BZA APPLICATION FORM

GENERAL INFORMATION

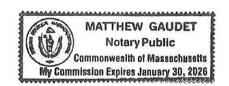
The undersigned hereby petition			2020 DEC -7 PM 12-07
v		d of Zoning Appeal f	or the following: 112: U/
Special Permit:	Variance: _	Appeal	OFFICE OF THE CITY CLERK CAMBRIDGE, MASSACHUSETTS
PETITIONER: Cellco Partnership d/b/a V	erizon Wireless		
PETITIONER'S ADDRESS: 118 Flands	ers Road, Westbo	rough, MA	
LOCATION OF PROPERTY: 1350 Massac			
TYPE OF OCCUPANCY: Private College	/University	ZONING DISTRICT: B	usiness B
REASON FOR PETITION:			
Additions			New Structure
Change in Use/Occ	upancy		Parking
Conversion to Add	i'l Dwelling	Unit's	Sign
Dormer			Subdivision
X Other: Mobile Comm	nunication Facilit	y upgrade	
Upgrade the existing mobile communic		y replacing the existing al	I nanel antennas (12 antennas tota
and adding one additional panel antenna			•
radio heads and adding one additional r			
description of the proposed facility upg	rade, see the att	ached Statement and Site	Plan.
SECTIONS OF ZONING ORDINANCE C			
Article 4 Section 4.32(g)(1			
Article 10 Section 10.40 three	ough 10.46		
Article Section 6409(a) M			
Applicants for a Variance must	complete Pa	nges 1-5	
Applicants for a Special Permi Applicants for an Appeal to	o the BZA	of a Zoning dete	ermination by the
Inspectional Services Departme for the appeal	nt must atta	ach a statement cond	cerning the reasons
Original Sig	mature(s):	Tyllus	
		* Timothy C. Twardowski,	s)/Owner) attorney for Petitioner
		Cellco Partnership 1/b/atV	Wireless Wireless
	Address:	Verizon Wireless, Attn: El 118 Flanders Road	len Dalmus
		Westborough, MA 01581	
	Tel. No.:	(508) 330-3300	
	E-Mail Addr	ess: _ttwardowski@rc.co	om
Date: 12-2-20	_		LP 5th Floor, Boston, MA 02108
		(617) 557-5965	

BZA APPLICATION FORM - OWNERSHIP INFORMATION

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

I/We	Kristen Hurston of Harvard University
	(OWNER)
Address:_	1350 Massachusetts Avenue, Cambridge, MA 02138
State tha	t I/We own the property located at1350 Massachusetts Avenue,
which is	the subject of this zoning application.
The record	d title of this property is in the name of
Р	resident and Fellows of Harvard College
*Pursuant	to a deed of duly recorded in the date12/22/2004, Middlesex Sout
County Red	gistry of Deeds at Book 44353 , Page 481 ; or
Middlesex	Registry District of Land Court, Certificate No
Book	Page
	SIGNATURE BY LAND OWNER OR AUTHORIZED TRUSTEE, OFFICER OR AGENT*
*Written e	evidence of Agent's standing to represent petitioner may be requeste
Commonweal	th of Massachusetts, County of MIDDLE SEX
	-name KRISTEN HUSTON personally appeared before me
this 16A	GAUDET, 2020, and made oath that the above statement is true. Notary
My commiss	sion expires AN 30, 2026 (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

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.

- A) Requirements of the Ordinance can or will be met for the following reasons:
 - As demonstrated by the documents and information provided with this application, and as will be further demonstrated at the hearing on this matter, the upgraded facility meets the requirements of the Zoning Ordinance for the facilities serving mobile communications systems.
- 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:
 - The upgraded facility will not change existing traffic demand or affect ingress or egress. The facility will continue to generate only about one to two vehicle trips per month by a standard passenger vehicle during normal business hours for routine maintenance.
- 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:
 - The upgraded facility will have no adverse effects on the operation or development of adjacent uses. The upgraded facility will emit no light, odor, dust or glare and generates no unusual noise or other adverse impacts.
- 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:
 - The upgraded facility will generate no additional traffic or other negative impacts on surrounding properties or within the City of Cambridge. The facility requires no water or sewer service and emits no light, odor, dust, or glare and generates no unusual noise or other adverse impacts. The facility will be unoccupied, with no employees or customers. The availability of wireless communication enhances the health, safety, and welfare of the community.
- 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:
 - The facility has been designed to minimize its visual impact and is in harmony with the general purpose of the Zoning Ordinance and will comply with its provisions.

(ATTACHMENT B - PAGE 6)

BZA APPLICATION FORM

DIMENSIONAL INFORMATION

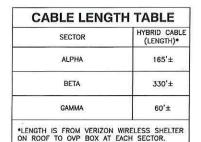
Cellco APPLICANT:	Partnership d/b/a Veri	zon Wireless PRES	ENT USE/OCCUPAN	Private College	/University
1250) Managah wasan Assam			siness-B; Harvard S	
LOCATION: 1330	Massachusetts Avenu	ie	zone: Ha	rvard, Radcliffe, Les	ley Overla
PHONE: (508) 330-	3300	REQUESTED USE/OC	CUPANCY: Mobile	e Communications F	acility
		EXISTING CONDITIONS	REQUESTED CONDITIONS	ORDINANCE REQUIREMENTS	<u>2</u> 1
TOTAL GROSS FLOO	R AREA:	138,422 sf	No change	NA	(max.)
LOT AREA:		74,912 sf		None	(min.)
RATIO OF GROSS F TO LOT AREA:2	LOOR AREA		No change	3.0	_ (max.)
LOT AREA FOR EAC	H DWELLING UNIT:	NA	No change	None	_ (min.)
SIZE OF LOT:	WIDTH			NA NA	_ (min.)
	DEPTH				
Setbacks in	FRONT		No change	None	(min.)
Feet:	REAR		No change	None	(min.)
	LEFT SIDE		No change	None	(min.)
	RIGHT SIDE		No change	None	(min.)
SIZE OF BLDG.:	HEIGHT	121'6" (top of roof)	No change	80'	(max.)
	LENGTH	160' (highest appurter	nance)		
	WIDTH				
RATIO OF USABLE	OPEN SPACE				
TO LOT AREA:3)		NA	NA	NA	(min.)
NO. OF DWELLING	UNITS:	NA	NA	NA	_ (max.)
NO. OF PARKING S	PACES:	NA	NA	NA (mi	.n./max)
NO. OF LOADING A		NA	NA	NA	(min.)
DISTANCE TO NEAR	EST BLDG.	NA	No change	NA	(min.)
Describe where a	pplicable, other nd type of const	occupancies on sa	me lot, the siz, e.g.; wood f	e of adjacent b rame, concrete,	uildings brick,

^{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.

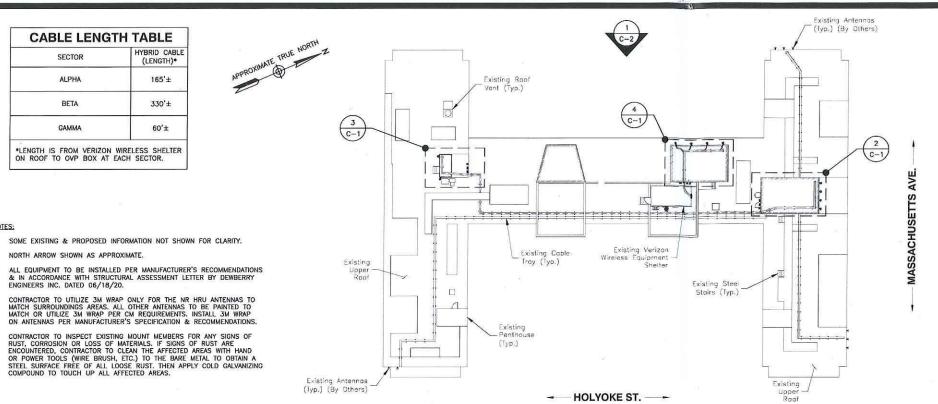
3. OPEN SPACE SHALL NOT INCLUDE PARKING AREAS, WALKWAYS OR DRIVEWAYS AND SHALL HAVE A MINIMUM DIMENSION OF 15'.



