



CITY OF CAMBRIDGE

BOARD OF ZONING APPEAL

831 Massachusetts Avenue, Cambridge MA 02139

617-349-6100

2025 MAY 29 AM 10:05
OFFICE OF THE CITY CLERK
CAMBRIDGE, MASSACHUSETTS

BZA Application Form

BZA Number: 1167197

General Information

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

Special Permit: X

Variance:

Appeal:

PETITIONER: John Kurt Miller, Trustee C/O Cellco Partnership d/b/a Verizon Wireless

PETITIONER'S ADDRESS: 1396 Beacon Street, Brookline, Massachusetts

LOCATION OF PROPERTY: 1654 Massachusetts Ave., Cambridge, MA

TYPE OF OCCUPANCY: Multi-Use Residential

ZONING DISTRICT: Multi-Use Residence C-2 Zone

REASON FOR PETITION:

/Telecommunication Facility (antenna)/

DESCRIPTION OF PETITIONER'S PROPOSAL:


Verizon Wireless proposes to modify the existing Beta sector chimney mount, specifically, to remove two (2) existing Beta and Gamma CDMA Antennas from existing mast pipes, relocate three (3) existing NR Antennas, and install three (3) new MT6413-77A Antennas with integrated Remote Radio Heads on existing mounting pipes, one (1) new combiner, as well as additional hardware per RFDS located inside of existing equipment room. All new equipment will have 3M wrap to match the proposed MT6413-77A Antennas and painted to match the chimney color, hardware and jumpers. No additional changes are proposed for the modification.

SECTIONS OF ZONING ORDINANCE CITED:

Article: 4.000	Section: 4.32.G.1 & Section 4.40(Footnote 49) (Telecommunication Facility)
Article: 10.000	Section: 10.40 - 10.46 (Special Permit)
Article: 6409	Section: Federal Middle Class Tax Relief Act (Spectrum Act)

Cellco Partnership d/b/a Verizon Wireless

Original
Signature(s):


(Petitioner (s) / Owner)

Ellen Freyman as Authorized Agent for
Cellco Partnership d/b/a Verizon Wireless

(Print Name)

Address:	<u>1441 Main Street, Suite 1100, Springfield, MA 01103</u>
Tel. No.	<u>(413) 737-1131</u>
E-Mail Address:	<u>Efreyman@ssfpc.com</u>

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 John Kurt Miller, Trustee


(OWNER)

Address: P.O. Box 313, South Hamilton, MA 01936

State that I/We own the property located at 1654 Massachusetts Avenue,
which is the subject of this zoning application.

The record title of this property is in the name of Clifford V. Miller Trust

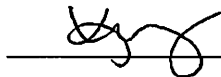
*Pursuant to a deed of duly recorded in the date 12/29/1972, Middlesex South
County Registry of Deeds at Book 12356, Page 367; or
Middlesex Registry District of Land Court, Certificate No. _____
Book _____ Page _____.


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

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

Commonwealth of Massachusetts, County of Essex

The above-name John Kurt Miller personally appeared before me,
this 16 of April, 2025, and made oath that the above statement is true.

 Notary

My commission expires November 2, 2029 (Notary Seal).

- If ownership is not shown in recorded deed, e.g. if by 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.

Granting the Special Permit requested for 1654 Massachusetts Ave , Cambridge, MA (location) would not be a detriment to the public interest because:

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

As required by Verizon Wireless's license from the Federal Communications Commission ("FCC"), the upgraded facility will conform with requirements of the FCC. The tower has been designed in a manner which will minimize any visual impacts to the surrounding properties and community, and the proposed modification to the existing facility is not inconsistent with the character that prevails in the surrounding neighborhood.

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 have no effect on existing traffic or patterns of ingress or egress. The facility only generates about one vehicle trips per month by a standard passenger vehicle during normal business hours for routine maintenance, which will remain the case after the modification is complete.

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 not adversely effect any operations of adjacent uses. There will be no emission of light, odor, dust or glare and it will not generate any unusual noise or other adverse impacts. Instead, the facility will benefit the adjacent uses by enhancing wireless coverage in the area around the tower.

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 create no nuisance, hazard, or any other negative impacts on the people or properties within the City of Cambridge. There will be no traffic, noise, light, odor or any other potentially negative impact generated from the upgraded facility. The upgraded facility will only provide the community with increased wireless service and enhance the health, safety, and welfare of the residents of Cambridge.

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 upgraded facility is designed to minimize any potential visual impact to the surrounding properties and in no way impairs, but rather aligns with the purpose and intent of the Zoning Ordinance as well as the previously issued Special Permit for this use.

Date: _____

BZA Application Form**DIMENSIONAL INFORMATION****Applicant:** John Kurt Miller, Trustee C/O Celco Partnership d/b/a Verizon Wireless**Present Use/Occupancy:** Multi-Use Residential**Location:** 1654 Massachusetts Ave., Cambridge, MA**Zone:** Multi-Use Residence C-2 Zone**Phone:****Requested Use/Occupancy:** Multi-Use Residential

		<u>Existing Conditions</u>	<u>Requested Conditions</u>	<u>Ordinance Requirements</u>	
<u>TOTAL GROSS FLOOR AREA:</u>		N/A	N/A	N/A	(max.)
<u>LOT AREA:</u>		N/A	N/A	N/A	(min.)
<u>RATIO OF GROSS FLOOR AREA TO LOT AREA: ²</u>		N/A	N/A	N/A	
<u>LOT AREA OF EACH DWELLING UNIT</u>		N/A	N/A	N/A	
<u>SIZE OF LOT:</u>	WIDTH	N/A	N/A	N/A	
	DEPTH	N/A	N/A	N/A	
<u>SETBACKS IN FEET:</u>	FRONT	N/A	N/A	N/A	
	REAR	N/A	N/A	N/A	
	LEFT SIDE	N/A	N/A	N/A	
	RIGHT SIDE	N/A	N/A	N/A	
<u>SIZE OF BUILDING:</u>	HEIGHT	71'-0"	No Change	N/A	
	WIDTH	N/A	N/A	N/A	
	LENGTH	N/A	N/A	N/A	
<u>RATIO OF USABLE OPEN SPACE TO LOT AREA:</u>		N/A	N/A	N/A	
<u>NO. OF DWELLING UNITS:</u>		N/A	N/A	N/A	
<u>NO. OF PARKING SPACES:</u>		N/A	N/A	N/A	
<u>NO. OF LOADING AREAS:</u>		N/A	N/A	N/A	
<u>DISTANCE TO NEAREST BLDG. ON SAME LOT</u>		N/A	N/A	N/A	

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

N/A

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'.

GENERAL CONSTRUCTION NOTES :

1. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, AND COMPLY WITH VERIZON WIRELESS SPECIFICATIONS.
2. CONTRACTOR SHALL CONTACT "DIG SAFE" (888-344-7233) FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
4. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
5. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
6. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
7. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
9. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
10. 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 REQUIRE WRITTEN APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING.
11. EACH CONTRACTOR SHALL COOPERATE WITH THE OWNER'S REPRESENTATIVE, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
12. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE VERIZON WIRELESS CONSTRUCTION MANAGER.
13. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
14. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR WILL NOTIFY ENGINEER, VERIZON WIRELESS PROJECT CONSTRUCTION MANAGER, AND LANDLORD IMMEDIATELY.
15. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
16. ALL ROOF WORK SHALL BE DONE BY A QUALIFIED AND EXPERIENCED ROOFING CONTRACTOR IN COORDINATION WITH ANY CONTRACTOR WARRANTING THE ROOF TO ENSURE THAT THE WARRANTY IS MAINTAINED.
17. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
18. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH LANDLORD AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
19. CONTRACTOR SHALL FURNISH VERIZON WIRELESS WITH THREE AS-BUILT SETS OF DRAWINGS UPON COMPLETION OF WORK.
20. ANTENNAS AND CABLES ARE TYPICALLY PROVIDED BY VERIZON WIRELESS. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH PROJECT MANAGER TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED BY VERIZON WIRELESS. ALL ITEMS NOT PROVIDED BY VERIZON WIRELESS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED BY VERIZON WIRELESS.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR WILL COORDINATE WITH VERIZON WIRELESS PROJECT MANAGER TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY VERIZON WIRELESS. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON WIRELESS MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
22. GENERAL CONTRACTOR SHALL HAVE A LICENSED HVAC CONTRACTOR START THE HVAC UNITS, SYNCHRONIZE THE THERMOSTATS, ADJUST ALL SETTINGS ON EACH UNIT ACCORDING TO VERIZON WIRELESS CONSTRUCTION MANAGER'S SPECIFICATIONS, AND THOROUGHLY TEST AND BALANCE EACH UNIT TO ENSURE PROPER OPERATION PRIOR TO TURNING THE SITE OVER TO OWNER.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH VERIZON WIRELESS SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. UNLESS OTHERWISE NOTED VERIZON WIRELESS SHALL PROVIDE ALL REQUIRED RF MATERIAL FOR CONTRACTOR TO INSTALL, INCLUDING ANTENNAS, TMA'S, BIAS-T'S, COMBINERS, PDU, DC BLOCKS, SURGE ARRESTORS, GPS ANTENNA, GPS SURGE ARRESTOR, COAXIAL CABLE.
26. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL VERIFY ALL EQUIPMENT TO BE PROVIDED BY VERIZON WIRELESS FOR INSTALLATION BY CONTRACTOR.
27. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON WIRELESS SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
28. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
29. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
30. 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 POST OR MOUNTING CONNECTIONS, FOR ENGINEERING REVIEW AND INSPECTION.
31. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED D FIRE CODE APPROVED MATERIALS.
32. REPAIR ANY DAMAGE DURING CONSTRUCTION TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE CONSTRUCTION MANAGER AND LANDLORD.
33. ALL DISRUPTIVE WORK AND WORK WITHIN TENANT SPACES TO BE COORDINATED WITH BUILDING REPRESENTATIVE.

CODE SPECIFICATIONS:

1. ALL WORK SHALL COMPLY WITH THE FOLLOWING APPLICABLE CODES:

MASSACHUSETTS STATE BUILDING CODE, 10TH EDITION, CONSISTENT WITH THE FOLLOWING CODES:
2021 INTERNATIONAL RESIDENTIAL CODE (IRC)
2021 INTERNATIONAL BUILDING CODE (IBC)
2021 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
2023 NATIONAL ELECTRICAL CODE (NEC)

IN THE EVENT OF CONFLICT, THE MOST RESTRICTIVE CODE SHALL PREVAIL.
2. ALL STRUCTURAL WORK TO BE DONE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL, 14TH EDITION (AISC 14TH ED.)
3. ALL CONCRETE WORK TO BE DONE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE (ACI 301) SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 318) AND BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
4. ALL REINFORCING STEEL WORK TO BE DONE IN ACCORDANCE WITH THE (ACI 315) MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES.

GROUNDING NOTES:

1. GROUNDING SHALL COMPLY WITH NEC ART. 250.
2. GROUNDING CONDUCTORS SHALL BE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR INDOOR USE.
3. ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
4. ROUTE GROUNDING CONNECTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NOT BE BENT AT RIGHT ANGLE. ALWAYS MAKE 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY.
5. CONNECTIONS TO GROUNDING BAR SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
6. TEST COMPLETED GROUNDING SYSTEM AND RECORD RESISTANCE VALUES FOR PROJECT CLOSE-OUT DOCUMENTATION. GROUND RESISTANCE SHALL NOT EXCEED 5 OHMS.
7. GROUNDING CONDUCTORS BETWEEN MGB AND WATERMAIN SHALL BE #2/0. BONDING JUMPERS FROM METALLIC SURFACES SHALL BE #2 MINIMUM. ALL GROUND CONDUCTORS AND BONDING JUMPERS SHALL BE SOFT DRAWN ANNEALED, TINNED, BARE STRANDED COPPER WIRE. COAXIAL CABLES SHALL BE GROUNDED AT A MINIMUM OF TWO LOCATIONS USING VERIZON PROVIDED GROUNDING KITS. EXACT LOCATIONS SHALL BE FINALIZED IN THE FIELD BY THE CONSTRUCTION MANAGER.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
2. STRUCTURAL STEEL ROLLED SHAPES, PLATES, AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:
ASTM A-992, GRADE 50 ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE.
ASTM A-36 ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE.
ASTM A-500, GRADE B HSS SECTION (SQUARE, RECTANGULAR, ROUND)
ASTM A-325, TYPE SC OR N ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS.
F1554, GRADE 36 ALL ANCHORS BOLTS, UNLESS NOTED OTHERWISE.
ASTM A-53, GRADE B STEEL PIPE
3. ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1 WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 14TH EDITION. WHERE WELD LENGTH IS NOT INDICATED, USE FULL LENGTH WELD. AT THE COMPLETION OF ALL WELDING, ALL DAMAGE TO GALVANIZED COATING SHALL BE REPAIRED.
4. BOLTED CONNECTIONS SHALL USE BEARING TYPE GALVANIZED ASTM A325 BOLTS (3/4" DIA.) SUPPLIED WITH A NUT AND WASHER UNDER TURNED END AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
6. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA. GALVANIZED ASTM A 307 BOLTS UNLESS NOTED OTHERWISE.
7. USE PRECAUTIONS & PROCEDURES PER AWS D1.1 WHEN WELDING GALVANIZED METALS.
8. ALL EXISTING BEAM AND COLUMN DIMENSIONS SHALL BE FIELD VERIFY BY CONTRACTOR PRIOR TO FABRICATION. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THOSE SHOWN SHALL BE REPORTED TO DEWBERRY ENGINEER IMMEDIATELY.
9. CONNECTION DESIGN BY FABRICATOR WILL BE SUBJECT TO REVIEW AND APPROVAL BY ENGINEER.
10. ALL EXTERIOR STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH SPECIFICATION ASTM A123/A123M-00 HOT-DIP GALVANIZED FINISH UNLESS OTHERWISE NOTED. GALVANIZING SHALL BE PERFORMED AFTER SHOP FABRICATION TO THE GREATEST EXTENT POSSIBLE. ALL DINGS, SCRAPES, MARS, AND WELDS IN THE GALVANIZED AREAS SHALL BE REPAIRED. REPAIR DAMAGED GALVANIZED COATINGS ON GALVANIZED ITEMS WITH GALVANIZED REPAIR PAINT ACCORDING TO ASTM A780 AND MANUFACTURER'S WRITTEN INSTRUCTIONS, PRIOR TO COMPLETION OF WORK. TOUCHUP ALL DAMAGED GALVANIZED STEEL WITH APPROVED COLD ZINC, "GALVANOX", "DRY GALV", "ZINC-IT", OR APPROVED EQUIVALENT, IN ACCORDANCE WITH MANUFACTURERS GUIDELINES. TOUCHUP DAMAGED NON GALVANIZED STEEL WITH SAME PAINT APPLIED IN SHOP OR FIELD.
11. ALL WELDED COMPONENTS TO BE SHOP WELDED PRIOR TO INSTALLATION. NO WELDING ACTIVITIES IS PERMITTED DURING INSTALLATION OF PROPOSED EQUIPMENT5 AND/OR HARDWARE ON SITE.



VERIZON WIRELESS
51 ALDER STREET
MEDWAY, MA 02053

HARVARD SQ 2 MA

CONSTRUCTION DRAWINGS

8	05/09/25	FOR SUBMITTAL
7	01/30/25	FOR SUBMITTAL
6	11/29/22	FOR SUBMITTAL
5	11/01/22	FOR SUBMITTAL
4	09/30/22	FOR SUBMITTAL
3	08/11/22	FOR SUBMITTAL
2	08/05/22	FOR SUBMITTAL
1	05/10/22	FOR SUBMITTAL
0	04/08/22	FOR SUBMITTAL



Dewberry Engineers Inc.

