Conditions This authorization is subject to the condition that the remaining balance of the winning bid amount will be paid in accordance with Part 1 of the Commission's rules, 47 C.F.R. Part 1.

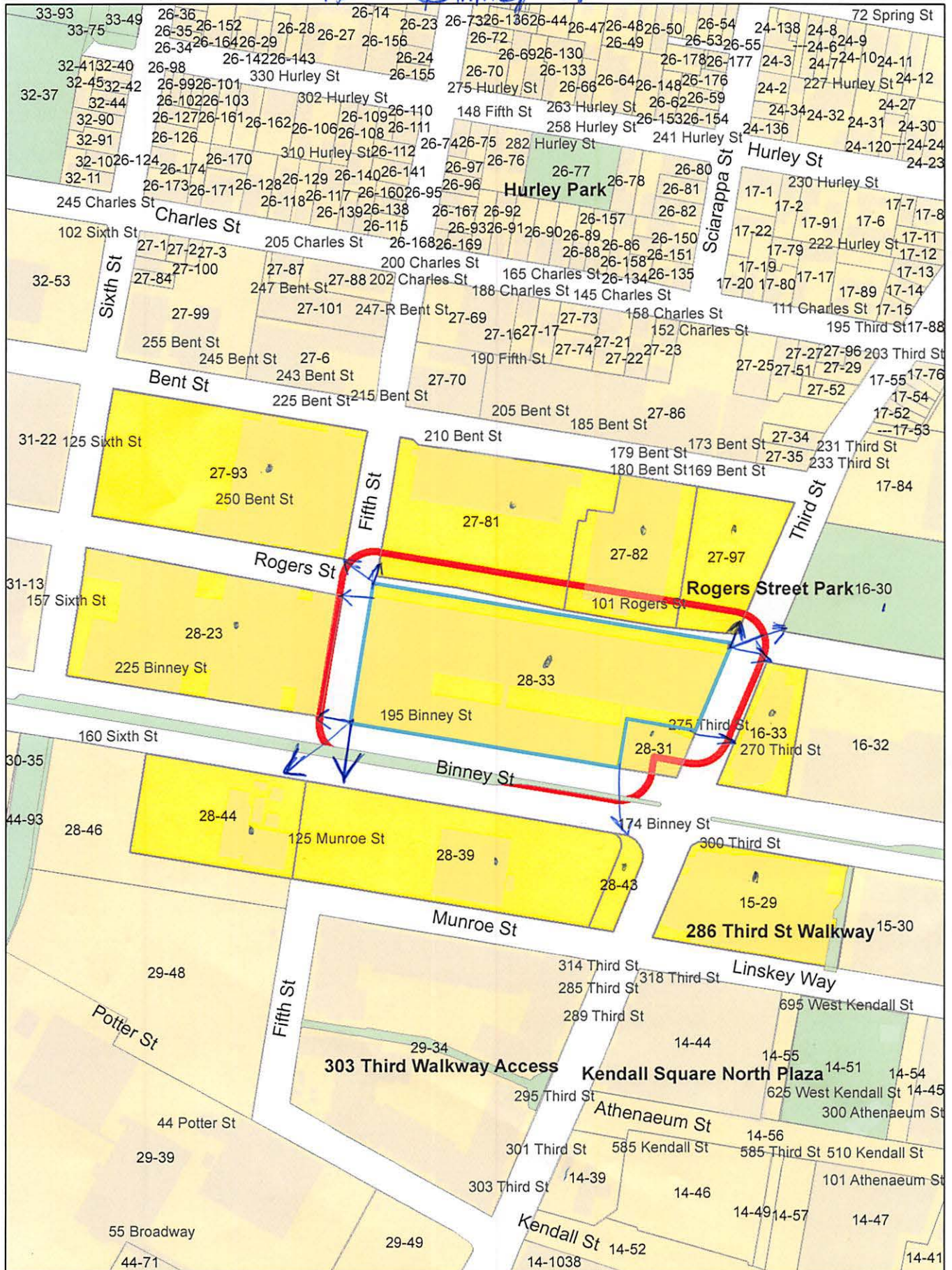
This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada 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.

Conditions
Pursuant to Section 309(h) of the Communications Act of 1934, as amended, 47 U.S.C. Section 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. Section 310(d). This license is subject in terms to the right of use or control conferred by Section 706 of the Communications Act of 1934, as amended. See 47 U.S.C. Section 606.

To view the geographic areas associated with the license, go to the Universal Licensing System (ULS) homepage at <http://wireless.fcc.gov/uls/> and select "License Search". Follow the instruction on how to search for license information

FCC 601 - MB

195 Binney St



195 Binney Rd.

15-29
MIT 300 THIRD LLC
C/O ARE MA REGION #28,LLC
P.O. BOX 847
CARLSBAD, CA 92018

16-30 /27-82
CITY OF CAMBRIDGE
C/O LOUIS DEPASQUALE
CITY MANAGER

PRINCE LOBEL TYE LLP
C/O RICARDO M. SOUSA, ESQ.
1 INTERNATIONAL PLACE, SUITE 3700
BOSTON, MA 02110

27-81
NEW ENGLAND TELEPHONE AND
TELEGRAPH COMPANY
C/O DUFF AND PHELPS
P.O BOX 2749
ADDISON, TX 75001

16-30/27-82
CITY OF CAMBRIDGE
C/O NANCY GLOWA
CITY SOLICITOR

27-93
AT&T CORP.
PROPERTY TAX UNIT
P.O. BOX 7207
BEDMINSTER, NJ 07921

28-23
ARE-MA REGION NO.34, LLC
C/O THOMSON REUTERS PTS
P.O. BOX 847
CARLSBAD, CA 92018

28-31
DIGITAL SPACE LAB, LLC. &
CITY OF CAMBRIDGE TAX TITLE
7 CAPTAIN PARKER ARMS#15
LEXINGTON, MA 02421

28-33
ASN WORTHINGTON PLACE LLC,
C/O EQR- R.E. TAX DEPARTMENT
P.O. BOX 87407 (29808)
CHICAGO, IL 60680

28-39
UNITED STATES OF AMERICA
575 TECHNOLOGY SQUARE
CAMBRIDGE, MA 02139

28-43
CAMBRIDGE REDEVELOPMENT AUTHORITY
ONE CAMBRIDGE CENTER, 4TH FLOOR
CAMBRIDGE, MA 02142

28-44
UNITED STATES OF AMERICA
575 TECHNOLOGY SQUARE
CAMBRIDGE, MA 02139

16-33
AIMCO 270 THIRD STEET, LLC
C/O PARADIGM TAX FROUP
ATTN: FRANK ARMY
1 TARA BOULEVARD, SUITE 200
NASHUA, NH 03062

27-97
ASN KENDALL SQUARE LLC.
C/O EQR- R.E. TAX DEPARTMENT
TWO NORTH RIVERSIDE PLAZE, SUITE 400
CHICAGO, IL 60606