NORTH ARROW SHOWN AS APPROXIMATE.

3/16"=1' FOR 22"x34"

ENGINEERS INC. DATED 06/18/20.



SCOPE OF WORK

- REMOVE ALL EXISTING ANTENNAS (12 TOTAL).
- . INSTALL (3) NEW NR HRU & (3) CBRS ANTENNAS (STACKED) MOUNTED ON EXISTING PIPE MOUNTS.
- INSTALL (9) NEW PANEL ANTENNAS MOUNTED ON EXISTING PIPE MOUNTS.
- . RELOCATE (3) 700/850 RRHS FROM SHELTER TO THE PENTHOUSES (1/SECTOR).
- . INSTALL (3) NEW 1900/2100 RRHS MOUNTED ON THE PENTHOUSES (1/SECTOR).
- . INSTALL (3) NEW LARGE JUNCTION BOXES TO THE PENTHOUSES (1/SECTOR).
- . INSTALL (12) NEW 1X1 HYBRID FLEX CABLES & (3) NEW 6X12 HYBRID FLEX CABLES.
- REMOVE (3) 1900 RRHS & (3) 2100 RRHS FROM INSIDE THE SHELTER.
- CAP AND WEATHER PROOF UNUSED ANTENNA PORTS.
- EXISTING PIPE MOUNTS SHALL BE GROUNDED PER VERIZON WIRELESS SPECIFICATIONS.

SCOPE OF WORK BASED ON ANTENNA REC DATED 06/03/2020. VERIFY SCOPE OF WORK WITH FINAL RFDS PRIOR TO CONSTRUCTION.



VERIZON WIRELESS 118 FLANDERS ROAD WESTBOROUGH, MA 01581-3956

HARVARD SQ MA

	ANTMO	DRAWINGS
2	08/18/20	FOR SUBMITTAL
1	06/18/20	FOR SUBMITTAL
0	09/24/19	FOR SUBMITTAL
Α	09/24/19	FOR REVIEW



Dewberry Engineers Inc. 99 SUMMER STREET SUITE 700 BOSTON, MA 02110 PHONE: 617.695.3400 FAX: 617.695.3310



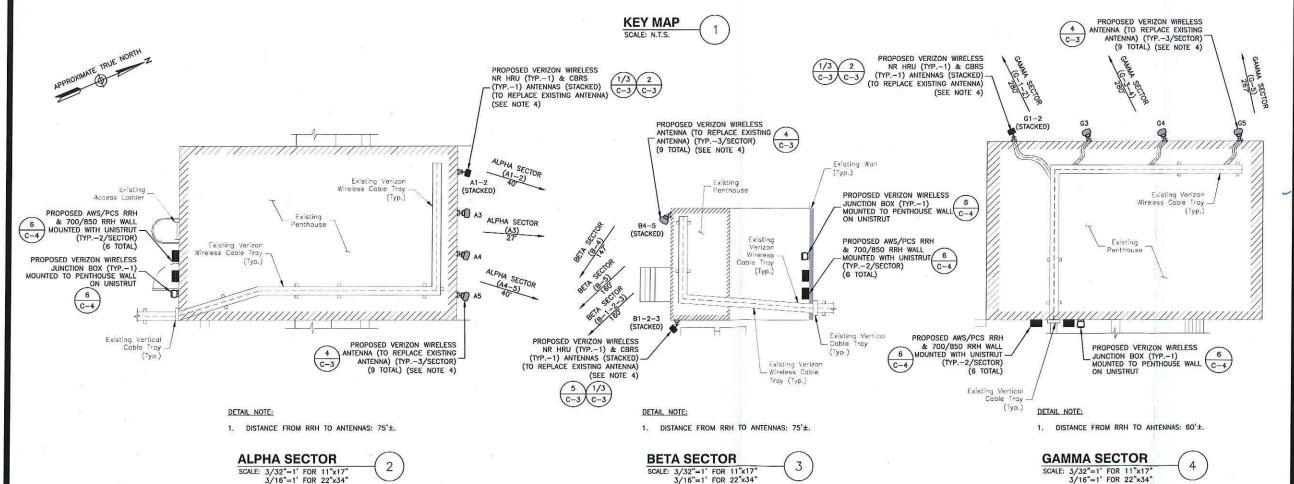
JG
OAS
BBR
50121487
50121759

1350 MASSACHUSETTS AVE CAMBRIDGE, MA 02138

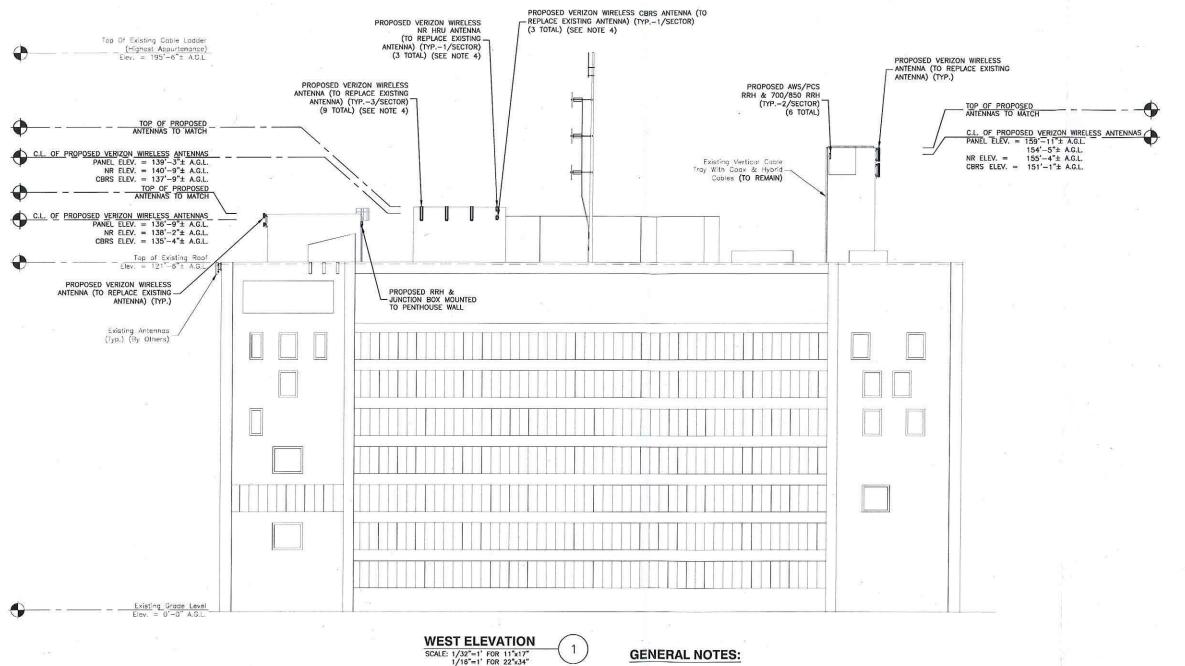
SHEET TITLE

ROOF PLANS

SHEET NUMBER



→ HOLYOKE ST. →



- SOME EXISTING & PROPOSED INFORMATION NOT SHOWN FOR CLARITY.
- 2. NORTH ARROW SHOWN AS APPROXIMATE.
- ALL EQUIPMENT TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS & IN ACCORDANCE WITH STRUCTURAL ASSESSMENT LETTER BY DEWBERRY ENGINEERS INC. DATED
- CONTRACTOR TO UTILIZE 3M WRAP ONLY FOR THE NR HRU ANTENNAS TO MATCH SURROUNDINGS AREAS. ALL OTHER ANTENNAS TO BE PAINTED TO MATCH OR UTILIZE 3M WRAP PER CM REQUIREMENTS. INSTALL 3M WRAP ON ANTENNAS PER MANUFACTURER'S SPECIFICATION & RECOMMENDATIONS.
- CONTRACTOR TO INSPECT EXISTING MOUNT MEMBERS FOR ANY CONTRACTOR TO INSPECT EXISTING MOUNT MEMBERS FOR ANY SIGNS OF RUST, CORROSION OR LOSS OF MATERIALS. IF SIGNS OF RUST ARE ENCOUNTERED, CONTRACTOR TO CLEAN THE AFFECTED AREAS WITH HAND OR POWER TOOLS (WIRE BRUSH, ETC.) TO THE BARE METAL TO OBTAIN A STEEL SURFACE FREE OF ALL LOOSE RUST. THEN APPLY COLD GALVANIZING COMPOUND TO TOUCH UP ALL AFFECTED AREAS.
- A.G.L. = ABOVE GROUND LEVEL-C.L. = CENTERLINE

- ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR PRIOR TO ALL FABRICATION WITH ALL DISCREPANCIES REPORTED IMMEDIATELY TO THE ENGINEER.
- 2. DO NOT CHANGE SIZE NOR SPACING OF STRUCTURAL ELEMENTS.
- DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
- THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH IS THE SOLE RESPONSIBILITY OF THE
- BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
- DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
- INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL RECOURSE WRITTEN APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING.
- 8. EACH CONTRACTOR SHALL COOPERATE WITH THE OWNER'S REPRESENTATIVE AND COORDINATE THEIR WORK WITH THE WORK OF OTHERS.

- REPAIR ANY DAMAGE DURING CONSTRUCTION TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE CONSTRUCTION MANAGER.
- 10. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT
- 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.
- 12. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED D FIRE CODE APPROVED MATERIALS.
- 13. TURN OVER ALL SALVAGEABLE BUILDING MATERIAL TO BUILDING
- ALL DISRUPTIVE WORK AND WORK WITHIN TENANT SPACES TO BE COORDINATED WITH BUILDING REPRESENTATIVE.
- ALL ROOF PENETRATIONS SHALL BE RESTORED TO MAINTAIN ALL ROOF WARRANTIES AND ENSURE A PERMANENT WATERPROOF SEAL.
- 16. CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 48 HOURS IN ADVANCE PRIOR TO CONSTRUCTION START, MORE SPECIFICALLY BEFORE; SEALING ANY FLOOR, WALL OR ROOF PENETRATION, FINAL UTILITY CONNECTIONS, POURING CONCRETE, BACKFILLING UTILITY TRENCHES AND STRUCTURAL POSTS OR MOUNTING CONNECTIONS, FOR ENGINEERING REVIEW AND INSPECTION.



VERIZON WIRELESS 118 FLANDERS ROAD WESTBOROUGH, MA 01581-3956

HARVARD_SQ_MA

	ANTMO	DRAWINGS
		žį.
2	08/18/20	FOR SUBMITTAL
1	06/18/20	FOR SUBMITTAL
0	09/24/19	FOR SUBMITTAL
A	09/24/19	FOR REVIEW



Dewberry Engineers Inc. 99 SUMMER STREET SUITE 700 BOSTON, MA 02110 PHONE: 617.695.3400 FAX: 617.695.3310



DRAWN BY:	JG
REVIEWED BY:	OAS
CHECKED BY:	BBR
PROJECT NUMBER:	50121487
JOB NUMBER:	50121759
SITE ADDRESS:	

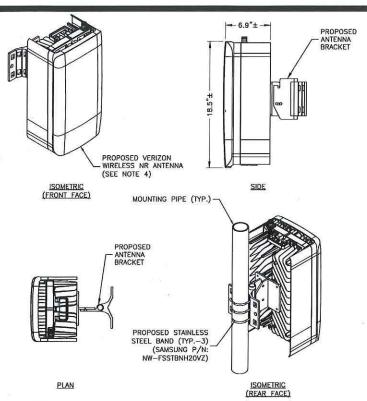
1350 MASSACHUSETTS AVE CAMBRIDGE, MA 02138

SHEET TITLE

WEST ELEVATION

SHEET NUMBER

C-2

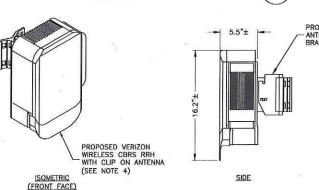


NOTES:

PLAN

- INSTALL ALL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. USE APPROPRIATE MOUNTING HARDWARE FOR CONSTRUCTION TYPE.
- ANTENNAS ARE SHOWN PERPENDICULAR TO BUILDING FACADE, ANTENNAS WILL BE REQUIRED TO BE PANNED TO MEET REQUIRED AZIMUTHS.
- CONTRACTOR TO UTILIZE 3M WRAP ONLY FOR THE NR HRU ANTENNAS TO MATCH SURROUNDINGS ARRAS. ALL OTHER ANTENNAS TO BE PAINTED TO MATCH OR UTILIZE 3M WRAP PER CM REQUIREMENTS. INSTALL 3M WRAP ON ANTENNAS PER MANUFACTURER'S SPECIFICATION & RECOMMENDATIONS.

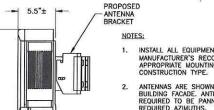




MOUNTING PIPE (TYP.) PROPOSED STAINLESS STEEL BAND (TYP .- 2) NW-FSSTBNH20VZ) ISOMETRIC

PROPOSED ANTENNA

CBRS RRH WITH CLIP ANTENNA DETAIL

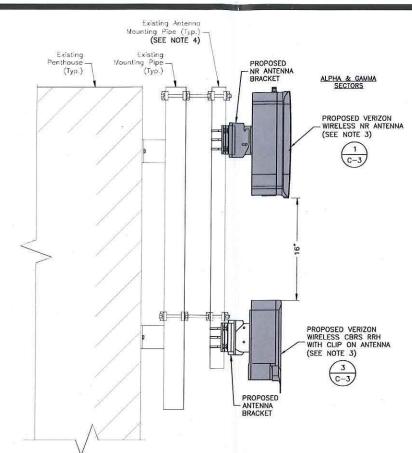


INSTALL ALL EQUIPMENT PER
MANUFACTURER'S RECOMMENDATIONS, USE
APPROPRIATE MOUNTING HARDWARE FOR
CONSTRUCTION TYPE.

ANTENNAS ARE SHOWN PERPENDICULAR TO BUILDING FACADE. ANTENNAS WILL BE REQUIRED TO BE PANNED TO MEET REQUIRED AZIMUTHS.

3. ANTENNA WEIGHT: 20 LBS.

CONTRACTOR TO UTILIZE 3M WRAP ONLY FOR THE NR HRU ANTENNAS TO MATCH SURROUNDINGS AREAS. ALL OTHER
ANTENNAS TO BE PAINTED TO MATCH OR
UTILIZE 3M WRAP PER CM REQUIREMENTS.
INSTALL 3M WRAP ON ANTENNAS PER MANUFACTURER'S SPECIFICATION & RECOMMENDATIONS.



NR & CBRS ANTENNA MOUNTING DETAIL SCALE: 3/4"=1' FOR 11"x17" 1 1/2"=1' FOR 22"x34"

1/2'



Pipe (Typ.)

PROPOSED VERIZON WIRELESS ANTENNA (3/SECTOR) (TYP.-9) (SEE NOTE 4

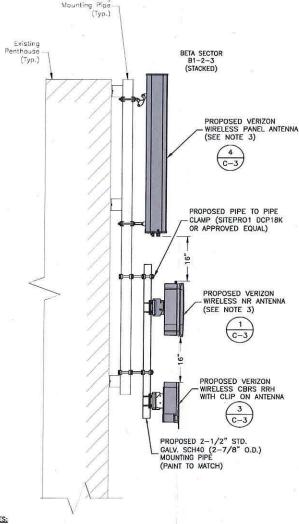
- INSTALL ALL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. USE APPROPRIATE MOUNTING HARDWARE FOR CONSTRUCTION TYPE.
- 2. ALL EQUIPMENT SHALL BE GROUNDED PER VERIZON WIRELESS STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
- WEATHER SEAL ALL WALL PENETRATIONS & WEATHER SEAL AROUND EXTERIOR WALL MOUNT WITH SILICONE SEALANT.
- CONTRACTOR TO UTILIZE 3M WRAP ONLY FOR THE NR HRU ANTENNAS TO MATCH SURROUNDINGS AREAS, ALL OTHER ANTENNAS TO BE PAINTED TO MATCH OR UTILIZE 3M WRAP PER CM REQUIREMENTS, INSTALL 3M WRAP ON ANTENNAS PER MANUFACTURER'S SPECIFICATION & RECOMMENDATIONS.