99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310



DRAWN BY: 05-09-25 JG

REVIEWED BY: CDH

CHECKED BY: BBR

PROJECT NUMBER: 50121487

JOB NUMBER: 50143931

SITE NUMBER

137823

SITE ADDRESS

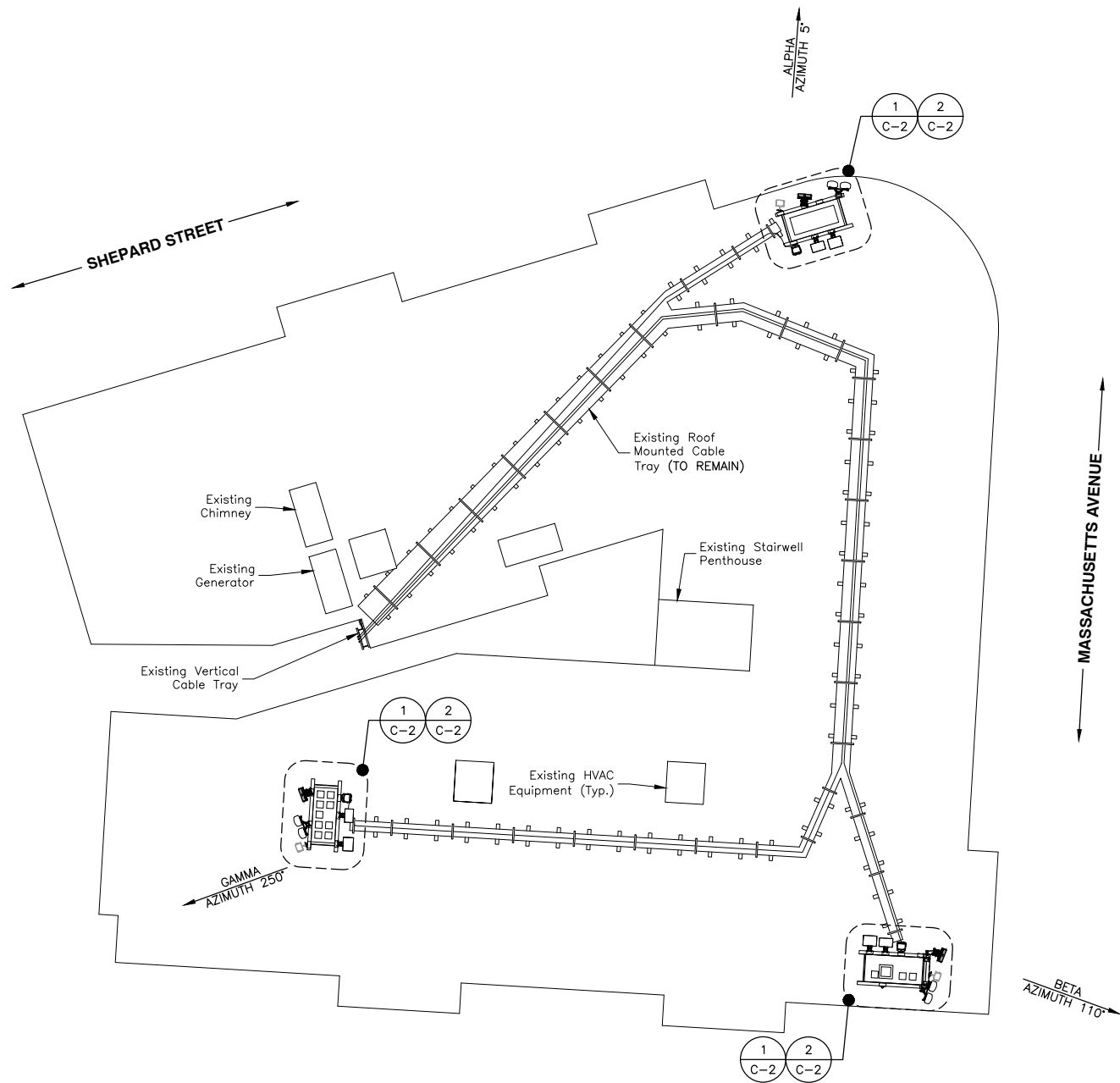
1654 MASSACHUSETTS AVE.
CAMBRIDGE, MA 02138

SHEET TITLE

GENERAL NOTES

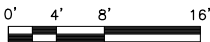
SHEET NUMBER

GN-1



ROOF PLAN

SCALE: 1/16"=1' FOR 11"x17"
1/8"=1' FOR 22"x34"



TOP OF ANTENNAS OR ANTENNA PIPES NOT TO EXCEED TOP OF CHIMNEYS. ALL ANTENNA TIP HEIGHTS TO MATCH. ALL EXISTING AND PROPOSED ANTENNAS TO BE PAINTED OR WRAPPED TO MATCH CHIMNEY COLOR.

SITE NOTES:

1. NORTH ARROW SHOWN AS APPROXIMATE.
2. INSTALL ALL EQUIPMENT PER STRUCTURAL ASSESSMENT LETTER BY DEWBERRY ENGINEERS INC. DATED 12/12/24, MOUNT ANALYSIS BY NETWORK BUILDING + CONSULTING, LLC DATED 11/11/24 & PER MANUFACTURER'S RECOMMENDATIONS.
3. CONTRACTOR TO INSPECT CONDITIONS OF ALL EXISTING ANCHORS/THREADED RODS FOR SIGNS OF RUST. WHERE RUST IS FOUND REMOVE WITH A WIRE BRUSH, APPLY COLD GALVANIZING COMPOUND TO PROTECT ANCHORS/THREADED RODS FROM CORROSION.



VERIZON WIRELESS
51 ALDER STREET
MEDWAY, MA 02053

HARVARD SQ 2 MA

CONSTRUCTION DRAWINGS

8	05/09/25	FOR SUBMITTAL
7	01/30/25	FOR SUBMITTAL
6	11/29/22	FOR SUBMITTAL
5	11/01/22	FOR SUBMITTAL
4	09/30/22	FOR SUBMITTAL
3	08/11/22	FOR SUBMITTAL
2	08/05/22	FOR SUBMITTAL
1	05/10/22	FOR SUBMITTAL
0	04/08/22	FOR SUBMITTAL



Dewberry Engineers Inc.

99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310



DRAWN BY: 05-09-25 JG

REVIEWED BY: CDH

CHECKED BY: BBR

PROJECT NUMBER: 50121487

JOB NUMBER: 50143931

SITE NUMBER

137823

SITE ADDRESS

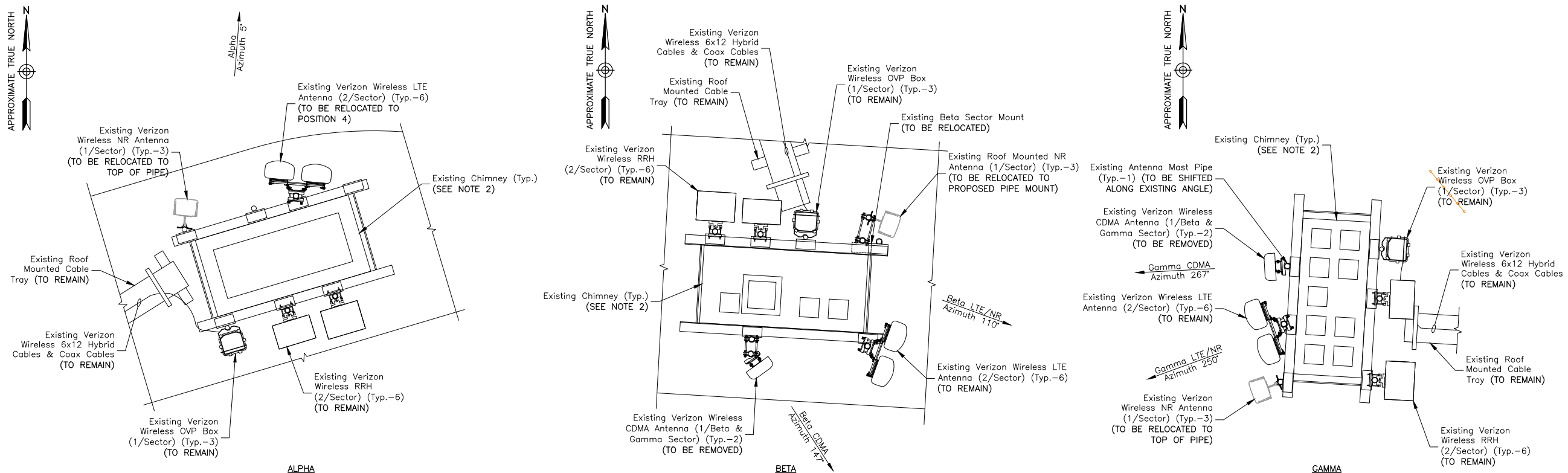
1654 MASSACHUSETTS AVE.
CAMBRIDGE, MA 02138

SHEET TITLE

ROOF PLAN

SHEET NUMBER

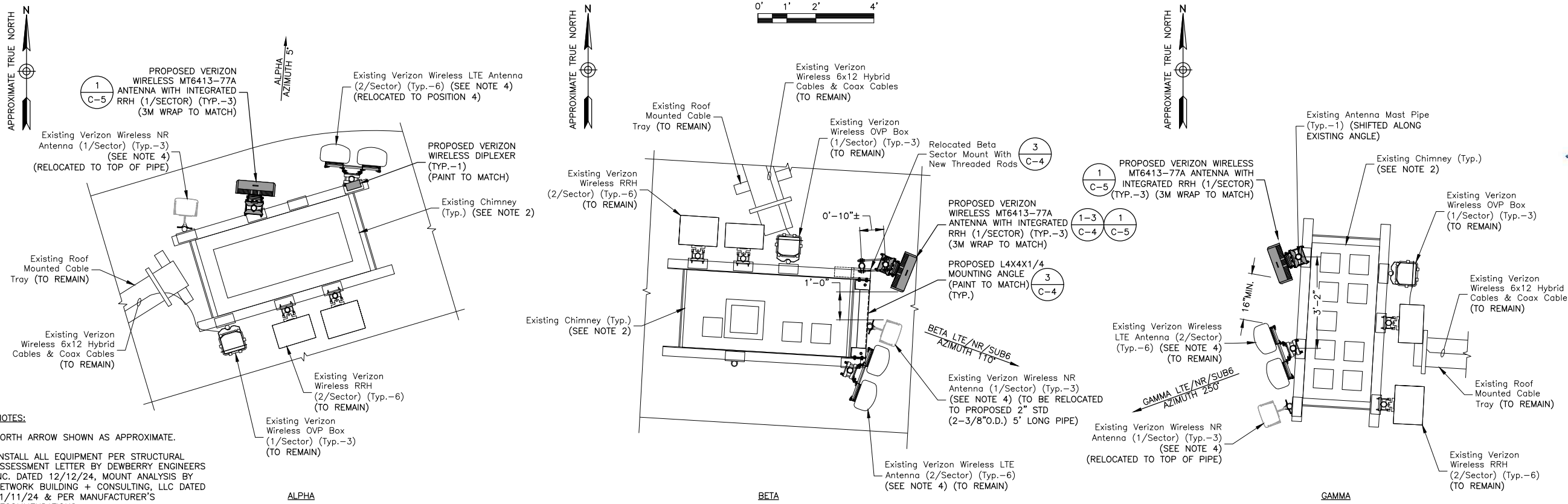
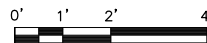
C-1



TOP OF ANTENNAS OR ANTENNA PIPES NOT TO EXCEED TOP OF CHIMNEYS. ALL ANTENNA TIP HEIGHTS TO MATCH. ALL EXISTING AND PROPOSED ANTENNAS TO BE PAINTED OR WRAPPED TO MATCH CHIMNEY COLOR.

EXISTING ANTENNA CONFIGURATION

SCALE: 1/4"=1' FOR 11"x17"
1/2"=1' FOR 22"x34"

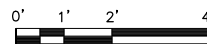


SITE NOTES:

1. NORTH ARROW SHOWN AS APPROXIMATE.
2. INSTALL ALL EQUIPMENT PER STRUCTURAL ASSESSMENT LETTER BY DEWBERRY ENGINEERS INC. DATED 12/12/24, MOUNT ANALYSIS BY NETWORK BUILDING + CONSULTING, LLC DATED 11/11/24 & PER MANUFACTURER'S RECOMMENDATIONS.
3. CONTRACTOR TO INSPECT CONDITIONS OF ALL EXISTING ANCHORS/THREADED RODS FOR SIGNS OF RUST. WHERE RUST IS FOUND REMOVE WITH A WIRE BRUSH, APPLY COLD GALVANIZING COMPOUND TO PROTECT ANCHORS/THREADED RODS FROM CORROSION.
4. EXISTING & PROPOSED ANTENNAS TO BE PAINTED OR WRAPPED TO MATCH EXISTING CHIMNEYS.

PROPOSED ANTENNA CONFIGURATION

SCALE: 1/4"=1' FOR 11"x17"
1/2"=1' FOR 22"x34"



verizon

VERIZON WIRELESS
51 ALDER STREET
MEDWAY, MA 02053

HARVARD SQ 2 MA

CONSTRUCTION DRAWINGS

8	05/09/25	FOR SUBMITTAL
7	01/30/25	FOR SUBMITTAL
6	11/29/22	FOR SUBMITTAL
5	11/01/22	FOR SUBMITTAL
4	09/30/22	FOR SUBMITTAL
3	08/11/22	FOR SUBMITTAL
2	08/05/22	FOR SUBMITTAL
1	05/10/22	FOR SUBMITTAL
0	04/08/22	FOR SUBMITTAL

Dewberry®

Dewberry Engineers Inc.

99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310



DRAWN BY: 05-09-25 JG

REVIEWED BY: CDH

CHECKED BY: BBR

PROJECT NUMBER: 50121487

JOB NUMBER: 50143931

SITE NUMBER

137823

SITE ADDRESS

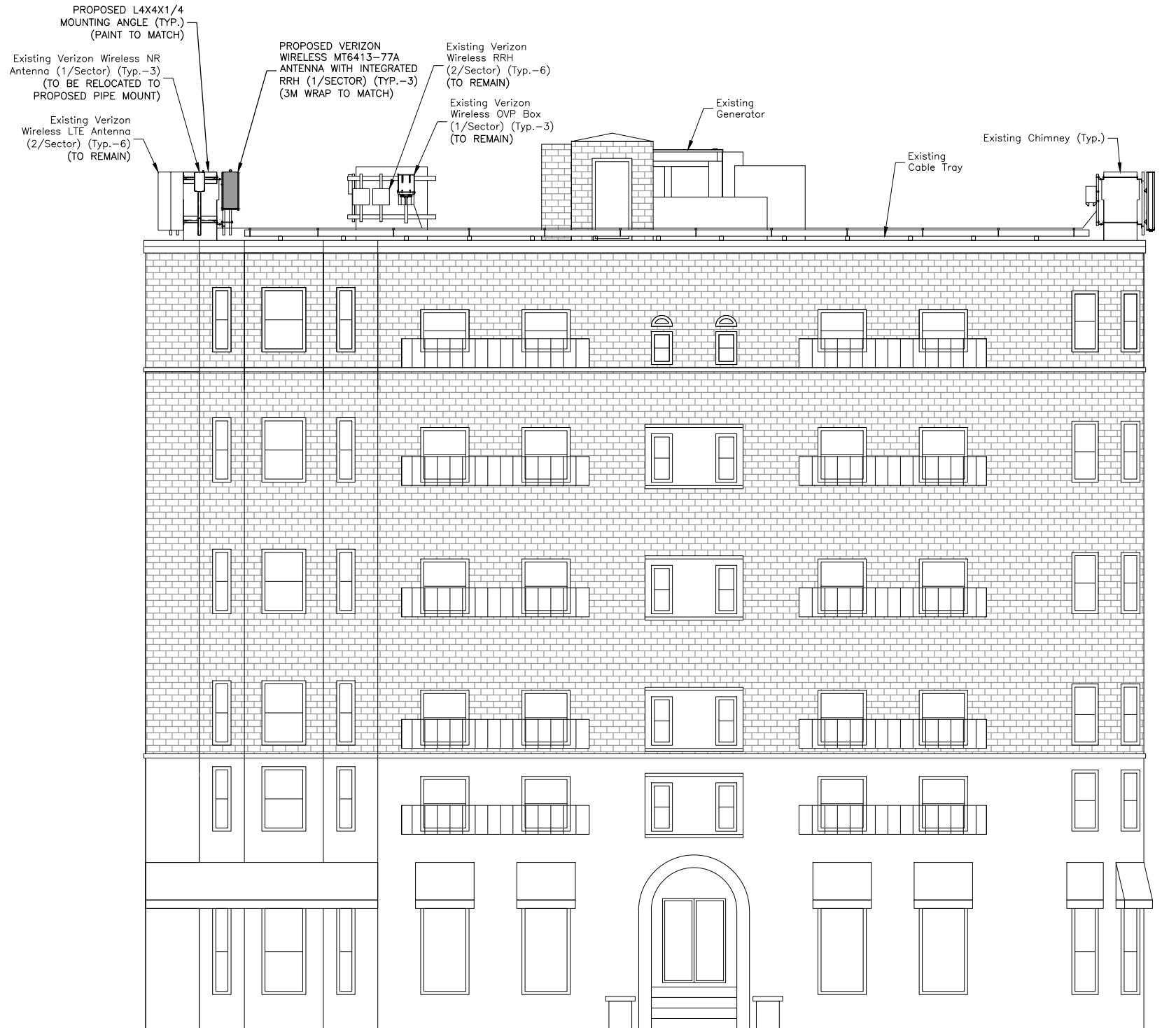
1654 MASSACHUSETTS AVE.
CAMBRIDGE, MA 02138

SHEET TITLE

EXISTING & PROPOSED
ANTENNA CONFIGURATIONS

SHEET NUMBER

C-2



Top Of Existing Penthouse
(Highest Appurtenance)
Elev. = 71.0' A.G.L.

Top Of Existing Chimneys
Elev. = 69.0' A.G.L.

C.L. Of Existing/PROPOSED Verizon Wireless Antenna
NR Elev. = 68.6' A.G.L.
SUB6 ELEV.= 67.8' A.G.L.
Panel Elev. = 67.0' A.G.L.

Existing Roof Level
Elev. = 62.5' A.G.L.

TOP OF ANTENNAS OR ANTENNA PIPES NOT TO EXCEED TOP OF CHIMNEYS. ALL ANTENNA TIP HEIGHTS TO MATCH. ALL EXISTING AND PROPOSED ANTENNAS TO BE PAINTED OR WRAPPED TO MATCH CHIMNEY COLOR.

SITE NOTES:

- ELEVATION SHOWN AS APPROXIMATE.
- INSTALL ALL EQUIPMENT PER STRUCTURAL ASSESSMENT LETTER BY DEWBERRY ENGINEERS INC. DATED 12/12/24, MOUNT ANALYSIS BY NETWORK BUILDING + CONSULTING, LLC DATED 11/11/24 & PER MANUFACTURER'S RECOMMENDATIONS.
- CONTRACTOR TO INSPECT CONDITIONS OF ALL EXISTING ANCHORS/THREADED RODS FOR SIGNS OF RUST. WHERE RUST IS FOUND REMOVE WITH A WIRE BRUSH, APPLY COLD GALVANIZING COMPOUND TO PROTECT ANCHORS/THREADED RODS FROM CORROSION.

EAST ELEVATION

SCALE: 3/32"=1' FOR 11"x17"
3/16"=1' FOR 22"x34"

0' 4' 8' 12'

1



VERIZON WIRELESS
51 ALDER STREET
MEDWAY, MA 02053

HARVARD SQ 2 MA

CONSTRUCTION DRAWINGS

8	05/09/25	FOR SUBMITTAL
7	01/30/25	FOR SUBMITTAL
6	11/29/22	FOR SUBMITTAL
5	11/01/22	FOR SUBMITTAL
4	09/30/22	FOR SUBMITTAL
3	08/11/22	FOR SUBMITTAL
2	08/05/22	FOR SUBMITTAL
1	05/10/22	FOR SUBMITTAL
0	04/08/22	FOR SUBMITTAL



Dewberry Engineers Inc.

99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310



DRAWN BY: 05-09-25 JG

REVIEWED BY: CDH

CHECKED BY: BBR

PROJECT NUMBER: 50121487

JOB NUMBER: 50143931

SITE NUMBER

137823

SITE ADDRESS

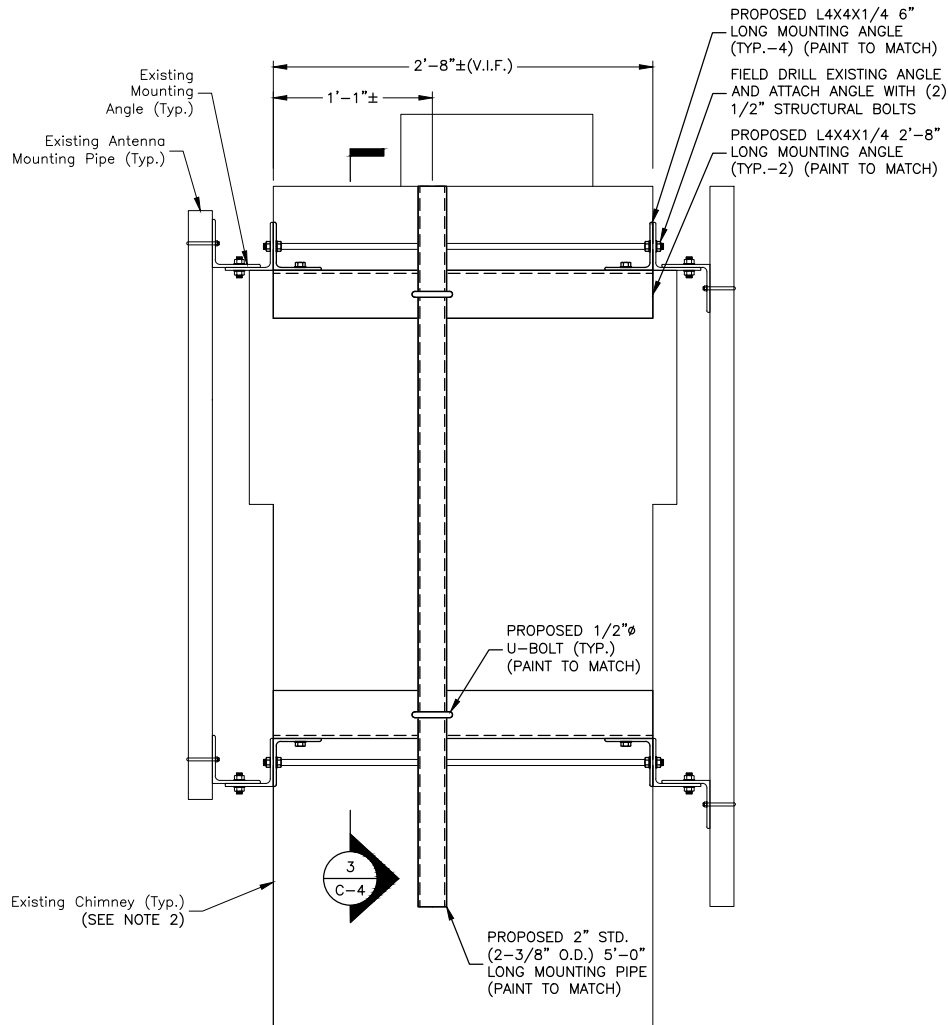
1654 MASSACHUSETTS AVE.
CAMBRIDGE, MA 02138

SHEET TITLE

EAST ELEVATION

SHEET NUMBER

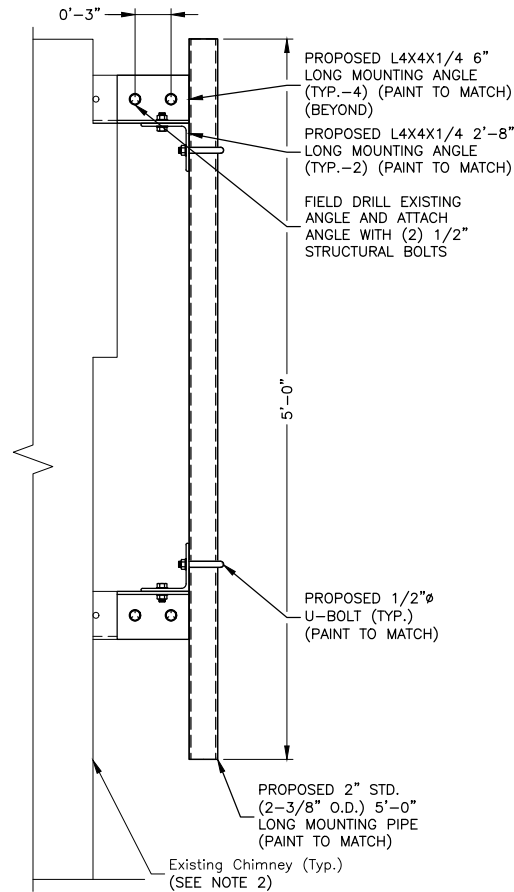
C-3



BETA ELEVATION DETAIL 1

SCALE: 3/4"=1' FOR 11"x17"
1 1/2"=1' FOR 22"x34"

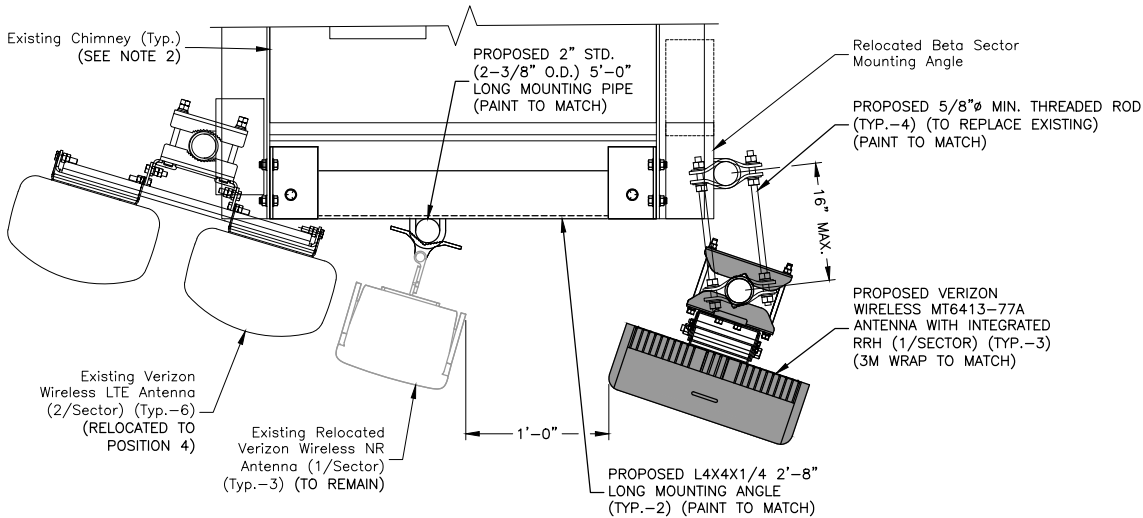
0' 1/2' 1' 1 1/2'



SECTION DETAIL 2

SCALE: 3/4"=1' FOR 11"x17"
1 1/2"=1' FOR 22"x34"

0' 1/2' 1' 1 1/2'



BETA SECTOR PLAN DETAIL 3

SCALE: 3/4"=1' FOR 11"x17"
1 1/2"=1' FOR 22"x34"

0' 1/2' 1' 1 1/2'

- SITE NOTES:**
- NORTH ARROW SHOWN AS APPROXIMATE.
 - INSTALL ALL EQUIPMENT PER STRUCTURAL ASSESSMENT LETTER BY DEWBERRY ENGINEERS INC. DATED 12/12/24, MOUNT ANALYSIS BY NETWORK BUILDING + CONSULTING, LLC DATED 11/11/24 & PER MANUFACTURER'S RECOMMENDATIONS.
 - CONTRACTOR TO INSPECT CONDITIONS OF ALL EXISTING ANCHORS/THREADED RODS FOR SIGNS OF RUST. WHERE RUST IS FOUND REMOVE WITH A WIRE BRUSH, APPLY COLD GALVANIZING COMPOUND TO PROTECT ANCHORS/THREADED RODS FROM CORROSION.

TOP OF ANTENNAS OR ANTENNA PIPES NOT TO EXCEED TOP OF CHIMNEYS. ALL ANTENNA TIP HEIGHTS TO MATCH. ALL EXISTING AND PROPOSED ANTENNAS TO BE PAINTED OR WRAPPED TO MATCH CHIMNEY COLOR.

verizon

VERIZON WIRELESS
51 ALDER STREET
MEDWAY, MA 02053

HARVARD SQ 2 MA

CONSTRUCTION DRAWINGS

8	05/09/25	FOR SUBMITTAL
7	01/30/25	FOR SUBMITTAL
6	11/29/22	FOR SUBMITTAL
5	11/01/22	FOR SUBMITTAL
4	09/30/22	FOR SUBMITTAL
3	08/11/22	FOR SUBMITTAL
2	08/05/22	FOR SUBMITTAL
1	05/10/22	FOR SUBMITTAL
0	04/08/22	FOR SUBMITTAL

Dewberry®

Dewberry Engineers Inc.

99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310



DRAWN BY: 05-09-25 JG

REVIEWED BY: CDH

CHECKED BY: BBR

PROJECT NUMBER: 50121487

JOB NUMBER: 50143931

SITE NUMBER

137823

SITE ADDRESS

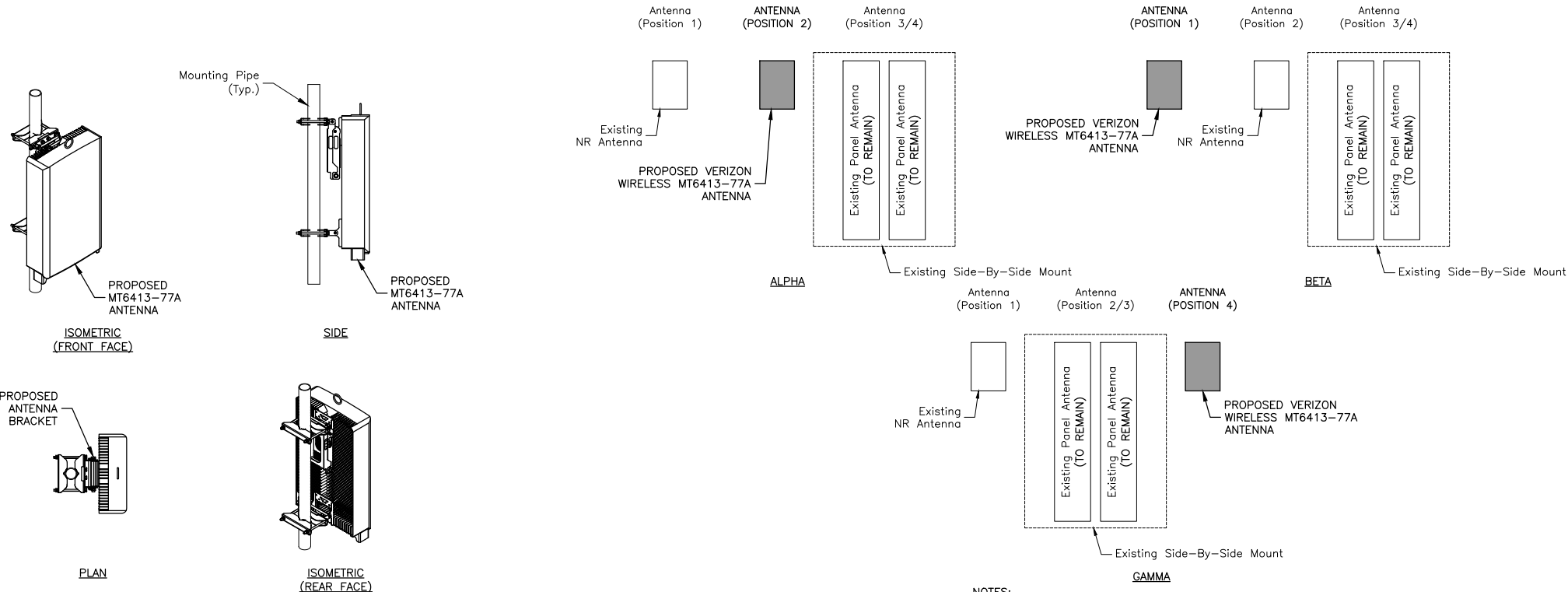
1654 MASSACHUSETTS AVE.
CAMBRIDGE, MA 02138

SHEET TITLE

CONSTRUCTION
DETAILS - I

SHEET NUMBER

C-4

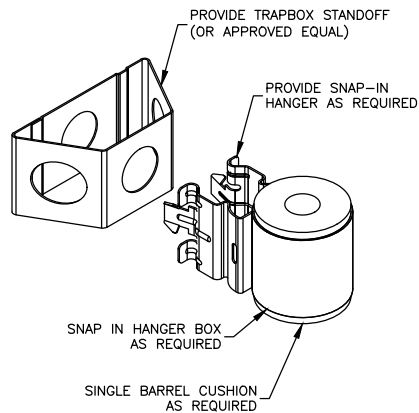


MODEL:	MT6413-77A
DIMENSIONS:	28.90"H X 15.75"W X 5.51"D
WEIGHT:	57.3 LBS

- NOTE:
1. INSTALL ALL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. USE APPROPRIATE MOUNTING HARDWARE FOR CONSTRUCTION TYPE.

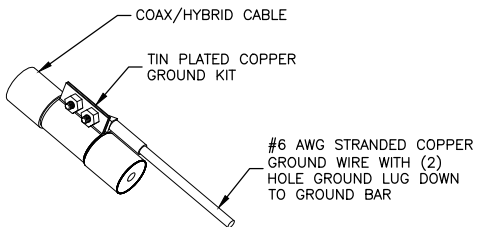
MT6413-77A ANTENNA DETAILS

SCALE: N.T.S.



JUMPER MOUNT

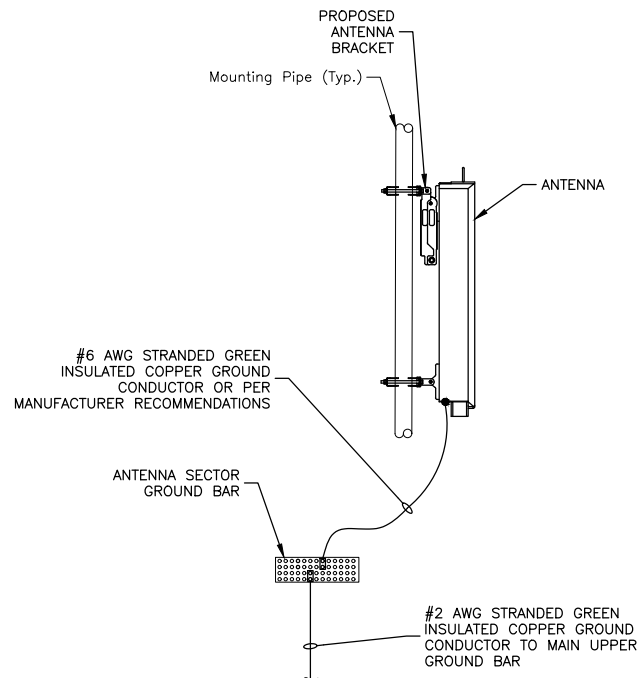
SCALE: N.T.S.



- NOTES:
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND. ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
 2. GROUNDING KIT SHALL BE TIN PLATED COPPER WITH TWO-HOLE LUG, SIZE PER COAX DIAMETER.
 3. WEATHER SEAL GROUND KIT PER CARRIER REQUIREMENTS.
 4. COAX CABLE GROUND KIT LOCATION & QUANTITY SHALL BE PER CARRIER SPECIFICATIONS & STANDARDS.

COAX/HYBRID GROUNDING DETAIL

SCALE: N.T.S.



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

TYPICAL ANTENNA GROUNDING DETAIL

SCALE: N.T.S.