MANUFACTURER: COMMSCOPE FREQUENCY: (700LTE/850CDMA/850LTE/ 1900LTE/2100LTE) DIMENSIONS: 55.6"H X 11.9"W X 7.1"D WEIGHT: 35.1 LBS.

PANEL ANTENNA DETAIL

4

- INSTALL ALL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. USE APPROPRIATE MOUNTING HARDWARE FOR CONSTRUCTION TYPE.
- ANTENNAS ARE SHOWN PERPENDICULAR TO BUILDING FACADE. ANTENNAS WILL BE REQUIRED TO BE PANNED TO MEET REQUIRED AZIMUTHS.
- CONTRACTOR TO UTILIZE 3M WRAP ONLY FOR THE NR HRU ANTENNAS TO MATCH SURROUNDINGS AREAS. ALL OTHER ANTENNAS TO BE PAINTED TO MATCH OR UTILIZE 3M WRAP PER CM REQUIREMENTS. INSTALL 3M
- IF REQUIRED TO REPLACE EXISTING MOUNTING PIPE FOR NEW ANTENNAS, NEW PIPE SHALL BE 2-1/2" STD. SCH40 (2-7/8" O.D.) GALVANIZED MOUNTING



- INSTALL ALL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. USE APPROPRIATE MOUNTING HARDWARE FOR CONSTRUCTION TYPE.
- ANTENNAS ARE SHOWN PERPENDICULAR TO BUILDING FACADE. ANTENNAS WILL BE REQUIRED TO BE PANNED TO MEET REQUIRED AZIMUTHS.
- CONTRACTOR TO UTILIZE 3M WRAP ONLY FOR THE NR HRU ANTENNAS TO MATCH SURROUNDINGS AREAS, ALL OTHER ANTENNAS TO BE PAINTED TO MATCH OR UTILIZE 3M WRAP PER CM REQUIREMENTS, INSTALL 3M WRAP ON ANTENNAS PER MANUFACTURER'S SPECIFICATION & RECOMMENDATIONS.

NR & CBRS ANTENNA MOUNTING DETAIL

SCALE: 3/8"=1' FOR 11"x17" 3/4"=1' FOR 22"x34"



VERIZON WIRELESS 118 FLANDERS ROAD WESTBOROUGH, MA 01581-3956

HARVARD_SQ_MA

	ANTMO	DRAWINGS
2	08/18/20	FOR SUBMITTAL
1	06/18/20	FOR SUBMITTAL
0	09/24/19	FOR SUBMITTAL
A	09/24/19	FOR REVIEW



Dewberry Engineers Inc. 99 SUMMER STREET SUITE 700 BOSTON, MA 02110 PHONE: 617.695.3400 FAX: 617.695.3310



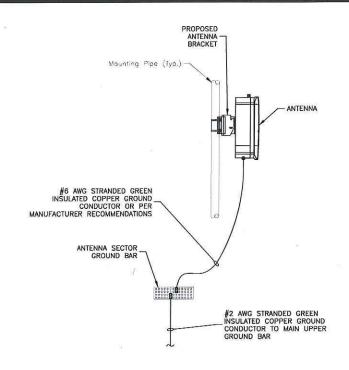
DRAWN BY:	JG
REVIEWED BY:	OAS
CHECKED BY:	BBR
PROJECT NUMBER:	50121487
JOB NUMBER:	50121759

350 MASSACHUSETTS AVE CAMBRIDGE, MA 02138

SHEET TITLE

CONSTRUCTION DETAILS-I

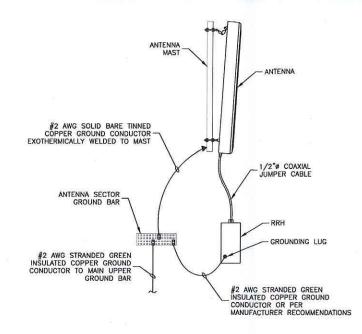
SHEET NUMBER



NOTES:

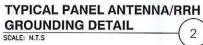
- 1. VERIFY EXISTING GROUNDING SYSTEM IS INSTALLED PER VERIZON
- BOND NEW EQUIPMENT INTO EXISTING GROUND SYSTEM IN ACCORDANCE WITH VERIZON WIRELESS STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.





NOTES:

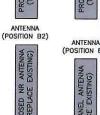
- VERIFY EXISTING GROUNDING SYSTEM IS INSTALLED PER VERIZON WIRELESS STANDARDS.
- BOND NEW EQUIPMENT INTO EXISTING GROUND SYSTEM IN ACCORDANCE WITH VERIZON WIRELESS STANDARDS & MANUFACTURER'S RECOMMENDATIONS.





ANTENNA









LTE 700/850

NOTES:



MOUNTING CLEARANCE TOP: ≥ 12" SIDES: ≥ 8" BOTTOM: ≥ 16" FRONT: > 36"

SEE MANUFACTURER SPECIFICATIONS & RECOMMENDATIONS.

MANUFACTURER:

MODEL:

WEIGHT:

DIMENSIONS:

LTE 1900/2100

MANUFACTURER:	SAMSUNG
MODEL:	LTE 1900/2100 RRH
DIMENSIONS:	15.0"H X 15.9"W X 10.0"D
WEIGHT:	97.5 LBS

#6 AWG STRANDED COPPER GROUND WIRE WITH (2) HOLE GROUND LUG DOWN

CONTRACTOR TO VERIFY WITH CONSTRUCTION MANAGER FOR FINAL MANUFACTURER SPECIFICATIONS PRIOR TO CONSTRUCTION.

CONTRACTOR TO UTILIZE HILTI-HY200 FOR HILTI-HITZ 3/8"9 THREADED RODS WITH 3-3/8" EFFECTIVE EMBEDMENT IN THE CONCRETE WALL TO MOUNT THE GALV.

3. SILICONE AROUND UNISTRUT AS REQUIRED.

UNISTRUT. (2) UNISTRUT PER RRH, (2) RODS PER UNISTRUT SPACED '18" O.C.

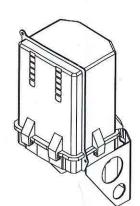
COAX/HYBRID CABLE

DO NOT INSTALL CABLE GROUND KIT AT A BEND. ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.

TO GROUND BAR

- GROUNDING KIT SHALL BE TIN PLATED COPPER WITH TWO-HOLE LUG, SIZE PER COAX DIAMETER.
- WEATHER SEAL GROUND KIT PER CARRIER REQUIREMENTS.
- COAX CABLE GROUND KIT LOCATION & QUANTITY SHALL BE PER CARRIER SPECIFICATIONS & STANDARDS.

COAX/HYBRID GROUNDING DETAIL



RAYCAP

32.0 LBS

LARGE JUNCTION BOX

29.5"H X 16.5"W X 12.6"D

Dewb	erry
	(1996)

2 08/18/20

1 06/18/20

0 09/24/19 A 09/24/19

VERIZON WIRELESS 118 FLANDERS ROAD

WESTBOROUGH, MA 01581-3956

HARVARD_SQ_MA

ANTMO DRAWINGS

FOR SUBMITTAL FOR SUBMITTAL

FOR SUBMITTAL

FOR REVIEW

Dewberry Engineers Inc. 99 SUMMER STREET SUITE 700 BOSTON, MA 02110 PHONE: 617.695.3400 FAX: 617.695.3310



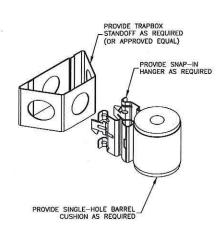
Jo
OAS
BBR
50121487
50121759

350 MASSACHUSETTS AVE CAMBRIDGE, MA 02138

SHEET TITLE

CONSTRUCTION DETAILS-II

SHEET NUMBER



NOTE:

PROVIDE C-CLAMP SUPPORTS & STAINLESS STEEL HOSE CLAMPS AS REQUIRED BY SITE CONDITIONS.