HARVARD SQ 2 MA

CONSTRUCTION DRAWINGS

8	05/09/25	FOR SUBMITTAL
7	01/30/25	FOR SUBMITTAL
6	11/29/22	FOR SUBMITTAL
5	11/01/22	FOR SUBMITTAL
4	09/30/22	FOR SUBMITTAL
3	08/11/22	FOR SUBMITTAL
2	08/05/22	FOR SUBMITTAL
1	05/10/22	FOR SUBMITTAL
0	04/08/22	FOR SUBMITTAL

Dewberry®

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



DRAWN BY: 05-09-25 JG

REVIEWED BY: CDH

CHECKED BY: BBR

PROJECT NUMBER: 50121487

JOB NUMBER: 50143931

SITE NUMBER

137823

SITE ADDRESS

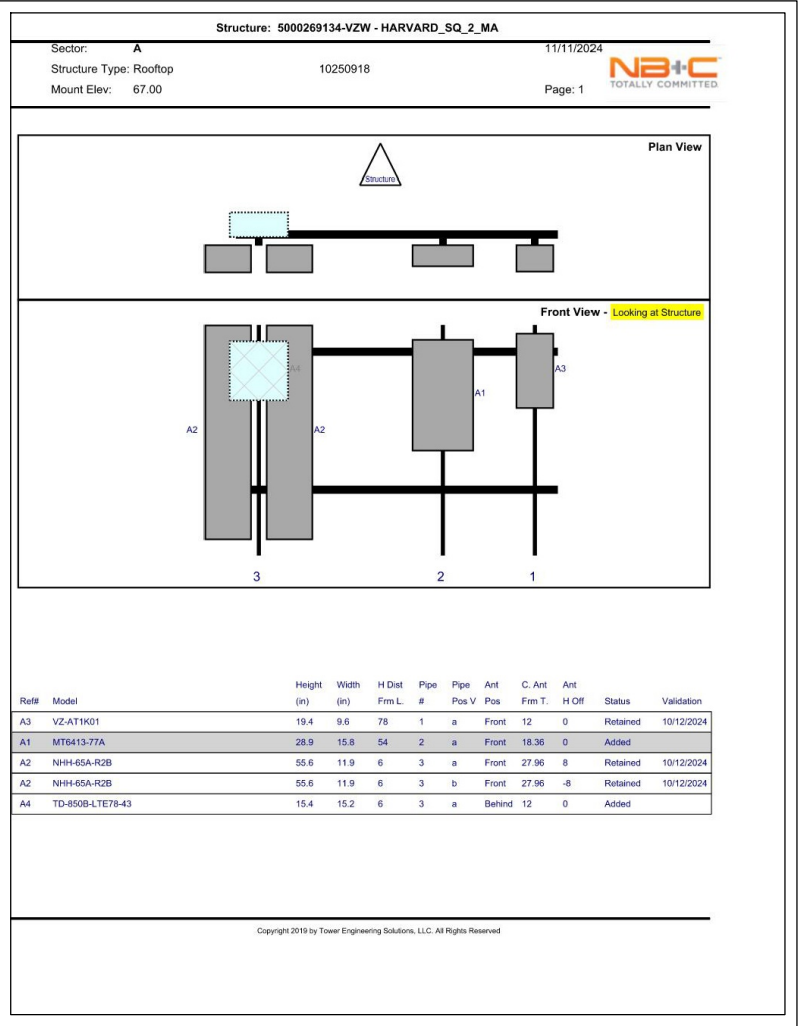
1654 MASSACHUSETTS AVE.
CAMBRIDGE, MA 02138

SHEET TITLE

CONSTRUCTION
DETAILS - II

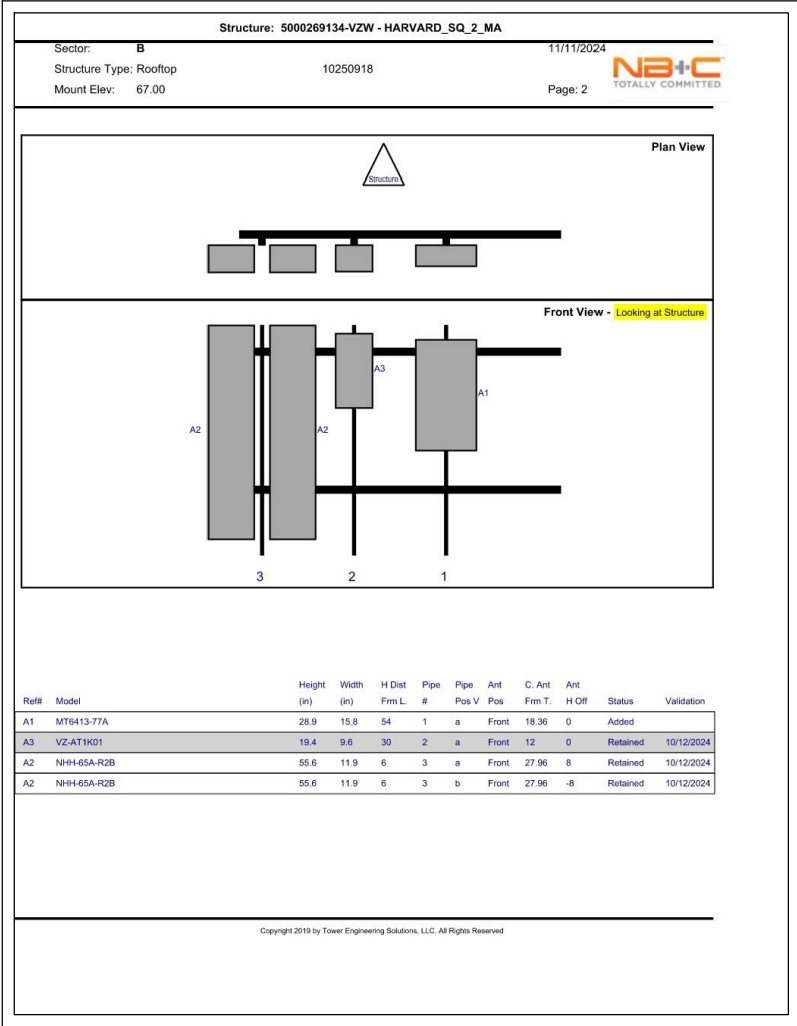
SHEET NUMBER

C-5



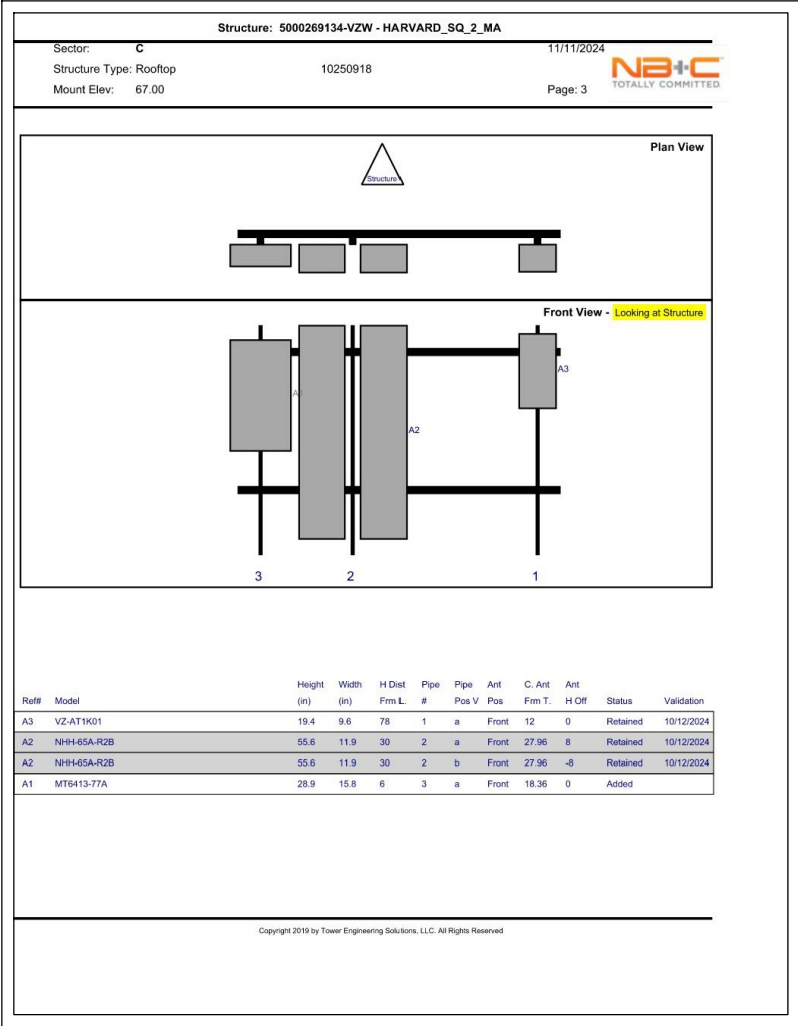
ALPHA SECTOR
SCALE: N.T.S.

1



BETA SECTOR
SCALE: N.T.S.

2



GAMMA SECTOR
SCALE: N.T.S.

3

NOTE:

1. SECTOR PLANS AND ELEVATIONS TAKEN FROM MOUNT ANALYSIS:
SMART TOOL# 10250918, FUZE # 16271978 BY NETWORK
BUILDING + CONSULTING, LLC DATED 11/11/2024.

verizon

VERIZON WIRELESS
51 ALDER STREET
MEDWAY, MA 02053

HARVARD SQ 2 MA

CONSTRUCTION DRAWINGS

8	05/09/25	FOR SUBMITTAL
7	01/30/25	FOR SUBMITTAL
6	11/29/22	FOR SUBMITTAL
5	11/01/22	FOR SUBMITTAL
4	09/30/22	FOR SUBMITTAL
3	08/11/22	FOR SUBMITTAL
2	08/05/22	FOR SUBMITTAL
1	05/10/22	FOR SUBMITTAL
0	04/08/22	FOR SUBMITTAL

Dewberry®

Dewberry Engineers Inc.

99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310



DRAWN BY: 05-09-25 JG

REVIEWED BY: CDH

CHECKED BY: BBR

PROJECT NUMBER: 50121487

JOB NUMBER: 50143931

SITE NUMBER

137823

SITE ADDRESS

1654 MASSACHUSETTS AVE.
CAMBRIDGE, MA 02138

SHEET TITLE

SMART TOOL SECTOR PLANS
& ELEVATION DETAILS

SHEET NUMBER

C-6

HARVARD SQ 2 MA

CONSTRUCTION DRAWINGS

8	05/09/25	FOR SUBMITTAL
7	01/30/25	FOR SUBMITTAL
6	11/29/22	FOR SUBMITTAL
5	11/01/22	FOR SUBMITTAL
4	09/30/22	FOR SUBMITTAL
3	08/11/22	FOR SUBMITTAL
2	08/05/22	FOR SUBMITTAL
1	05/10/22	FOR SUBMITTAL
0	04/08/22	FOR SUBMITTAL



Dewberry Engineers Inc.

99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310



DRAWN BY: 05-09-25 JG

REVIEWED BY: CDH

CHECKED BY: BBR

PROJECT NUMBER: 50121487

JOB NUMBER: 50143931

SITE NUMBER

137823

SITE ADDRESS

1654 MASSACHUSETTS AVE.
CAMBRIDGE, MA 02138

SHEET TITLE

FINAL EQUIPMENT
CONFIGURATION

SHEET NUMBER

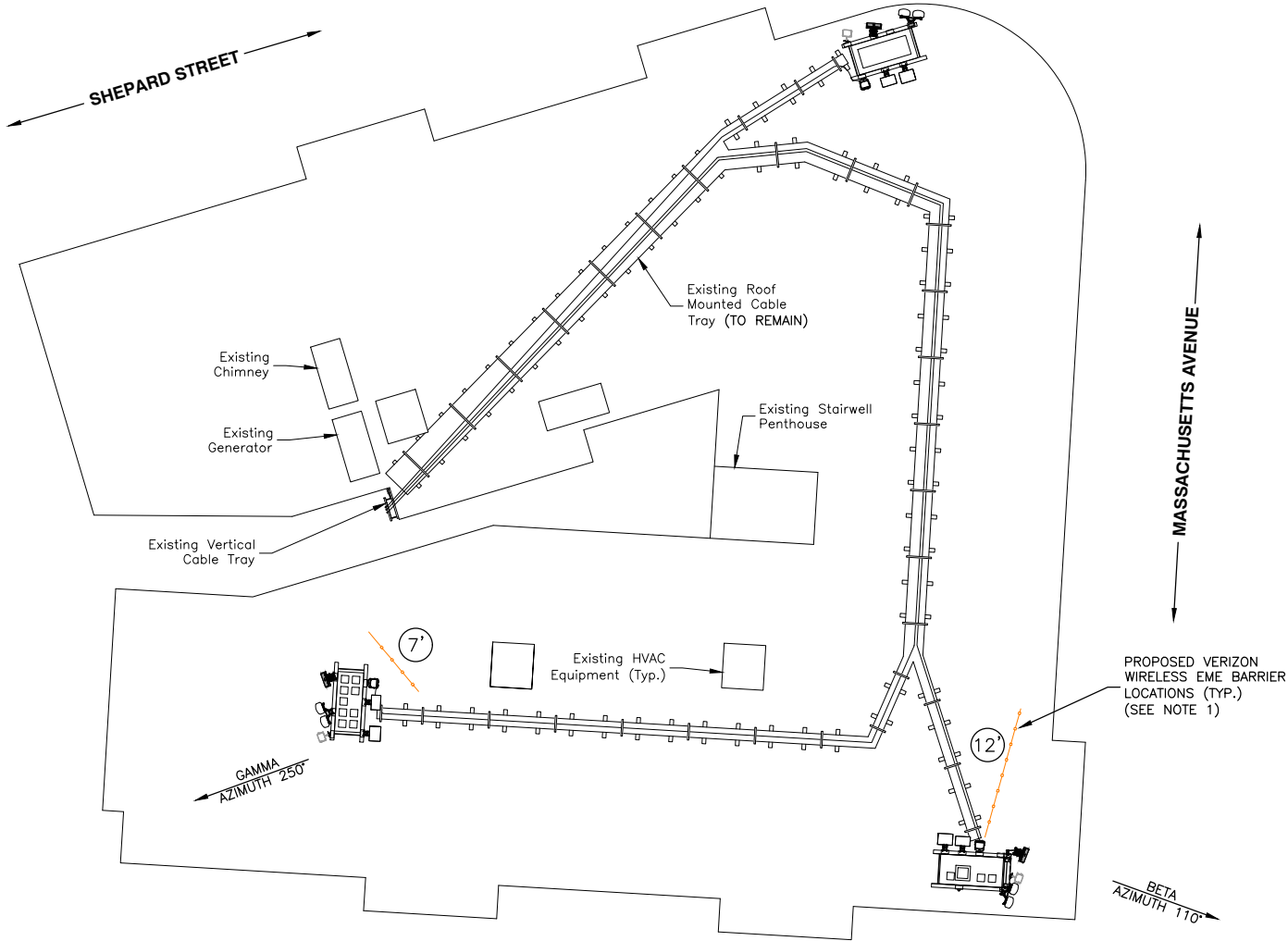
C-7

FINAL EQUIPMENT CONFIGURATION											
SECTOR	POSITION	TECHNOLOGY	ANTENNA MODEL	VENDOR	RRH (QTY./MODEL)	COMBINER (QTY./MODEL)	CENTERLINE	AZIMUTH	OVP	HYBRID CABLE TYPE	FEED LINE LENGTH*
ALPHA	A1	5G	(E) VZ-AT1K01	SAMSUNG	-	-	68.6'±	5°	(1) (E) OVP BOX TO REMAIN	(1) (E) 6X12 HYBRID CABLE TO REMAIN	225'±
	A2	5G	(P) MT6413-77A	SAMSUNG	-	-	67.8'±	5°			
	A3	LTE 700/850	(E) NHH-65A-R2B	COMMSCOPE	(1) (E) B5/B13 RFV01U-D2A	(1) (P) TD-850B-LTE78-43	67.0'±	5°			
	A4	LTE 1900/AWS	(E) NHH-65A-R2B	COMMSCOPE	(1) (E) B2/B66A RFV01U-D1A	-	67.0'±	5°			
BETA	B1	5G	(P) MT6413-77A	SAMSUNG	-	-	67.8'±	110°	(1) (E) OVP BOX TO REMAIN	(1) (E) 6X12 HYBRID CABLE TO REMAIN	295'±
	B2	5G	(E) VZ-AT1K01	SAMSUNG	-	-	68.6'±	110°			
	B3	LTE 700/850	(E) NHH-65A-R2B	COMMSCOPE	(1) (E) B5/B13 RFV01U-D2A	-	67.0'±	110°			
	B4	LTE 1900/AWS	(E) NHH-65A-R2B	COMMSCOPE	(1) (E) B2/B66A RFV01U-D1A	-	67.0'±	110°			
GAMMA	G1	5G	(E) VZ-AT1K01	SAMSUNG	-	-	68.6'±	250°	(1) (E) OVP BOX TO REMAIN	(1) (E) 6X12 HYBRID CABLE TO REMAIN	340'±
	G2	LTE 700/850	(E) NHH-65A-R2B	COMMSCOPE	(1) (E) B5/B13 RFV01U-D2A	-	67.0'±	250°			
	G3	LTE 1900/AWS	(E) NHH-65A-R2B	COMMSCOPE	(1) (E) B2/B66A RFV01U-D1A	-	67.0'±	250°			
	G4	5G	(P) MT6413-77A	SAMSUNG	-	-	67.8'±	250°			
*CONTRACTOR TO FIELD VERIFY HYBRID CABLE LENGTHS PRIOR TO CONSTRUCTION. LENGTH IS ESTIMATED FROM THE BASE EQUIPMENT OVP TO SECTOR OVP WITH 15% BUFFER. THERE ARE NO PROPOSED HYBRID CABLES AS PART OF THIS SCOPE OF WORK.											
(E) = Existing (P) = PROPOSED											

FINAL EQUIPMENT CONFIGURATION

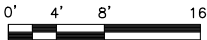
SCALE: N.T.S.

1



ROOF PLAN

SCALE: 1/16"=1' FOR 11"x17"
1/8"=1' FOR 22"x34"



1

LEGEND

(X') = PROPOSED EME BARRIER LENGTH (FT)

--- = PROPOSED EME BARRIER LOCATION

NOTE:

1. APPROXIMATE BARRIER LOCATIONS BASED ON "RADIO FREQUENCY - ELECTROMAGNETIC ENERGY (RF-EME) SITE COMPLIANCE REPORT" SITE NAME HARVARD SQ 2 MA BY VERIZON DATED 03/28/25. SEE FULL REPORT FOR SIGNAGE AND BARRIER DETAILS.



VERIZON WIRELESS
51 ALDER STREET
MEDWAY, MA 02053

HARVARD SQ 2 MA

CONSTRUCTION DRAWINGS

8	05/09/25	FOR SUBMITTAL
7	01/30/25	FOR SUBMITTAL
6	11/29/22	FOR SUBMITTAL
5	11/01/22	FOR SUBMITTAL
4	09/30/22	FOR SUBMITTAL
3	08/11/22	FOR SUBMITTAL
2	08/05/22	FOR SUBMITTAL
1	05/10/22	FOR SUBMITTAL
0	04/08/22	FOR SUBMITTAL



Dewberry Engineers Inc.