NR JUMPER MOUNT

NOTE:

ANTENNA

(POSITION A1/G1)

ANTENNA (POSITION A2/G2) ANTENNA

(POSITION A3/G3)

ANTENNA

(POSITION A4/G4)

ANTENNA

(POSITION A5/G5)

AS VIEWED STANDING BEHIND THE ANTENNAS.

 CONTRACTOR TO UTILIZE 3M WRAP FOR ALL ANTENNAS TO MATCH SURROUNDING AREAS. INSTALL 3M WRAP ON ANTENNAS PER MANUFACTURER'S SPECIFICATION & RECOMMENDATIONS.
COORDINATE COLOR WITH VERIZON WIRELESS C.M.

ALPHA & GAMMA

ANTENNA CONFIGURATION SCALE: N.T.S.

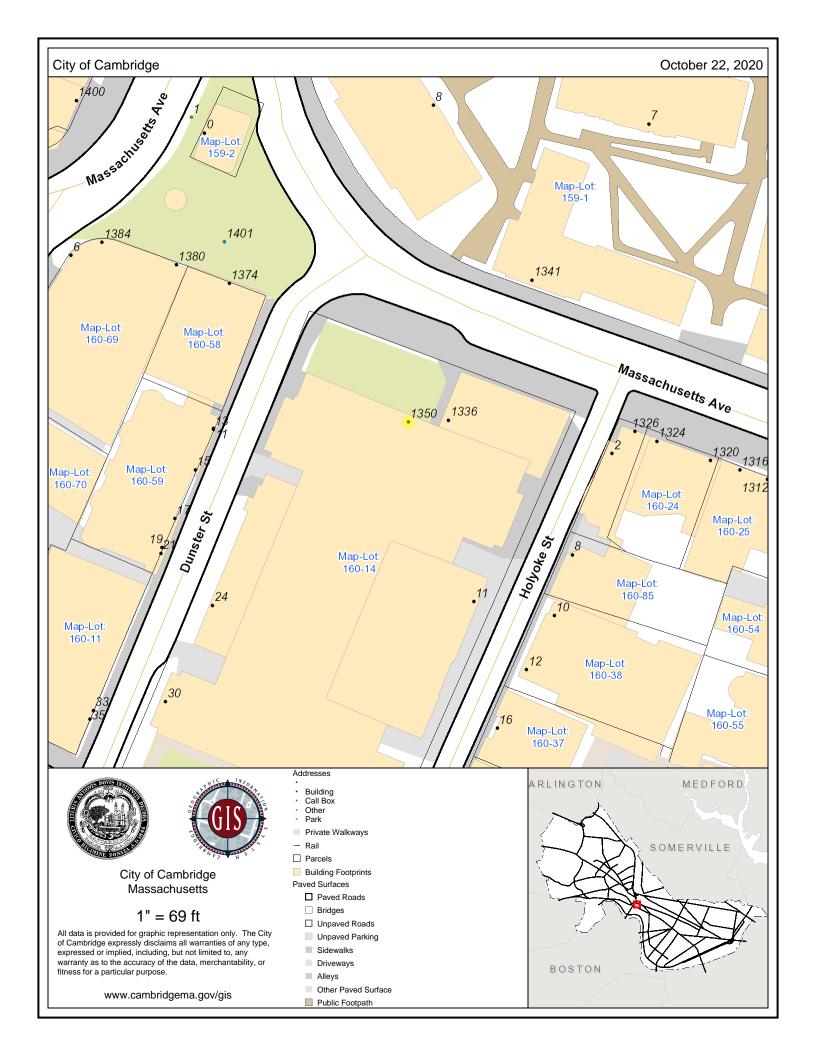


BETA

ANTENNA

(POSITION B3)

REMOTE UNIT DETAILS



CITY OF CAMBRIDGE, MASSACHUSETTS BOARD OF ZONING APPEAL

STATEMENT IN SUPPORT OF APPLICATION FOR SPECIAL PERMIT

Applicant: Cellco Partnership d/b/a Verizon Wireless

Property: 1350 Massachusetts Avenue

Zoning: Business B; Harvard Square Overlay; Harvard, Radcliffe, Lesley Overlay

Proposed Use: Mobile Communications Facility (Modification)

BACKGROUND

The Applicant, Cellco Partnership d/b/a Verizon Wireless ("Applicant" or "Verizon Wireless"), is licensed by the Federal Communications Commission ("FCC") to provide personal wireless services within the market area that includes the City of Cambridge. To the extent required, Verizon Wireless seeks a special permit from the Board of Zoning Appeal (the "BZA") to allow it to upgrade its existing mobile communications facility on the existing building at 1350 Massachusetts Avenue (the "Subject Property").

The existing and proposed Verizon Wireless mobile communications facility is a personal wireless services facility within the meaning of the Federal Telecommunications Act ("TCA"), 47 U.S.C. § 332(c)(7)(C)(ii). It is also a mobile communications facility within the meaning of the Cambridge Zoning Ordinance (the "Zoning Ordinance"). This application is submitted with full reservation of the Applicant's rights under federal, as well as state and local law, including, without limitation, Section 6409 of the federal Middle Class Tax Relief and Job Creation Act of 2012, commonly referred to as the "Spectrum Act."

DESCRIPTION OF PROJECT

As shown on the Plans and Photographs submitted with this application, the Subject Property is improved with an existing multi-story building ("Building"). Verizon Wireless has installed and operates an existing mobile communications facility consisting of three sectors of four panel antennas (twelve in total), a rooftop equipment shelter, and appurtenant rooftop cables and utility connections. Each of the existing antenna sectors is mounted on the façade of an existing rooftop penthouse structure.

Verizon Wireless proposes to replace all twelve existing panel antennas and add one panel antenna to each sector, resulting in three sectors of five panel antennas (fifteen in total) as part of its ongoing efforts to upgrade its network and expand its services. The new antennas will be mounted to the existing antenna mounts and, like the existing antennas, painted or wrapped to match the façade of the penthouse to which they are attached. In addition, Verizon Wireless proposes to: (a) relocate one remote radio head ("RRH") per sector (three in total) from its existing equipment shelter to the rear of each penthouse to which a Verizon Wireless antenna sector is mounted; (b) install one additional RRH per sector (three in total) and one junction box per sector (three in total) to the rear of each rooftop penthouse that houses a Verizon Wireless

antenna sector; and (c) replace existing cabling with new hybrid flex cables serving the new antennas.

REQUEST FOR RELIEF AND SATISFACTION OF APPLICABLE STANDARDS

Verizon Wireless seeks a special permit pursuant to Footnote 49 to the Table of Use Regulations (Zoning Ordinance section 4.40.49) to allow it to upgrade its existing mobile communications facility on the Building at the Subject Property. The following analysis demonstrates that the proposed modification of the existing Verizon Wireless installation meets these standards.¹

1. The scope of or limitations imposed by any license secured from any state or federal agency having jurisdiction over such matters.

Verizon Wireless is licensed by the Federal Communications Commission ("FCC") to provide personal wireless services within the market area that includes the City of Cambridge. There are no limitations imposed on Verizon Wireless' licenses that would prevent it from installing and operating a mobile communications facility on the Subject Property as proposed in this application.

2. 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 a building's roof or other features of the building as support and background; (2) through the use of 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 from off the site.