99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310



DRAWN BY: 05-09-25 JG

REVIEWED BY: CDH

CHECKED BY: BBR

PROJECT NUMBER: 50121487

JOB NUMBER: 50143931

SITE NUMBER

137823

SITE ADDRESS

1654 MASSACHUSETTS AVE.
CAMBRIDGE, MA 02138

SHEET TITLE

EME BARRIER PLAN

SHEET NUMBER

RF-1

**Prepared for:
Verizon Wireless
Site Name:
1654 Massachusetts Ave.
Boston, MA 02115**



Simulations Based On Rev-8 Construction Drawings By Dewberry.
Photos Taken On: 05/23/25



Harvard SQ 2 MA
1654 Massachusetts Ave.
Cambridge, MA 02138
(Page 2 of 10)



Existing View



Harvard SQ 2 MA

Photo 1A
View Facing Northwest From Massachusetts Avenue
(Page 3 of 10)



Proposed View

Relocated Beta Sector NR Antenna

Proposed Beta Sector MT6413-77A
Antenna With integrated RRH
(3M Wrap To Match)

Proposed EME Barrier



Harvard SQ 2 MA

Photo 1B
View Facing Northwest From Massachusetts Avenue
(Page 4 of 10)



Existing View

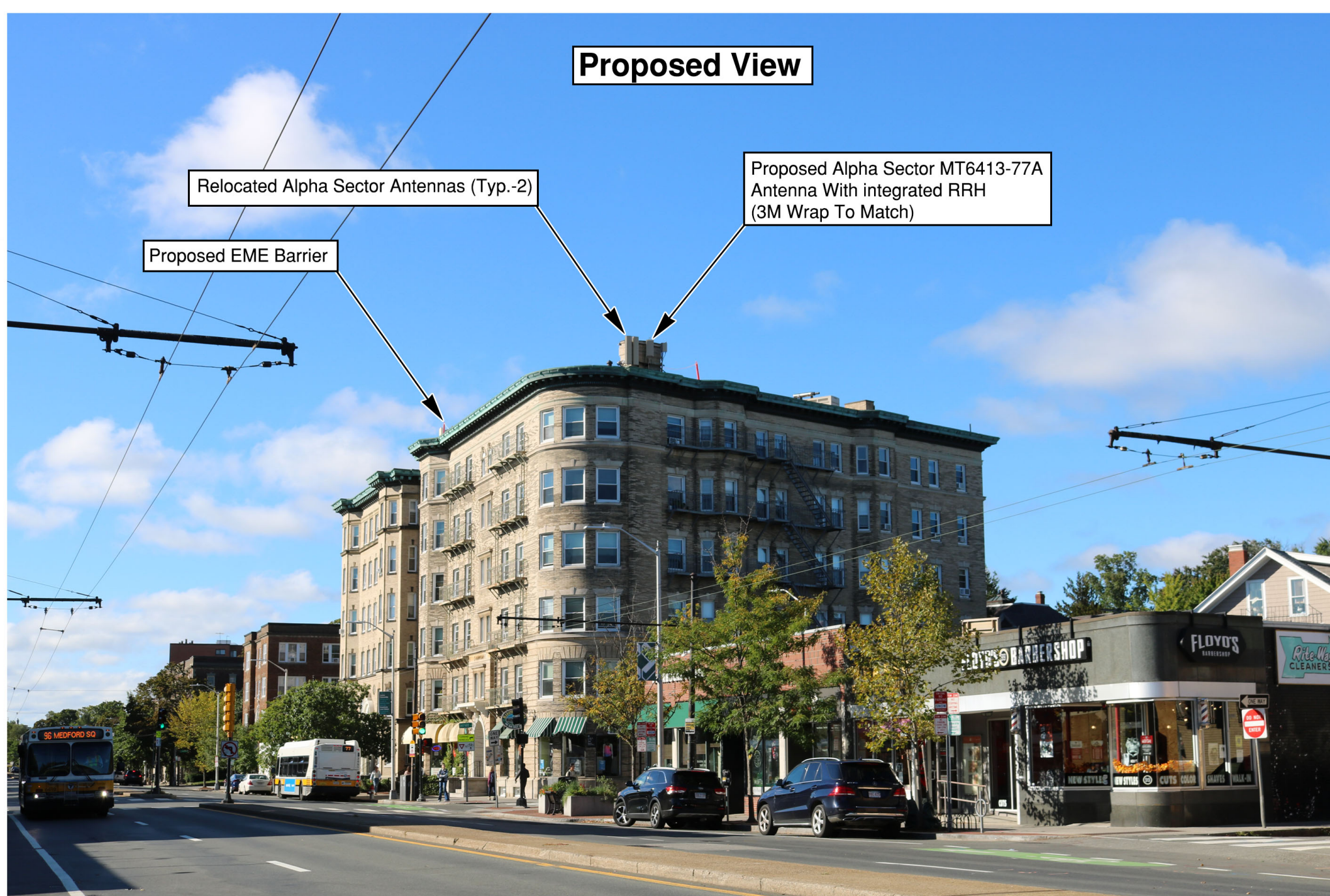


Proposed View

Relocated Alpha Sector Antennas (Typ.-2)

Proposed Alpha Sector MT6413-77A
Antenna With integrated RRH
(3M Wrap To Match)

Proposed EME Barrier



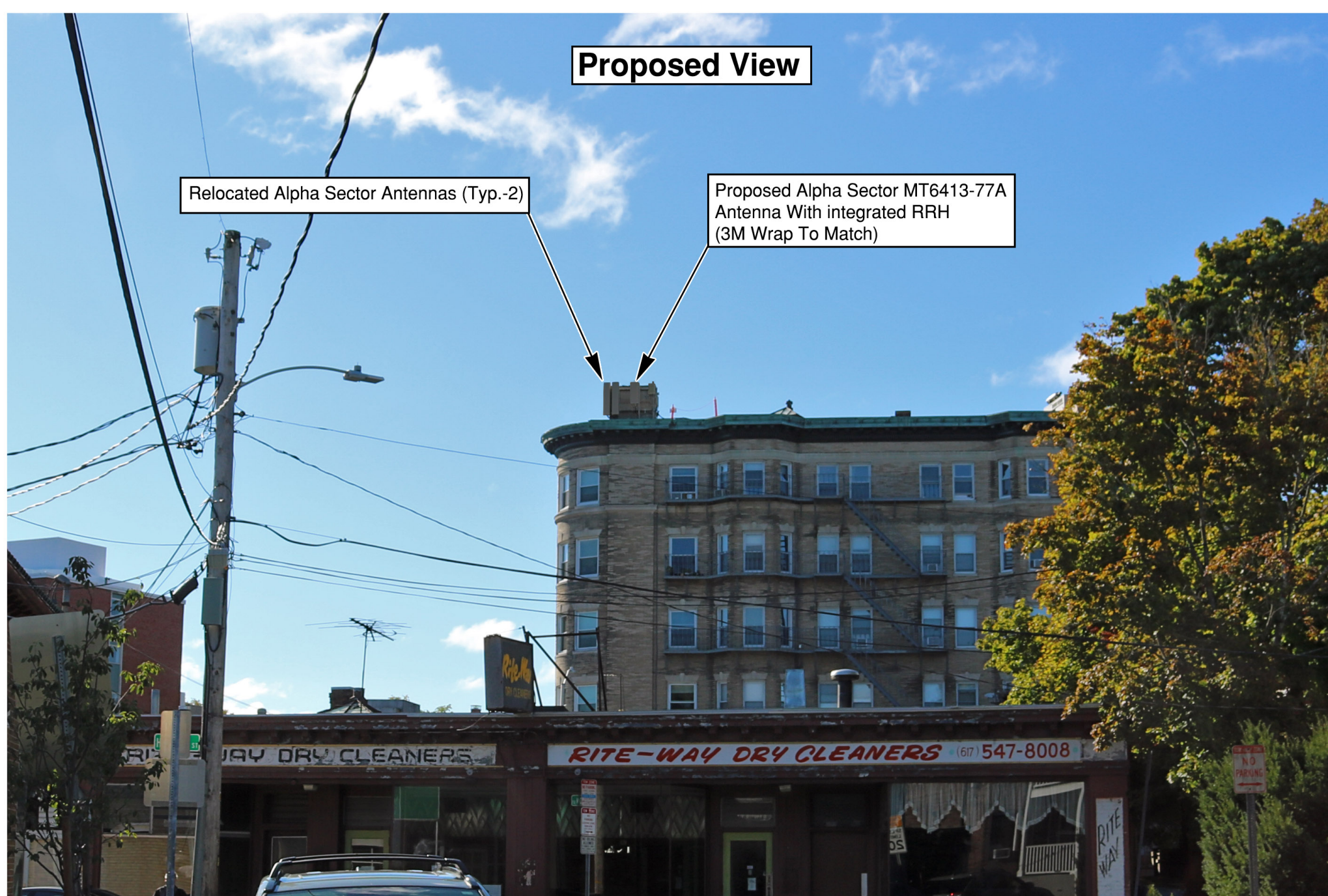
Existing View



Proposed View

Relocated Alpha Sector Antennas (Typ.-2)

Proposed Alpha Sector MT6413-77A
Antenna With integrated RRH
(3M Wrap To Match)



Harvard SQ 2 MA

Photo 3B
View Facing South From Bowdoin Street
(Page 8 of 10)



Existing View



Harvard SQ 2 MA

Photo 4A

View Facing Northeast From Rutland Street

(Page 9 of 10)



Proposed View

Proposed Gamma Sector MT6413-77A
Antenna With integrated RRH
(3M Wrap To Match)



Harvard SQ 2 MA


Photo 4B

View Facing Northeast From Rutland Street

(Page 10 of 10)

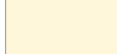
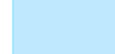





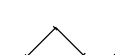






City of Cambridge
Assessing Department

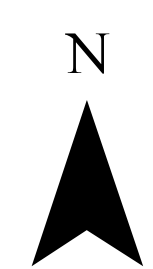
795 Massachusetts Ave.
Cambridge, MA 02139

	Buildings		Water
	Lot Line		Sub-Parcel Line
	Block Line		Easement
	City Boundary		Railway

10	Lot Number	100	Parcel size in Sq. Ft.
173	Block Number	44.0LC	Land Court Dimension
10 Cam	Street Number	65.0	Survey Dimensions
(125.0)	Deed Dimension		

DISCLAIMER:
All Real Property shown on this map was compiled from existing Assessor's Tax Maps dated 1920 to 2021 and maintained by the City Assessor's Office and the Department of Public Works. Subsequent maintenance has been completed using the City of Cambridge Geographic Information System (GIS). Parcels have not been created from survey, and map is suitable for assessing purposes only.


The City of Cambridge assumes no legal responsibility for information shown on this map.



N

0 15 30 60 Feet

1 inch = 35 feet



Parcel Block Map

173



100 feet Abutters List Report

Cambridge, MA

April 24, 2025

Subject Property:

Parcel Number: 173-48
CAMA Number: 173-48
Property Address: 1654 Massachusetts Ave

Mailing Address: Miller, Tucker Reed John Kurt Miller
C/O Charlesgate Property Management 867
Boylston St 3Rd Floor
Boston, MA 02116

Abutters:

Parcel Number: 156-26
CAMA Number: 156-26
Property Address: 1637-1653 Massachusetts Ave

Mailing Address: President & Fellows Of Harvard College
C/O Harvard Real Estate, Inc.
Holyoke Center, Room 1017 1350 Mass.
Ave.
Cambridge, MA 02138

Parcel Number: 156-26
CAMA Number: 156-26
Property Address: 1637-1653 Massachusetts Ave

Mailing Address: President & Fellows Of Harvard College
C/O Harvard Real Estate, Inc.
Holyoke Center, Room 1017 1350 Mass.
Ave.
Cambridge, MA 02138

Parcel Number: 156-26
CAMA Number: 156-26
Property Address: 1637-1653 Massachusetts Ave

Mailing Address: President & Fellows Of Harvard College
C/O Harvard Real Estate, Inc.
Holyoke Center, Room 1017 1350 Mass.
Ave.
Cambridge, MA 02138

Parcel Number: 156-26
CAMA Number: 156-26
Property Address: 1637-1653 Massachusetts Ave

Mailing Address: President & Fellows Of Harvard College
C/O Harvard Real Estate, Inc.
Holyoke Center, Room 1017 1350 Mass.
Ave.
Cambridge, MA 02138

Parcel Number: 173-29
CAMA Number: 173-29-1
Property Address: 8 Shepard St #1 Unit 1

Mailing Address: Simpson, Anita Rae Trs The Anita Rae
Simpson Living Tr
8 Shepard St Unit 1
Cambridge, MA 02138

Parcel Number: 173-29
CAMA Number: 173-29-2
Property Address: 6 Shepard St #2

Mailing Address: Whelan, Patricia Marie
6 Shepard St Unit 2
Cambridge, MA 02138-1712

Parcel Number: 173-29
CAMA Number: 173-29-3
Property Address: 8 Shepard St #3

Mailing Address: Aranboldi, Nicole S Trs Nicole S Arnaboldi
2010 Irrevocable Tr
8 Shepard St Unit 3
Cambridge, MA 02138

Parcel Number: 173-29
CAMA Number: 173-29-4
Property Address: 6 Shepard St #4 Unit 4

Mailing Address: Schwartzburg, Mary A
6-8 Shepard St Unit 4
Cambridge, MA 02139

Parcel Number: 173-29
CAMA Number: 173-29-5
Property Address: 6-8 Shepard St #5 Unit 5

Mailing Address: Hunt, Melissa & Garth Isaak Hunt-Isaak,
Ian Et Al
6-8 Shepard St Unit 5
Cambridge, MA 02138



www.cai-tech.com

Data shown on this report is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this report.

4/24/2025

Page 1 of 3



100 feet Abutters List Report

Cambridge, MA

April 24, 2025

Parcel Number: 173-29
CAMA Number: 173-29-6
Property Address: 6-8 Shepard St #6

Mailing Address: Moulton, Margaret M. & Peter F. Moulton
6-8 Shepard St Unit 6
Cambridge, MA 02138

Parcel Number: 173-30
CAMA Number: 173-30
Property Address: 4 Shepard St

Mailing Address: Bass, Steedman L Trs
4 Shepard St
Cambridge, MA 02138

Parcel Number: 173-37
CAMA Number: 173-37
Property Address: 9 Rutland St

Mailing Address: Moore, Gordon T., Charlotte B. Moore
9 Rutland St
Cambridge, MA 02138

Parcel Number: 173-38
CAMA Number: 173-38-5/1
Property Address: 5-7 Rutland St #5/1

Mailing Address: Rutter, John A. & Kathleen Hunter Rutter
5-7 Rutland St Unit 5/1
Cambridge, MA 02139

Parcel Number: 173-38
CAMA Number: 173-38-7/1
Property Address: 5-7 Rutland St #7/1

Mailing Address: Putrih, Tobias & Mojca Skoberne
5-7 Rutland St Unit 7/1
Cambridge, MA 02139

Parcel Number: 173-38
CAMA Number: 173-38-7/2
Property Address: 5-7 Rutland St #7/2 Unit 7-2

Mailing Address: Howe Willa
5-7 Rutland St Unit 7-2
Cambridge, MA 02138

Parcel Number: 173-65
CAMA Number: 173-65
Property Address: 1642 Massachusetts Ave

Mailing Address: Tabit, Salim, Nancy C Tabit & Eddy Tabit
Trustees The Tabit Family 2010 Irrev Tru
1804 Dogwood Circle
North Andover, MA 01845

Parcel Number: 173-67
CAMA Number: 173-67
Property Address: 1-3 Langdon St

Mailing Address: John Harvard Llc, C/O Chestnut Hill Realty
Corp
P.O Bx 396
Chestnut Hill, MA 02467

Parcel Number: 173-75
CAMA Number: 173-75
Property Address: 1640 Massachusetts Ave

Mailing Address: Mass 1640 Llc
1640 Massachusetts Ave
Cambridge, MA 02138

Parcel Number: 174-37
CAMA Number: 174-37
Property Address: 1664-1668 Massachusetts Ave

Mailing Address: Stone Investment Holding Llc,
9 Shepard St.
Cambridge, MA 02138

Parcel Number: 174-41
CAMA Number: 174-41
Property Address: 11 Shepard St

Mailing Address: Wu, Mark & Yvonne P. Hao
11 Shepard St
Cambridge, MA 02138

Parcel Number: 174-70
CAMA Number: 174-70-1
Property Address: 3 Shepard St #1

Mailing Address: Lee, Shirley Y. & Frank S. Lee., Trustes
Frank S. Lee & Shirley Y. Lee Family Tr.
3 Shepard St Unit 1
Cambridge, MA 02139



www.cai-tech.com

Data shown on this report is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this report.

4/24/2025

Page 2 of 3



100 feet Abutters List Report

Cambridge, MA

April 24, 2025

Parcel Number: 174-70
CAMA Number: 174-70-2
Property Address: 3 Shepard St #2 Unit 2

Mailing Address: Welch, Mary Tuck
3-5 Shepard St Unit 2
Cambridge, MA 02138

Parcel Number: 174-70
CAMA Number: 174-70-3
Property Address: 3 Shepard St #3

Mailing Address: Zucker, Deborah
3 Shepard St #3
Cambridge, MA 02138

Parcel Number: 174-70
CAMA Number: 174-70-4
Property Address: 3 Shepard St #4 Unit 4

Mailing Address: Rager, Clare S Trs Kyle M Rager Trs
5 Shepard St Unit 4
Cambridge, MA 02138

Parcel Number: 174-70
CAMA Number: 174-70-5
Property Address: 3 Shepard St #5

Mailing Address: Mettler, Bernard
2120 Keywood Parkway
Minneapolis, MN 55405

Parcel Number: 174-78
CAMA Number: 174-78
Property Address: 7 Shepard St

Mailing Address: Gant, Alison
7 Shepard St
Cambridge, MA 02138

Parcel Number: 174-79
CAMA Number: 174-79
Property Address: 9 Shepard St

Mailing Address: Stone Investment Holding Llc,
9 Shepard St
Cambridge, MA 02138



www.cai-tech.com

Data shown on this report is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this report.