As depicted on the Plans and Photographs, the proposed modifications to the existing Verizon Wireless installation on the Building satisfies these standards. The proposal involves replacing twelve panel antennas (four per sector) that are currently mounted on the façades of three existing rooftop penthouses, with fifteen new antennas (five per sector) that will use the same mounts and will be painted or wrapped to match the façade to which it is attached, like the existing antennas are, thereby minimizing visual impact. The proposal also includes the replacement of existing RRH and installation one additional RRH and one junction box for each of the three sectors. The proposed RRH and junction boxes will be mounted to the rear of the existing rooftop penthouses (i.e., on the opposite side from the antennas) and therefore will be screened from view by the penthouses.

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

2

¹ In providing information addressing the standards set forth in the Ordinance that concern the proposed wireless communications use, Verizon Wireless does not concede, and expressly reserves all of its rights with respect to, any attempt by the City to exercise jurisdiction over matters concerning Verizon Wireless' license or the technical performance of the proposed site or its network.

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 telecommunication facility is not inconsistent with the character that does prevail in the surrounding neighborhood.

Not applicable. The Subject Property is not located in a residential zoning district.

The proposed modification of the existing wireless communications installation also satisfies the criteria of Section 10.43 of the Ordinance relating to the grant of special permits. The project conforms to the standards of Section 4.40.49 as discussed above. It will not have any traffic impacts and will not affect the operation or development of adjacent uses. It will not be detrimental to the health, safety or welfare of the City, and indeed the availability of reliable wireless communications enhances health, safety and welfare. The proposed modification of the existing installation will also not impair the integrity of the district or adjoining districts, or derogate from the intent and purpose of the Ordinance. The availability of reliable wireless communications service for both voice and data communications benefits businesses and residents which increasingly rely on these services for a wide variety of purposes. Reliable wireless service also enhances community safety, because it is used by public safety officials as well as the public in times of crisis, natural disaster, inclement weather, and similar circumstances.

The proposed modification is also consistent with the objectives of the Harvard Square Overlay District because it will not alter the existing urban form of the area and because the availability of more robust and reliable wireless and data services should be helpful in attracting and maintaining local businesses, customers, and neighboring residents and making the neighborhood more desirable for pedestrians generally. Because the proposed modification of the existing installation satisfies the criteria for granting a special permit, the applicant respectfully requests that the BZA grant a special permit to allow for the proposed upgrade of this existing wireless communications facility.

THE PROPOSED MODIFICATION CONSTITUTES AN ELIGIBLE FACILITIES REQUEST UNDER THE SPECTRUM ACT

Under the Spectrum Act and the implementing regulations adopted by the Federal Communications Commission² (the "FCC Regulations"), the proposed modification to the existing Verizon Wireless facility constitutes an eligible facilities request. The reasons for this are as explained below.

The Spectrum Act states, in pertinent part:

_

² See 47 C.F.R. 1.40001 (Wireless Facility Modifications).

Notwithstanding section 704 of the Telecommunications Act of 1996³ or any other provision of law, a state or local government may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station.⁴

The rules for implementing this requirement of the Spectrum Act (i.e., the FCC Regulations) went into effect on April 8, 2015.

Pursuant to the FCC Regulations, an "<u>eligible facilities request</u>" means "any request for modification of an existing wireless tower or *base station* that does not *substantially change* the physical dimensions of such tower or base station, involving ... collocation of new *transmission equipment* ... or replacement of transmission equipment." The FCC Regulations define "<u>base</u> station" to mean:

A structure or equipment at a fixed location that enables Commission-licensed or authorized wireless communications between user equipment and a communications network.

. . .

(iii) The term includes any structure other than a tower that, at the time the relevant application is filed with the State or local government under this section, supports or houses [equipment associated with wireless communications services] that has been reviewed and approved under the applicable zoning or siting process, or under another State or local regulatory review process, even if the structure was not built for the sole or primary purpose of providing such support.⁶

"Transmission equipment" is defined to include not only antennas but also all "equipment that facilitates transmission" for a FCC-licensed or authorized wireless communication service, including but not limited to "radio transceivers, antennas, coaxial or fiber-optic cable, and regular and backup power supply."

The proposed modification to the existing Verizon Wireless facility is an "eligible facilities request" under the Spectrum Act because:

(1) The existing building at 1350 Massachusetts Avenue that is the subject of this request constitutes a "base station" in that it currently "supports or houses" wireless communications equipment that has been reviewed and approved under the City's zoning ordinance, namely, the existing AT&T installation, which was approved by the BZA in Case No. 7936 and modified in Case Nos. 8705, 10082, and BZA-017087-2019;8

³ The Telecommunications Act of 1996 is codified as 47 U.S.C. § 332(c)(7).

⁴ 47 U.S.C. 1455(a)(1) (emphasis added).

⁵ 47 C.F.R. § 1.40001(b)(3) (emphasis added).

⁶ 47 C.F.R. § 1.40001(b)(1).

⁷ 47 C.F.R. § 1.40001(b)(8).

⁸ The existing Verizon Wireless facility is believed to have been constructed in 1995 or 1996, but neither Verizon Wireless nor the Inspectional Services Department (ISD) has been able to locate a copy of the original special permit. The AT&T special permit and subsequent revisions establish the Building on the Subject Property as a base station under the Spectrum Act. Note: On October 5, 2016 ISD issued a building permit (BLDC-048491-2016)

- (2) The proposed replacement of existing antennas constitutes a "replacement of transmission equipment;"
- (3) The proposed addition of antennas, RRHs, and junction boxes constitutes a "collocation of new transmission equipment;" and
- (4) The proposed modification does not "substantially change the physical dimensions" of the base station. The proposed modification does not constitute a "<u>substantial change</u>" as defined under the FCC Regulations⁹ because it:
 - (i) does not involve the installation of more than the standard number of equipment cabinets;

Comment: No equipment cabinets are being added.

- (ii) does not entail excavation or deployment outside of the current site;

 *Comment: All changes to the existing Verizon Wireless facility will occur on the building itself.
- (iii) does not defeat the concealment elements of the Existing Facility;

 Comment: As is the case with the existing antennas, the replacement antennas will be painted or wrapped to match the rooftop penthouse to which they are mounted. The RRHs and junction boxes will be mounted on the "rear" of the existing penthouses (opposite the antennas), where they will not be visible from street level.
- (iv) does not increase the height of the building by more than 10% or ten feet; *Comment*: *The proposed modification will not increase the height of the building.*
- (v) does not add any appurtenances that would protrude from the edge of the building by more than six feet; and

 Comment: The proposed antennas and the RRHs and junction boxes will be mounted to the same rooftop penthouses as the existing antennas and will not protrude from the building façade; and
- (vi) complies with the conditions associated with the siting approval.

 Comment: The proposed modification satisfies the concealment conditions of the siting approval and subsequent modifications thereto. Other conditions imposed by the siting approval and subsequent modifications thereto are supplanted by the FCC Regulations and/or are irrelevant to this eligible facilities request.

Pursuant to Section 1.40001(c)(1) of the FCC Regulations, an applicant asserting that a request for modification is covered by the Spectrum Act may be required to submit "documentation or

5

authorizing Verizon Wireless to temporarily relocate several antennas in order to accommodate building renovations being undertaken by the property owner, Harvard University.

⁹ See 47 C.F.R. § 1.40001(b)(7)(i)-(vi) (definition of "substantial change").

information only to the extent reasonably related to determining whether the request meets the requirements of [the Spectrum Act]." Section 1.40001(c)(1) further states that a state or local government "may <u>not</u> require an applicant to submit any other documentation, including but not limited to documentation intended to illustrate the need for such wireless facilities or to justify the business decision to modify such wireless facilities." ¹⁰

The information presented by Verizon Wireless in connection with this application—including but not limited to the Site Plan, the Photographs, and this Statement—is sufficient for the BZA to determine that the proposed modification to the existing facility qualifies as an eligible facilities request under the Spectrum Act.

The FCC Regulations provide that an eligible facilities request must be approved within 60 days of submittal unless the local government determines that the application does not satisfy the requirements for an eligible facilities request or notifies the applicant within 30 days of submittal "clearly and specifically delineating all missing documents or information" that is "reasonably related to determining whether the request meets the requirements" for an eligible facilities request. ¹¹ Moreover, an eligible facilities request is deemed approved as a matter of federal law, if not denied within 60 days of submittal of the request. ¹² In filing this application, Verizon Wireless does not waive, and specifically reserves, all of its rights under federal law, including these provisions.

CONCLUSION

For all of the foregoing reasons, Verizon Wireless respectfully requests that the Board of Zoning Appeal grant a special permit in addition to granting any other relief that may be appropriate or necessary, to authorize the proposed equipment upgrade as set forth on the Plans and described in these application materials.

Respectfully submitted, Cellco Partnership d/b/a Verizon Wireless By its attorney,

Timothy C. Twardowski, Esq. Robinson & Cole LLP One Boston Place, 25th Floor Boston, MA 02108 (617) 557-5965

Dated: November 20, 2020

6

-

¹⁰ 47 C.F.R. § 1.40001(c)(1) (emphasis added).

¹¹ 47 C.F.R. 1.40001(c)(2).

¹² 47 C.F.R. 1.40001(c)(4).



For visual reference only. Actual visibility is dependent upon weather conditions, season, sunlight, and viewer location.

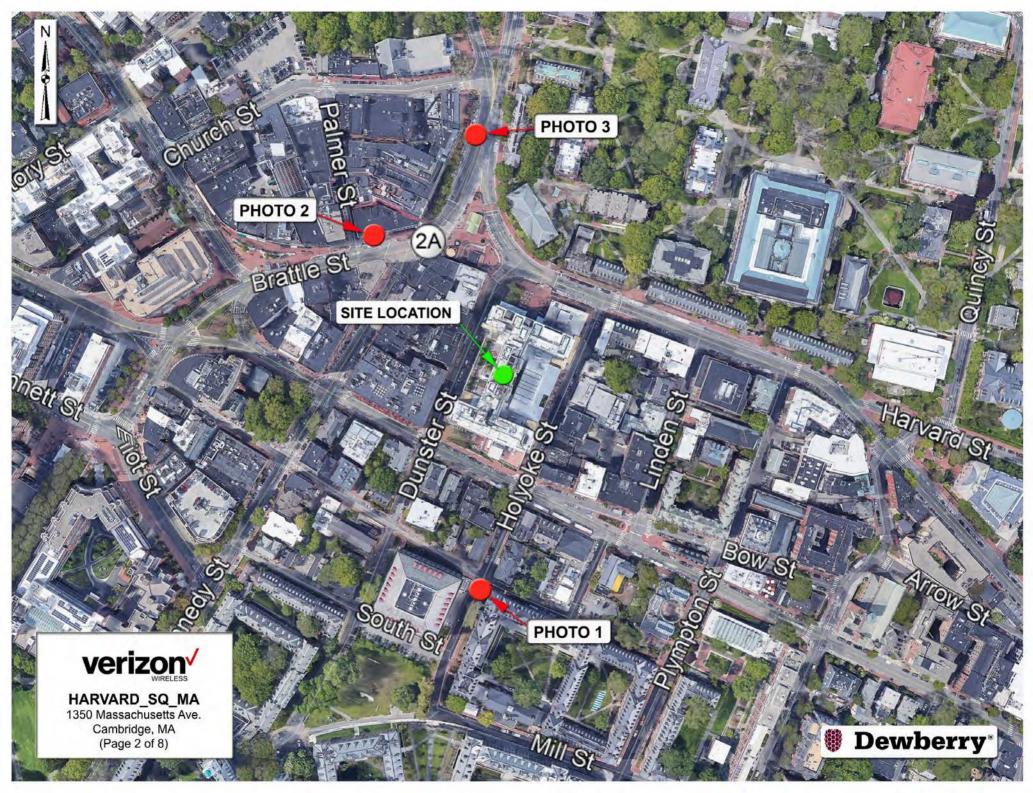


HARVARD_SQ_MA

DEWBERRY NO. 50121759 (Page 1 of 8)



Dewberry Engineers Inc.
99 Summer St.
Suite 700
Boston, MA 02110



Actual View

Existing Panel Antenna (To Be Replaced) (Typ.-4)



HARVARD_SQ_MA Photo 1A

View Facing North From Holyoke Street (Page 3 of 8)



Proposed View

Proposed Beta Sector Panel Antenna (Typ.-3) Proposed Beta Sector NR HRU Antenna

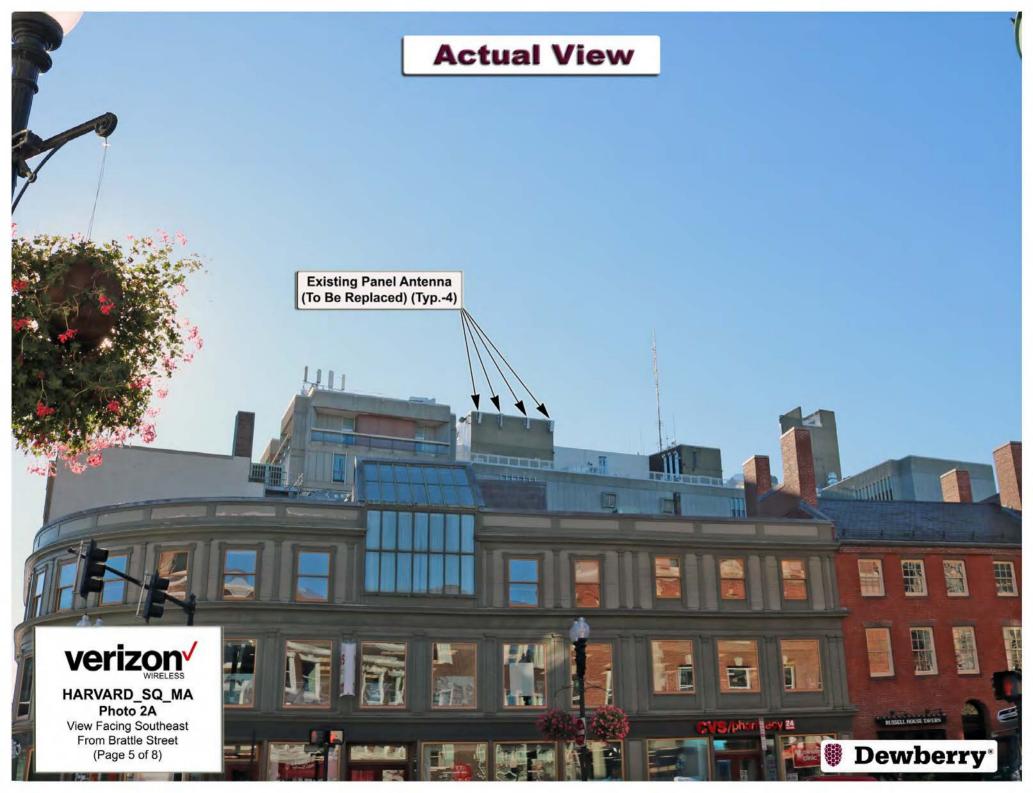
> Proposed Beta Sector CBRS RRH Antenna With Clip On Antenna