4/24/2025

Page 3 of 3

NUS:mem 10/16/72

569 1/2 RE 198

~~DUPPLICATE~~

7 19-

KNOW ALL MEN BY THESE PRESENTS

That CHARLES JACKSON, JR., EARLE W. CARR and TUCKER REED MILLER, as Executors of the will of Clifford V. Miller, late of Newton in the County of Middlesex and Commonwealth of Massachusetts (Middlesex Probate No. 438335), for a nominal consideration paid, grant to EARLE W. CARR, TUCKER REED MILLER and JOHN KURT MILLER, of Clifford V. Miller, Inc., 1394 Beacon Street, Brookline, Massachusetts, as they are Trustees under Article 5, Paragraph B of the will of Clifford V. Miller, a one-half undivided interest in a certain parcel of land with the buildings thereon situated in Cambridge, Middlesex County, Massachusetts, now known as and numbered 1648 and 1654 Massachusetts Avenue, comprising Lots A and B on W. A. Mason & Son's Plan dated July, 1920, recorded with Middlesex South District Deeds in Plan Book 286, Plan 40, bounded and described as follows:

NORTHERLY by Shepard Street, ninety-nine and 52/100 (99.52) feet;

NORTHEASTERLY by the curved corner of Shepard Street and Massachusetts Avenue thirty-three and 32/100 (33.32) feet;

EASTERLY by Massachusetts Avenue, one hundred fifty-eight and 10/100 (158.10) feet;

SOUTHERLY by land now or late of Elizabeth P. Huntington by two lines measuring sixty-five and 33/100 (65.33) feet and forty-six (46) feet respectively;

WESTERLY by land now or late of Caroline E. Wyeth and now or late of Alexander F. Lalond fifty-six and 47/100 (56.47) feet;

NORTHERLY by land now or late of Alta M. Erickson fifty and 57/100 (50.57) feet; and

WESTERLY again by the same by a slightly broken line, in all ninety-one and 14/100 (91.14) feet.

Containing 17,579 square feet, all as shown on said plan, be all

or any of said measurements more or less or however otherwise said premises may be bounded, measured or described, and being the same premises conveyed to the grantors by deed of Dunvegan Corporation dated August 28, 1970 and recorded with said Deeds, Book 11883, Page 26.

The consideration for this conveyance being less than One Hundred Dollars (\$100.00), no revenue stamps are required by law to be affixed hereto.

Executed under seal this 29th day of December 1972.

Executors
as
Aforesaid

Charles Jackson, Jr.
(Charles Jackson, Jr.)
Earle W. Carr
(Earle W. Carr)
Tucker Reed Miller
(Tucker Reed Miller)

COMMONWEALTH OF MASSACHUSETTS

Suffolk, ss.

Dec. 29, 1972

Then personally appeared the above-named Charles Jackson, Jr., and acknowledged the foregoing instrument to be his free act and deed as Executor as aforesaid, before me

Nicholas U. Summerfield
Notary Public
My Commission expires
NICHOLAS U. SUMMERFIELD
MY COMMISSION EXPIRES APRIL 8, 1976



REFERENCE COPY

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

**Federal Communications Commission
Wireless Telecommunications Bureau****RADIO STATION AUTHORIZATION****LICENSEE: CELLCO PARTNERSHIP**

ATTN: REGULATORY
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE ENGINEERING
ALPHARETTA, GA 30022

Call Sign	File Number
WRBA936	
Radio Service	
UU - Upper Microwave Flexible Use Service	

FCC Registration Number (FRN): 0003290673

Grant Date 09-11-2018	Effective Date 02-27-2019	Expiration Date 10-06-2028	Print Date
Market Number BTA051	Channel Block L1	Sub-Market Designator 1	
Market Name Boston, MA			
1st Build-out Date 06-01-2024	2nd Build-out Date	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

Special Condition for AU/name change (6/4/2016): Grant of the request to update licensee name is conditioned on it not reflecting an assignment or transfer of control (see Rule 1.948); if an assignment or transfer occurred without proper notification or FCC approval, the grant is void and the station is licensed under the prior name.

Conditions:

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

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

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WRBA936

File Number:

Print Date:

700 MHz Relicensed Area Information:

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

REFERENCE COPY

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

**Federal Communications Commission**
Wireless Telecommunications Bureau**RADIO STATION AUTHORIZATION**

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE ENGINEERING
ALPHARETTA, GA 30022

Call Sign	File Number
WRBA937	
Radio Service	
UU - Upper Microwave Flexible Use Service	

FCC Registration Number (FRN): 0003290673

Grant Date 09-11-2018	Effective Date 02-27-2019	Expiration Date 10-06-2028	Print Date
Market Number BTA051	Channel Block L2	Sub-Market Designator 1	
Market Name Boston, MA			
1st Build-out Date 06-01-2024	2nd Build-out Date	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

Special Condition for AU/name change (6/4/2016): Grant of the request to update licensee name is conditioned on it not reflecting an assignment or transfer of control (see Rule 1.948); if an assignment or transfer occurred without proper notification or FCC approval, the grant is void and the station is licensed under the prior name.

Conditions:

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

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

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WRBA937

File Number:

Print Date:

700 MHz Relicensed Area Information:

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

REFERENCE COPY

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

**Federal Communications Commission
Wireless Telecommunications Bureau****RADIO STATION AUTHORIZATION**

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Call Sign	File Number
WQJQ689	
Radio Service	
WU - 700 MHz Upper Band (Block C)	

FCC Registration Number (FRN): 0003290673

Grant Date 09-11-2019	Effective Date 07-15-2020	Expiration Date 06-13-2029	Print Date
Market Number REA001	Channel Block C	Sub-Market Designator 0	
Market Name Northeast			
1st Build-out Date 06-13-2013	2nd Build-out Date 06-13-2019	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

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

This authorization is conditioned upon compliance with section 27.16 of the Commission's rules

Conditions:

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

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

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQJQ689

File Number:

Print Date:

700 MHz Relicensed Area Information:

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

REFERENCE COPY

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



Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Call Sign WQGB266	File Number 0009783855
Radio Service AW - AWS (1710-1755 MHz and 2110-2155 MHz)	

FCC Registration Number (FRN): 0003290673

Grant Date 02-10-2022	Effective Date 02-10-2022	Expiration Date 11-29-2036	Print Date 02-11-2022
Market Number CMA006	Channel Block A	Sub-Market Designator 0	
Market Name Boston-Lowell-Brockton-Lawrenc			
1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

This authorization is conditioned upon the licensee, prior to initiating operations from any base or fixed station, making reasonable efforts to coordinate frequency usage with known co-channel and adjacent channel incumbent federal users operating in the 1710-1755 MHz band whose facilities could be affected by the proposed operations. See, e.g., FCC and NTIA Coordination Procedures in the 1710-1755 MHz Band, Public Notice, FCC 06-50, WTB Docket No. 02-353, rel. April 20, 2006.

Conditions:

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

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

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQGB266

File Number: 0009783855

Print Date: 02-11-2022

The license is subject to compliance with the provisions of the January 12, 2001 Agreement between Deutsche Telekom AG, VoiceStream Wireless Corporation, VoiceStream Wireless Holding Corporation and the Department of Justice (DOJ) and the Federal Bureau of Investigation (FBI), which addresses national security, law enforcement, and public safety issues of the FBI and the DOJ regarding the authority granted by this license. Nothing in the Agreement is intended to limit any obligation imposed by Federal law or regulation including, but not limited to, 47 U.S.C. Section 222(a) and (c)(1) and the FCC's implementing regulations. The Agreement is published at VoiceStream-DT Order, IB Docket No. 00-187, FCC 01-142, 16 FCC Rcd 9779, 9853 (2001).

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQGB266

File Number: 0009783855

Print Date: 02-11-2022

700 MHz Relicensed Area Information:

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

REFERENCE COPY

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



Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Call Sign WQGA900	File Number 0009773233
Radio Service AW - AWS (1710-1755 MHz and 2110-2155 MHz)	

FCC Registration Number (FRN): 0003290673

Grant Date 01-11-2022	Effective Date 01-11-2022	Expiration Date 11-29-2036	Print Date 01-12-2022
Market Number BEA003	Channel Block B	Sub-Market Designator 1	
Market Name Boston-Worcester-Lawrence-Lowe			
1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

This authorization is conditioned upon the licensee, prior to initiating operations from any base or fixed station, making reasonable efforts to coordinate frequency usage with known co-channel and adjacent channel incumbent federal users operating in the 1710-1755 MHz band whose facilities could be affected by the proposed operations. See, e.g., FCC and NTIA Coordination Procedures in the 1710-1755 MHz Band, Public Notice, FCC 06-50, WTB Docket No. 02-353, rel. April 20, 2006.

AWS operations must not cause harmful interference across the Canadian or Mexican Border. The authority granted herein is subject to future international agreements with Canada or Mexico, as applicable.

Conditions:

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

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

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQGA900

File Number: 0009773233

Print Date: 01-12-2022

700 MHz Relicensed Area Information:

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

REFERENCE COPY

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



Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
 CELLCO PARTNERSHIP
 5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
 ALPHARETTA, GA 30022

Call Sign WRNE627	File Number
Radio Service PM - 3.7 GHz Service	

FCC Registration Number (FRN): 0003290673

Grant Date 07-23-2021	Effective Date 07-23-2021	Expiration Date 07-23-2036	Print Date
Market Number PEA007	Channel Block A1	Sub-Market Designator 0	
Market Name Boston, MA			
1st Build-out Date 07-23-2029	2nd Build-out Date 07-23-2033	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

Operation for this combination license grants both interim and final rights for this PEA and is not impacted by the relocation process pursuant to 47 CFR ? 27.1412(g).

License is conditioned on compliance with all applicable FCC rules and regulations, including licensee making payments required by 47 C.F.R. §§ 27.1401- 27.1424 as described in FCC 20-22. See FCC 20-22, paras. 178-331.

Conditions:

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

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

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WRNE627

File Number:

Print Date:

700 MHz Relicensed Area Information:

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

REFERENCE COPY

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



Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
 CELLCO PARTNERSHIP
 5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
 ALPHARETTA, GA 30022

Call Sign WRNE628	File Number
Radio Service PM - 3.7 GHz Service	

FCC Registration Number (FRN): 0003290673

Grant Date 07-23-2021	Effective Date 07-23-2021	Expiration Date 07-23-2036	Print Date
Market Number PEA007	Channel Block A2	Sub-Market Designator 0	
Market Name Boston, MA			
1st Build-out Date 07-23-2029	2nd Build-out Date 07-23-2033	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

Operation for this combination license grants both interim and final rights for this PEA and is not impacted by the relocation process pursuant to 47 CFR ? 27.1412(g).

License is conditioned on compliance with all applicable FCC rules and regulations, including licensee making payments required by 47 C.F.R. §§ 27.1401- 27.1424 as described in FCC 20-22. See FCC 20-22, paras. 178-331.

Conditions:

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

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

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WRNE628

File Number:

Print Date:

700 MHz Relicensed Area Information:

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

REFERENCE COPY

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



Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
 CELLCO PARTNERSHIP
 5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
 ALPHARETTA, GA 30022

Call Sign WRNE629	File Number
Radio Service PM - 3.7 GHz Service	

FCC Registration Number (FRN): 0003290673

Grant Date 07-23-2021	Effective Date 07-23-2021	Expiration Date 07-23-2036	Print Date
Market Number PEA007	Channel Block A3	Sub-Market Designator 0	
Market Name Boston, MA			
1st Build-out Date 07-23-2029	2nd Build-out Date 07-23-2033	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

Operation for this combination license grants both interim and final rights for this PEA and is not impacted by the relocation process pursuant to 47 CFR ? 27.1412(g).

License is conditioned on compliance with all applicable FCC rules and regulations, including licensee making payments required by 47 C.F.R. §§ 27.1401- 27.1424 as described in FCC 20-22. See FCC 20-22, paras. 178-331.

Conditions:

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

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

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WRNE629

File Number:

Print Date:

700 MHz Relicensed Area Information:

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

REFERENCE COPY

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



Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
 CELLCO PARTNERSHIP
 5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
 ALPHARETTA, GA 30022

Call Sign WRNE630	File Number
Radio Service PM - 3.7 GHz Service	

FCC Registration Number (FRN): 0003290673

Grant Date 07-23-2021	Effective Date 07-23-2021	Expiration Date 07-23-2036	Print Date
Market Number PEA007	Channel Block A4	Sub-Market Designator 0	
Market Name Boston, MA			
1st Build-out Date 07-23-2029	2nd Build-out Date 07-23-2033	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

This final license provides authorization during the full 15-year license term. Operation under this final license may begin on the earlier of (1) 12/5/2025 or (2) the date that the certification for accelerated relocation for this PEA is validated by the FCC pursuant to 47 CFR § 27.1412(g).

License is conditioned on compliance with all applicable FCC rules and regulations, including licensee making payments required by 47 C.F.R. §§ 27.1401- 27.1424 as described in FCC 20-22. See FCC 20-22, paras. 178-331.

Conditions:

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

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

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WRNE630

File Number:

Print Date:

700 MHz Relicensed Area Information:

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

REFERENCE COPY

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



Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Call Sign	File Number
WRNE631	
Radio Service PM - 3.7 GHz Service	

FCC Registration Number (FRN): 0003290673

Grant Date 07-23-2021	Effective Date 07-23-2021	Expiration Date 07-23-2036	Print Date
Market Number PEA007	Channel Block A5	Sub-Market Designator 0	
Market Name Boston, MA			
1st Build-out Date 07-23-2029	2nd Build-out Date 07-23-2033	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

This final license provides authorization during the full 15-year license term. Operation under this final license may begin on the earlier of (1) 12/5/2025 or (2) the date that the certification for accelerated relocation for this PEA is validated by the FCC pursuant to 47 CFR § 27.1412(g).

License is conditioned on compliance with all applicable FCC rules and regulations, including licensee making payments required by 47 C.F.R. §§ 27.1401- 27.1424 as described in FCC 20-22. See FCC 20-22, paras. 178-331.

Conditions:

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

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

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WRNE631

File Number:

Print Date:

700 MHz Relicensed Area Information:

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

REFERENCE COPY

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

**Federal Communications Commission
Wireless Telecommunications Bureau****RADIO STATION AUTHORIZATION**

LICENSEE: AIRTOUCH CELLULAR

ATTN: REGULATORY
AIRTOUCH CELLULAR
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Call Sign	File Number
KNLF646	
Radio Service	
CW - PCS Broadband	

FCC Registration Number (FRN): 0006146468

Grant Date 12-02-2016	Effective Date 11-30-2017	Expiration Date 01-03-2027	Print Date
Market Number BTA051	Channel Block C	Sub-Market Designator 3	
Market Name Boston, MA			
1st Build-out Date 12-07-2003	2nd Build-out Date 01-03-2007	3rd Build-out Date	4th Build-out Date

Waivers/Conditions:

This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

Special Condition for AU/name change (6/4/2016): Grant of the request to update licensee name is conditioned on it not reflecting an assignment or transfer of control (see Rule 1.948); if an assignment or transfer occurred without proper notification or FCC approval, the grant is void and the station is licensed under the prior name.

Conditions:

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

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

Licensee Name: AIRTOUCH CELLULAR

Call Sign: KNLF646

File Number:

Print Date:

700 MHz Relicensed Area Information:

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

REFERENCE COPY

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



Federal Communications Commission
Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: AIRTOUCH CELLULAR

ATTN: REGULATORY
 AIRTOUCH CELLULAR
 5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
 ALPHARETTA, GA 30022

Call Sign KNLH310	File Number
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0006146468

Grant Date 06-08-2017	Effective Date 11-30-2017	Expiration Date 06-27-2027	Print Date
Market Number BTA051	Channel Block E	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

Waivers/Conditions:

NONE

Conditions:

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

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

Licensee Name: AIRTOUCH CELLULAR

Call Sign: KNLH310

File Number:

Print Date:

700 MHz Relicensed Area Information:

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

REFERENCE COPY

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



Federal Communications Commission

Wireless Telecommunications Bureau

RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY
CELLCO PARTNERSHIP
5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING
ALPHARETTA, GA 30022

Call Sign KNLH242	File Number 0007716969
Radio Service CW - PCS Broadband	

FCC Registration Number (FRN): 0003290673

Grant Date 06-02-2017	Effective Date 06-02-2017	Expiration Date 06-27-2027	Print Date 06-06-2017
Market Number BTA051	Channel Block F	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

Waivers/Conditions:

This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

This authorization is conditioned upon the full and timely payment of all monies due pursuant to Sections 1.2110 and 24.716 of the Commission's Rules and the terms of the Commission's installment plan as set forth in the Note and Security Agreement executed by the licensee. Failure to comply with this condition will result in the automatic cancellation of this authorization.

Conditions:

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

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

Licensee Name: CELLCO PARTNERSHIP

Call Sign: KNLH242

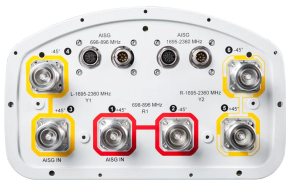
File Number: 0007716969

Print Date: 06-06-2017

700 MHz Relicensed Area Information:

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

NHH-65A-R2B



6-port sector antenna, 2x 698–896 and 4x 1695–2360 MHz, 65° HPBW, 2x RET. Both high bands share the same electrical tilt.

- Interleaved dipole technology providing for attractive, low wind load mechanical package
- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable
- Separate RS-485 RET input/output for low and high band
- One RET for low band and one RET for both high bands to ensure same tilt level for 4x Rx or 4x MIMO

Electrical Specifications

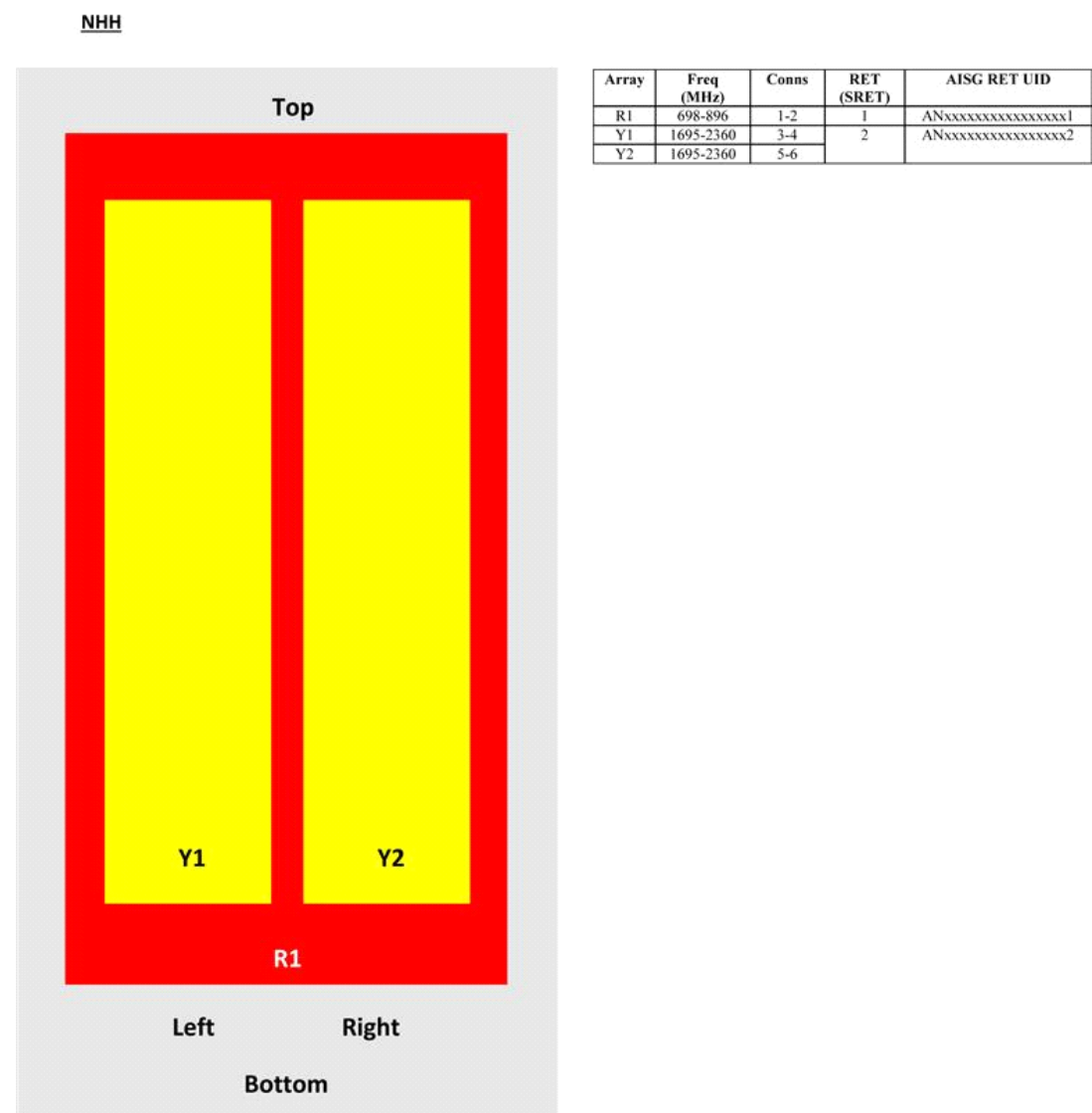
Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
Gain, dBi	13.4	13.5	16.4	16.5	17.1	17.5
Beamwidth, Horizontal, degrees	66	61	69	64	61	61
Beamwidth, Vertical, degrees	17.8	16.2	7.1	6.5	6.1	5.5
Beam Tilt, degrees	0–18	0–18	0–10	0–10	0–10	0–10
USLS (First Lobe), dB	18	16	18	17	16	15
Front-to-Back Ratio at 180°, dB	29	26	33	32	30	32
Isolation, Cross Polarization, dB	25	25	25	25	25	25
Isolation, Inter-band, dB	30	30	30	30	30	30
VSWR Return Loss, dB	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0	1.5 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153
Input Power per Port at 50°C, maximum, watts	300	300	250	250	250	200
Polarization	±45°	±45°	±45°	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm	50 ohm

Electrical Specifications, BASTA*

Frequency Band, MHz	698–806	806–896	1695–1880	1850–1990	1920–2200	2300–2360
Gain by all Beam Tilts, average, dBi	13.1	13.2	16.1	16.3	16.6	17.1
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.5	±0.4	±0.4	±0.6	±0.5
Gain by Beam Tilt, average, dBi	0 ° 13.3 9 ° 13.2 18 ° 13.8	0 ° 13.4 9 ° 13.4 18 ° 12.7	0 ° 16.0 5 ° 16.1 10 ° 16.0	0 ° 16.1 5 ° 16.3 10 ° 16.3	0 ° 16.4 5 ° 16.7 10 ° 16.4	0 ° 17.0 5 ° 17.2 10 ° 16.7
Beamwidth, Horizontal Tolerance, degrees	±2.8	±3.6	±3.9	±3.5	±6.6	±4.6
Beamwidth, Vertical Tolerance, degrees	±1.5	±1.3	±0.3	±0.4	±0.5	±0.3
USLS, beampeak to 20° above beampeak, dB	15	16	12	13	13	14
Front-to-Back Total Power at 180° ± 30°, dB	24	23	27	26	23	26
CPR at Boresight, dB	18	19	20	22	21	22
CPR at Sector, dB	10	5	12	9	5	2

* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, [download the whitepaper Time to Raise the Bar on BSAs.](#)

Array Layout



View from the front of the antenna

(Sizes of colored boxes are not true depictions of array sizes)

General Specifications

Operating Frequency Band	1695 – 2360 MHz 698 – 896 MHz
Antenna Type	Sector

NHH-65A-R2B

Band	Multiband
Performance Note	Outdoor usage Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
Total Input Power, maximum	900 W @ 50 °C

Mechanical Specifications

RF Connector Quantity, total	6
RF Connector Quantity, low band	2
RF Connector Quantity, high band	4
RF Connector Interface	7-16 DIN Female
Color	Light gray
Grounding Type	RF connector body grounded to reflector and mounting bracket
Radiator Material	Aluminum Low loss circuit board
Radome Material	Fiberglass, UV resistant
Reflector Material	Aluminum
RF Connector Location	Bottom
Wind Loading, frontal	206.0 N @ 150 km/h 46.3 lbf @ 150 km/h
Wind Loading, lateral	169.0 N @ 150 km/h 38.0 lbf @ 150 km/h
Wind Loading, maximum	396.0 N @ 150 km/h 89.0 lbf @ 150 km/h
Effective Projected Area (EPA), frontal	0.19 m ² 2.05 ft ²
Effective Projected Area (EPA), lateral	0.16 m ² 1.72 ft ²
Wind Speed, maximum	241 km/h 150 mph

Dimensions

Length	1413.0 mm 55.6 in
Width	301.0 mm 11.9 in
Depth	180.0 mm 7.1 in
Net Weight, without mounting kit	15.9 kg 35.1 lb

Remote Electrical Tilt (RET) Information

Input Voltage	10–30 Vdc
Internal Bias Tee	Port 1 Port 3
Internal RET	High band (1) Low band (1)
Power Consumption, idle state, maximum	2 W
Power Consumption, normal conditions, maximum	13 W
Protocol	3GPP/AISG 2.0 (Single RET)
RET Interface	8-pin DIN Female 8-pin DIN Male

NHH-65A-R2B

RET Interface, quantity 2 female | 2 male

Packed Dimensions

Length 1532.0 mm | 60.3 in
Width 409.0 mm | 16.1 in
Depth 299.0 mm | 11.8 in
Shipping Weight 26.8 kg | 59.1 lb

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant by Exemption
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
China RoHS SJ/T 11364-2014	Above Maximum Concentration Value (MCV)



Included Products

BSAMNT-3 — Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

* Footnotes

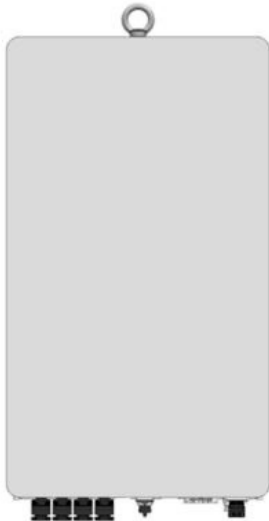
Performance Note Severe environmental conditions may degrade optimum performance

C-band 64T64R

SAMSUNG

Gen 2

Gen 2 : Higher conducted power radio with reduced size/volume/weight vs Gen 1 and also SOC embedded for flexibility to support new features



※ Preliminary Design: External appearance and mechanical design can be subject to change

Gen 2. 64T64R C-band MMU Dimensions	
Size (WxHxD)	400 x 734 x 140 mm (15.75 x 28.90 x 5.51 inch)
Weight	26kg (57.3 lb)

Item	Gen 2 64T64R (MT6413-77A)
Air Technology	NR n77/TDD
Frequency	3700 – 3980 MHz
IBW	200 MHz
OBW	200 MHz
Carrier Bandwidth	20(HW ready)/40/60/80/100 MHz
# of Carriers	2 carriers
Layer	DL : 16L, UL : 16RX (8L)
RF Chain	64T64R
Antenna Configuration	4V16H with 192 AE
EIRP	80.5 dBm @320W (55 dBm + 25.5 dBi)
Conductive Power	320W
Spectrum Analyzer	TX/RX support
RX Sensitivity	Typical -97.8dBm @(1Rx, 18.36MHz with 30kHz,51RBs)
Modulation	DL 256QAM support, (DL 1024QAM with 1~2dB power back-off)
Function Split	DL/UL option 7-2x
Input Power	-48 VDC (-38 VDC to -57 VDC)
Power Consumption	1,287W (100% load, room temp.)
Size (WHD)	400 x 734 x 140 mm (15.75 x 28.90 x 5.51 inch)
Volume	41.1L
Weight	26kg (57.3 lb)
Operating Temperature	-40°C - 55°C (w/o solar load)
Cooling	Natural convection
Unwanted Emission	3GPP 38.104
	FCC 47 CFR 27.53 : < -13dBm/MHz
	< -40 dBm/MHz @ above 4 GHz
	< -50 dBm /MHz @ 4,040 ~ 4,050 MHz, < -60 dBm /MHz @ above 4,050 MHz
Optic Interface	15km, 4 ports (25Gbps x 4), SFP28, single mode, Bi-di (Option: Duplex)
Mounting Options	Pole, wall
NB-IoT	Not support
External Alarm	4RX
Fronthaul Interface	eCPRI

SAMSUNG NETWORKS

5G NR mmWave Access Unit

28GHz (n257)

AT1K01

Samsung's AT1K01 is an integrated Access Unit targeting rapid deployment of first-wave 5G networks using high-frequency millimeter wave, ideal for high-density deployments with strict footprint requirements.



The AT1K01 Access Unit (AU) targets support for NR Band 257 (28GHz) and an incredibly compact footprint, which makes it ideal for deployment of ultra-high capacity 5G coverage.

The AU combines both RF (Radio Frequency) and baseband processing functionality as well as a built-in antenna array into a single form-factor enabling robust coverage and high throughput connectivity. The range and line-of-sight challenges introduced by high-frequency millimeter wave spectrum are overcome thanks to Samsung's hybrid beamforming technology which focuses radio output at each individual device.

By integrating radio and baseband functionality into a single unit, the AU can be deployed as part of a streamlined RAN architecture, more flexibly matching performance, load management and optimization requirements with available backhaul capacity and target use case requirements.

Features and Benefits

- Single-box architecture streamlines, simplifies and compacts deployment
- Beamforming capability overcomes challenges of high-frequency coverage
- Minimal footprint reduces site acquisition and deployment costs
- Rapid, easy installation onto pole-mount
- Sleek design blends into streetscape environments
- Convection cooled, silent operation
- Supports option 2 functional split

Key Technical Specifications

Duplex Type: TDD
Operating Frequency: n257 (26.5~29.5Hz)
Occupied B/W: 800MHz
Antenna Elements: 1024 (256 per path)
Antenna Configuration: 4T4R
EIRP: 60dBm (54dBm x 4 paths)
Backhaul Interface: 2x SFP+ or 2x SFP28
Dimensions: 9.57 x 16.81 x 6.89 inches (18.2L)
Weight: 33 lbs
Input Power: -48V DC or 100~240V AC
Operating Temp.: -40°C ~ +55°C
Cooling: Natural convection

※ Specification is subject to change

Chapter 1 Before Installation

This chapter introduces the AU system and describes the items that you should know before installation.

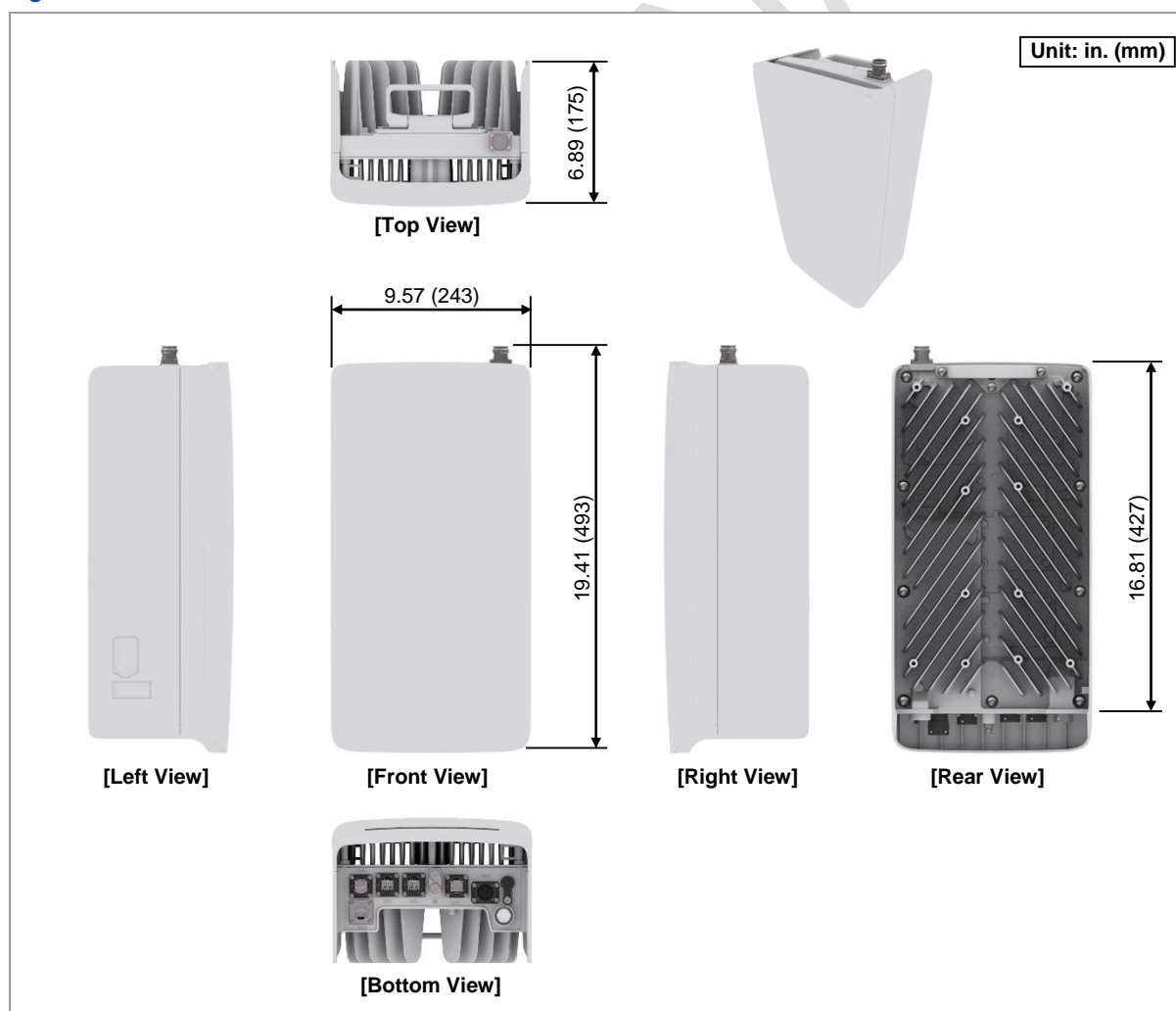
AU View and External Interface

This section provides the physical structure of the AU and its interfaces.