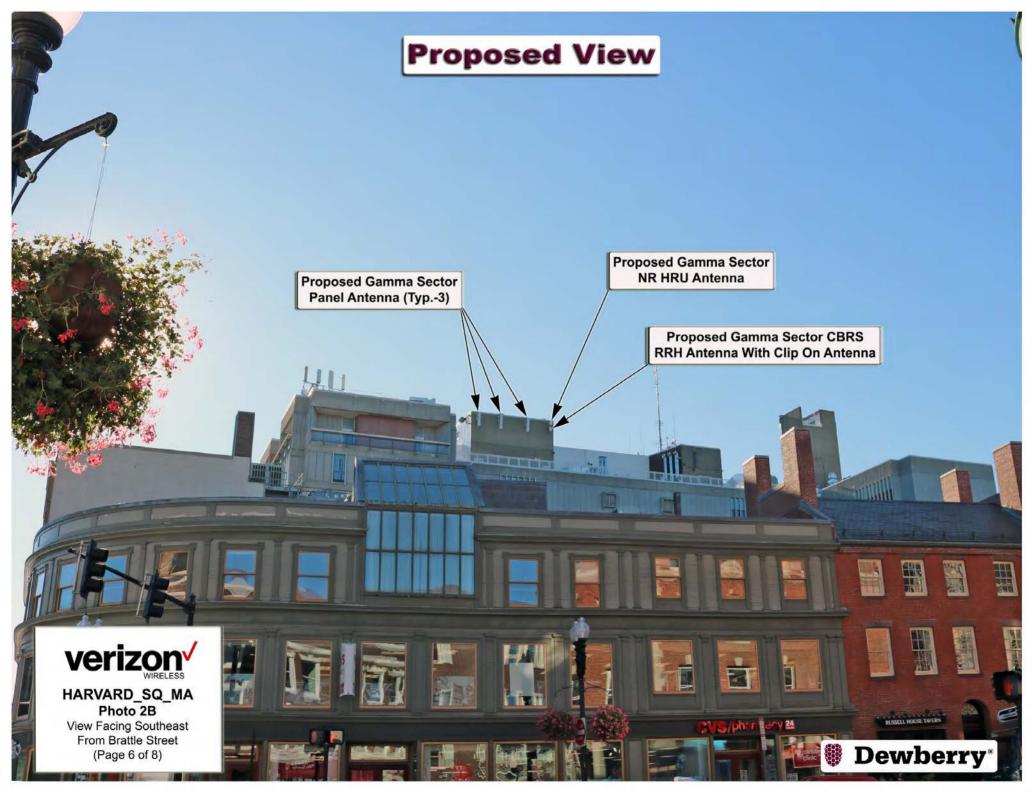
verizon V

HARVARD_SQ_MA Photo 1B

View Facing North From Holyoke Street (Page 4 of 8)







Actual View

Existing Panel Antenna (To Be Replaced) (Typ.-4)

verizon V

HARVARD_SQ_MA Photo 3A View Facing South

View Facing South From Massachusetts Ave. (Page 7 of 8)



Proposed View

Proposed Alpha Sector Panel Antenna (Typ.-3) Proposed Alpha Sector NR HRU Antenna

> Proposed Alpha Sector CBRS RRH Antenna With Clip On Antenna

verizon\(\frac{1}{2}\)

HARVARD_SQ_MA Photo 3B

View Facing South From Massachusetts Ave. (Page 8 of 8)



Mass Avenue 10 Church St6 Church \$ 26 Church St 1438 Massachusetts Ave 5 1436 Massachusetts Ave 169-81 169-100 169-99 1434 Massachusetts Ave 9 Harvard Yard 1430 Massachusetts Ave 1420 Massachusetts Ave 169-102 414 Massachusetts Ave 159-1 169-93 1400 Massachusetts Ave 8 Harvard Yard 1 Harvard Sq 7 Harvard Yard 169-50 0 Harvard Sq. 3 Brattle St 169-98 8 Brattle St Brattle St **Harvard Square** 1401 Massachusetts Ave 1380 Massachusetts Ave 1374 Massachusetts Av 1341 Massachusetts Ave 14 Brattle St 7 JFK St 6 14 JFK St 160-69 160-58 160-57 9 JFK St St Massachusetts Ave Smith Center Plaza 18 JFK St 20 JFK St 22 JFK St 1350 Massachusetts Aye Dunster St 13 Dunster St 24 JFK St 2 Holyoke St 25 JFK St 15 Dunster St 26 JFK St 1320 Massachusetts Ave 160-59 160-72 160-70 160-74 160-24 17 Dunster St 5 30 JFK St Dunster St Stand 34 JFK St 160-25 8 Holyoke St 36 JFK St 160-67 24 Dunster St 160-14 38 JFK St 160-85 Holyoke St 40 JFK St 10 Holyoke St 160-54 12 Holyake St 160-38 7 Linden S 83 Mt Auburn St160-11 81 Mt Auburn St 33 Dunster St 30 Dunster St 35 Dunster St 16 Holyoke St 160-55 92 Mt Auburn St 162-4 9 Linden St 90 Mt Auburn St 20 Holyoke St 160-37 75 Mt Auburn St 22 Holyoke St160-83 82 Mt Auburn St Smith Center Rear 65-R Mt Auburn St 162-68 160-84 162-4 160-36 24 Holyoke \$t₁₆₀₋₇₆ 162-47 162-67 45 Dunster St S 160-30 7 Mt Auburn St 160-77 48 Dunster St162-10 78 Mt Auburn St ROAD 162-48 160-53 15 Linden St 67 Mt Auburn St 65 Winthrop St 76 Mt Auburn St 160-60 52 Dunster St 162-11 76-A Mt Auburn St 65 Mt Auburn St 162-7 74/MtAuburn St 63 Mt Auburn St Winthrop St 54 Dunster St 162-62 162-49 31 Holyoke St 72 Mt Auburn St 54-A Dunster St Bow St 25 Holyoke St161-1 162-14 162-31 41 Winthrop St 162-63 161-2 161-3 161-5 162-61 160-61 164-93

162-32

1350 Mass Ave

160-37-74-38 /159-1 /162-11 PRESIDENT & FELLOWS OF HARVARD COLLEGE C/O HARVARD REAL ESTATE, INC. HOLYOKE CENTER, ROOM 1000 1350 MASSACHUSETTS AVE CAMBRIDGE, MA 02138-3895

160-14
PRESIDENT AND FELLOWS OF HARVARD COLLEGE
HOLYOKE CENTER, ROOM 1017
1350 MASS AVENEUE
CAMBRIDGE, MA 02138-3895

160-14
PRESIDENT & FELLOW OF HARVARD HARVARD
UNIVERSITY R.E. DEPT
HOLYOKE CENTER., ROOM 451
1350 MASS AVE
CAMBRIDGE, MA 02138-3895

159-2 OUT OF TOWN NEWS, INC. C/O HUDSON NEWS AGENCY 0 HARVARD SQ. CAMBRIDGE, MA 02138

162-67 45 DUNSTER STREET LLC 2 HOLYOKE PLACE CAMBRIDGE, MA 02138

160-77 HARVARD STUDENT AGENCIES, INC 67 MT. AUBURN ST CAMBRIDGE, MA 02138 160-76
WHOULEY, FREDERICK R., TRS OF THE
FREDERICK R. WHOULEY IRREVOCABLE TRS
15 ANIS ROAD
BELMONT, MA 02478

160-58 CAMBRIDGE SAVINGS BANK C/O KAREN A. GIESTA 1374 MASS AVE CAMBRIDGE, MA 02138-3891

160-85 P.C. HOLYOKE STREET, LLC, 160 FEDERAL ST. 9TH FL BOSTON, MA 02110

161-1
PRESIDENT & FELLOWS OF HARVARD COLLEGE C/O
HARVARD REAL ESTATE, INC.
HOLYOKE CENTER, ROOM 1000
1350 MASSACHUSETTS AVE
CAMBRIDGE, MA 02138-3895

162-62 76 MOUNT AUBURN STREET, INC. C/O RICK CHILDS, SRB CORP 76 MOUNT AUBURN ST CAMBRIDGE, MA 02138

160-83 PLATIN LLC 15 WALNUT ST., SUITE 150 WELLESLEY, MA 02481 ROBINSON & COLE LLP C/O TIMOTHY C. TWARDOWSKI, ESQ. ONE BOSTON PLACE – 25TH FL. BOSTON, MA 02108

CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS 118 FLANDERS ROAD WESTBOROUGH, MA 01581

162-10 SIGNET ASSOCIATES 46 DUNSTER ST CAMBRIDGE, MA 02138

160-84
DAVIDSON, CHARLES L.
C/O STEVE MISCISZ MRS MGMT, LLC
1 APPLE RD
BEVERLY, MA 01915

160-11 TRINITY REALTY LIMITED PARTNERSHIP I P.O. BOX 380212 CAMBRIDGE, MA 02238

160-59 DANA CHAMBERS ALLIANCE P.O. BOX 650043 NEWTON, MA 02465