AU View

The figure below depicts the physical structure of the AU:

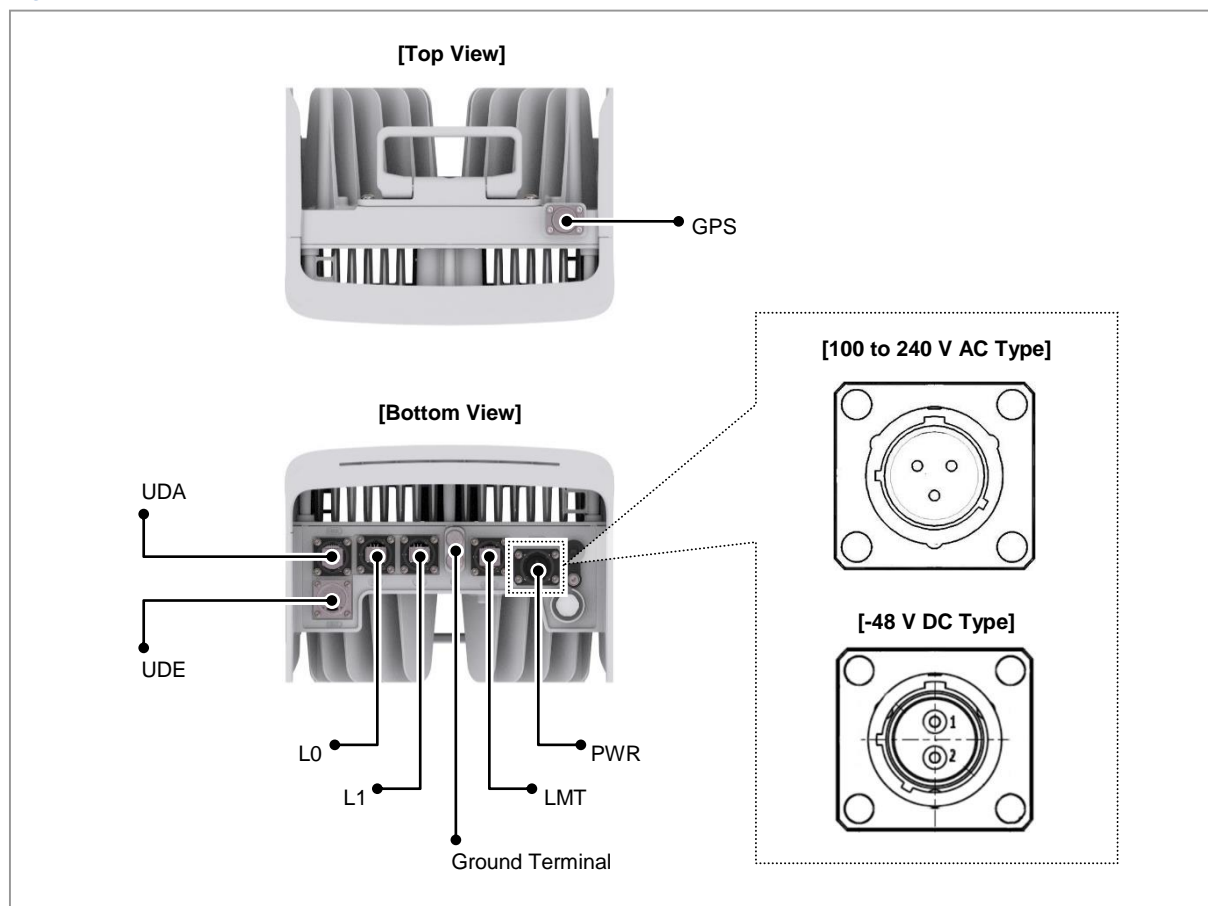
Figure 1. AU View



AU External Interface

The figure below depicts the external interface structure of the AU:

Figure 2. AU External Interface



Specifications

The table below outlines the main specifications of the AU:

Table 1. Specifications

Item		AT1K01
Technology		5G NR
Operating Frequency		27.5 to 28.35 GHz
RF Chain		1024 TR/unit
Antenna Array	Configuration	1024 AE (4T4R)
	Element	256 AE (16H16V)/path, 1024 AE/unit
	Gain	28 dBi/path
IBW/OBW		850/800 MHz
Channel Bandwidth/Capacity		100 MHz Max 8CC (50/200/400 MHz will be supported in ES2, SVR19A: 100 MHz)
RF Output Power		26 dBm/path, 32 dBm/unit
Input Voltage		-48 V DC (-36 to -58 V DC) or 100 to 240 V AC
Input Current		10.9 A @ -48 V DC 4.3 A @ 100 to 240 V AC
LED		Total: 1 EA Powered, Operational, Fail (3 Status w/different colors)
Operational Temperature		-40~55°C (with solar load)
Humidity		TBD
IP rating		IP65
EMC		FCC Title 47 CFR Part 15 Subpart B
Safety		UL 60950 or 62368
Installation		Pole/Wall/Tower mounting
Dimension (W × D × H)		<ul style="list-style-type: none"> 9.57 in. (243 mm) × 6.89 in. (175 mm) × 16.81 in. (427 mm) • (@without cover) 9.57 in. (243 mm) × 6.89 in. (175 mm) × 19.4 in. (493 mm) (@with cover & GPS Port)
Volume		< 18.16 L
Weight		< 33.07 lb (15.8 kg)



Dewberry Engineers Inc.
99 Summer Street, Suite 700
Boston, MA 02110-1200

617.695.3400
617.695.3310 fax
www.dewberry.com

December 12, 2024

Andrew Leone
Verizon Wireless
51 Alder Street
Medway, MA 02053

Re: Harvard SQ 2 MA (Rev. 2)
PSLC: 137823
Fuze #: 16271978
1654 Mass Ave
Cambridge, MA 02138

Dear Mr. Leone:

Verizon Wireless has proposed to replace (2) existing antennas with (3) new MT6413-77A antennas w/ integrated RRHs, and (1) CommScope TD-850B-LTE78-43 combiner (Alpha sector only) on the rooftop at the above referenced site. Verizon also has (6) existing NHH-65A-R2B antennas on (3) BSAMNT-SBS-1-2, (3) VZ-AT1K01 5G antennas w/ integrated AT1K01 DC RRHs, (3) Samsung B2/B66a RRHs, (3) Samsung B5/B13 RRHs, and (3) 12-OVPs that are to remain. The proposed equipment will be mounted to existing steel mast pipes mounted to the building chimneys. Please see Antenna Mount Analysis Report by NB+C dated 11/11/24 for the full mount analysis.

Dewberry Engineers Inc. (Dewberry) has reviewed the antenna design sheets (dated 09/09/24) provided by Verizon Wireless and has determined, based on an ultimate wind speed of 120 mph and a minimum flat roof snow load of 30 psf per the Massachusetts State Building Code – 780 CMR 10th Edition, that the existing chimneys and building have adequate capacity to support the proposed equipment configuration. Dewberry assumes that the new antennas, RRHs, and associated equipment are installed per the latest Construction Drawings by Dewberry.

Our assessment is based on our visual inspection that the existing antenna mounts and building structure are in good condition and were constructed in accordance with all applicable state and local building codes. If, during construction, any damage, deterioration, and/or discrepancies are noticed, Dewberry is to be notified to assess any deviation from the assumed condition. Any alteration in equipment loading described above and on the associated plans will void any conclusions expressed herein and will require further analysis and design. No structural qualification is made or implied by this structural letter for existing structural members not supporting the proposed installation.

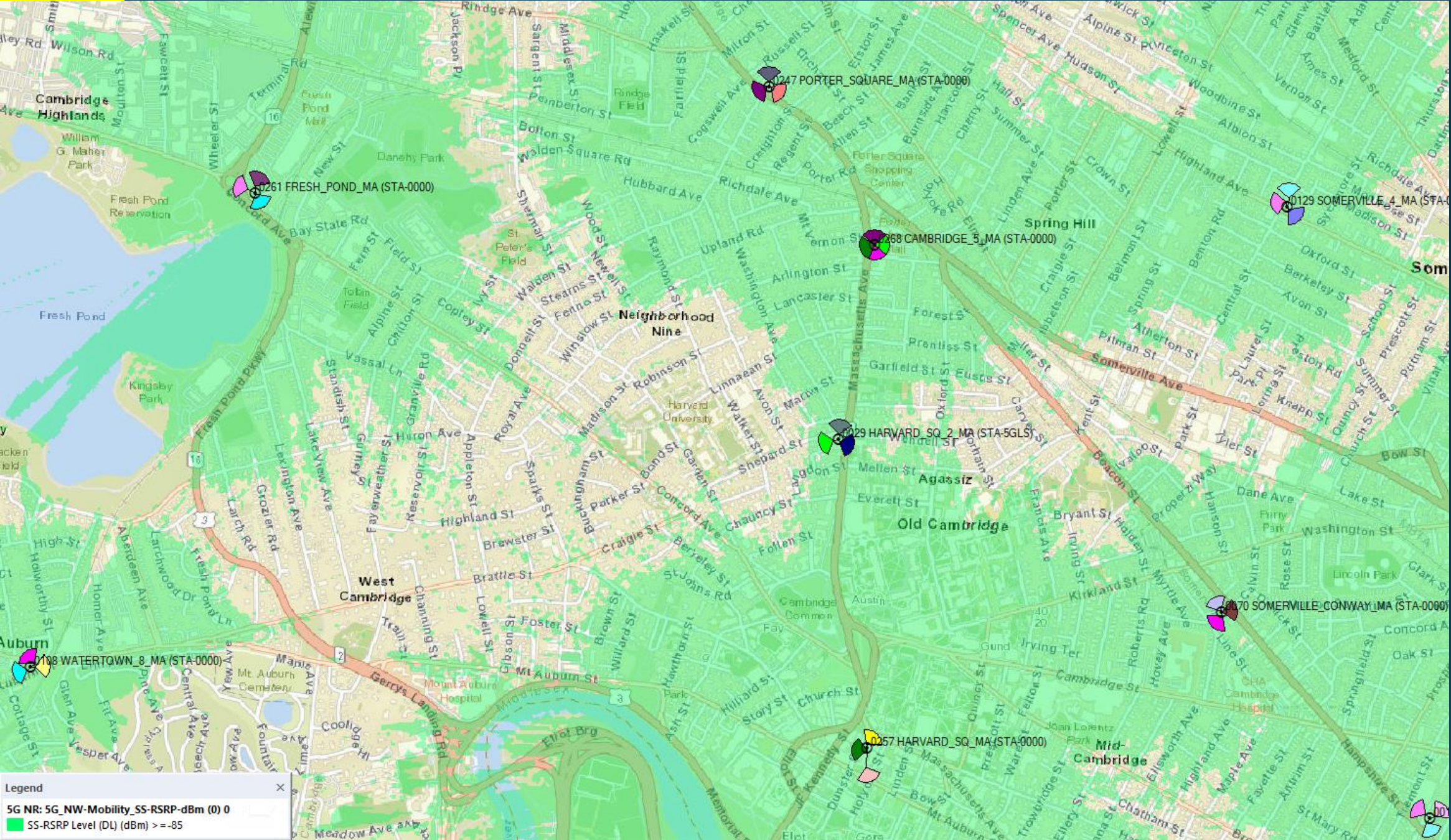
If you have any questions, please do not hesitate to call me at 617-531-0744.

Sincerely,
Dewberry Engineers Inc.

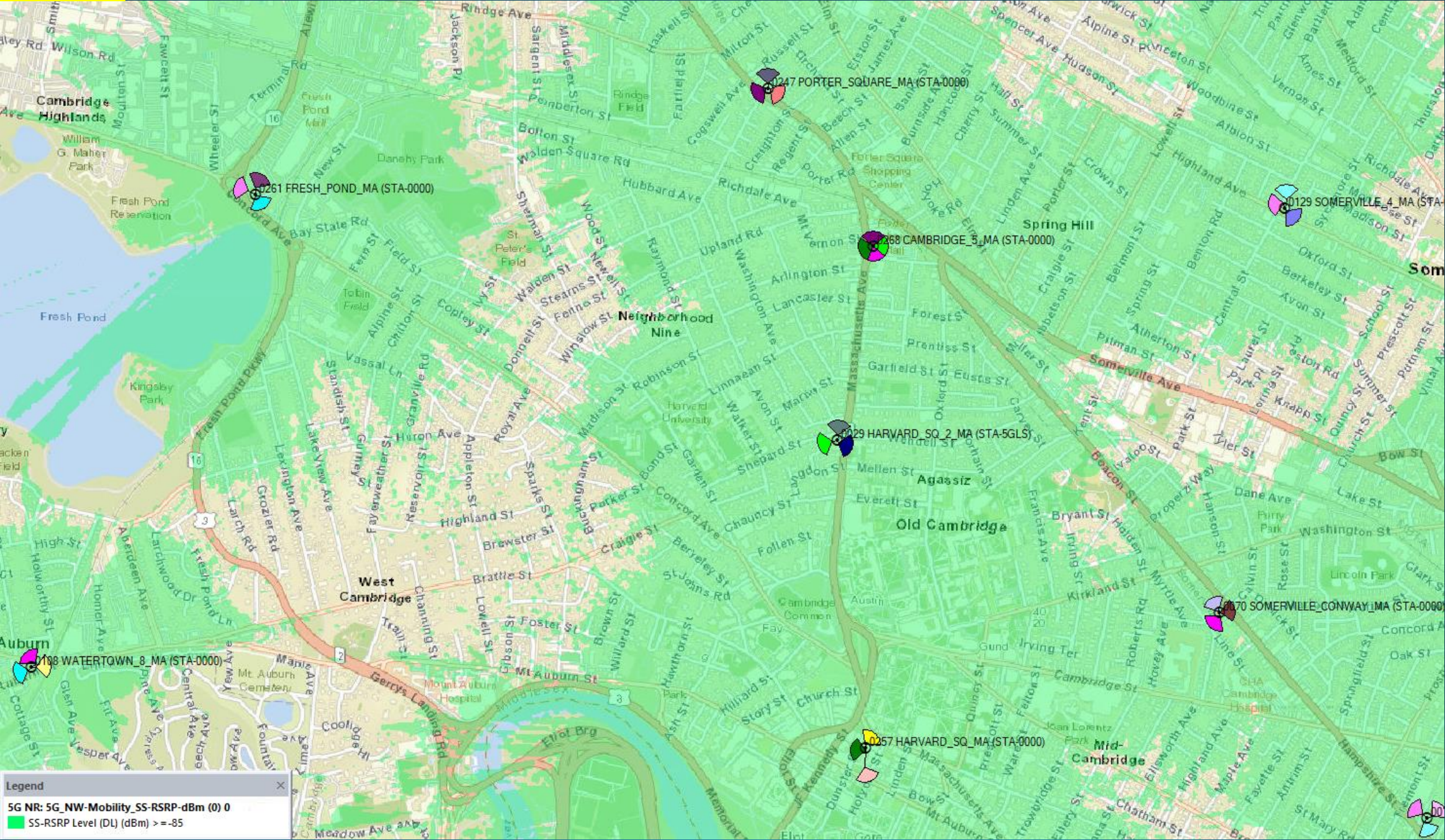


Brandon Kelsey, P.E.
Structural Project Engineer

HARVARD_SQ_2_MA C-BAND PLOTS



Proposed CBAND Coverage



**Verizon Wireless 60-Day Eligible Facility
Request Modification of Existing Wireless Base Station**

Request Date: *May 27, 2025*

Jurisdiction: *City of Cambridge, Massachusetts*

Department: *Board of Zoning Appeal*

Site Address: *1654 Massachusetts Avenue, Cambridge, Massachusetts 02138*

Verizon Wireless Contact: *Michael Shine, SAI Group, (973) 454-0302*

This document serves as Verizon Wireless's eligible facilities request to modify an existing wireless rooftop facility at the above-referenced site address. This eligible facilities request must be approved administratively under Section 6409 of the Federal Spectrum Act and Federal Communications Commission ("FCC") rules (the "Spectrum Act"). Review by the City of Cambridge is limited to determining whether the proposed modification qualifies as an eligible facilities request that does not substantially change the physical dimensions of the wireless facility. All permits necessary to commence construction must be approved within 60 days of the request date set forth above, subject to tolling for incompleteness.

For this request, Verizon Wireless attaches the following documents for the permit required by the City of Cambridge to commence construction of the modification:

1. *Special Permit Application;*
2. *Plans prepared by Dewberry Engineers Inc. dated May 9, 2025 (the "Plans");*
3. *Certified List of Abutters within 300 feet*
4. *GIS Block Map*
5. *Deed*
6. *FCC Licenses*
7. *Antenna Specifications*
8. *Coverage Maps*
9. *Structural Analysis*
10. *Photo Simulations of proposed modifications*

Project Description

To accommodate new wireless technologies, Verizon Wireless proposes to modify the existing Beta sector chimney mount, specifically, to remove two (2) existing Beta and Gamma CDMA

Antennas from existing mast pipes, relocate three (3) existing NR Antennas, and install three (3) new MT6413-77A Antennas on existing mounting pipes, one (1) new combiner, as well as additional hardware per RFDS located inside of existing equipment room. All new equipment will have 3M wrap to match the proposed MT6413-77A Antennas and painted to match the chimney color, hardware and jumpers. No additional changes are proposed for the modification.

FCC Rules for Eligible Facilities Requests

The Spectrum Act states that “a State or local government may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station.” An “eligible facilities request”¹ is defined to include any collocation, removal, or replacement of existing equipment.²

The FCC adopted rules providing legally binding guidance on key terms of the Spectrum Act, notably defining “substantial change” with the six thresholds described below.³ The FCC requires that qualifying eligible facilities requests be approved within 60 days, subject to tolling for incompleteness.⁴ The 60-day period begins when an applicant takes the first procedural step required by a local government, and submits written documentation.⁵ The only submittal documents a local government can require are those relevant to determining if a proposed modification qualifies as an eligible facilities request.⁶ If a local government does not render a decision within the 60-day period, an eligible facilities request can be deemed granted by operation of law.⁷

The Proposed Modification Does Not Constitute a “Substantial Change”

Below are the FCC’s six “substantial change” thresholds for a wireless base station,⁸ each followed by an explanation why the proposed modification does not exceed that threshold.

- 1) It increases the height of the structure by more than 10% or more than ten feet, whichever is greater.

As shown on the Plans, there are no proposed height increases beyond any of the existing structures on the rooftop.

- 2) It involves adding an appurtenance to the body of the structure that would protrude from the edge of the structure by more than six feet.

¹ 47 U.S.C. § 1455(a)(1).

² 47 U.S.C. § 1455(a)(2).

³ See Report and Order FCC 14-153, 29 FCC Rcd. 12865 (FCC October 17, 2014); see also Report and Order FCC 20-153, 2020 WL 6501650 (FCC October 27, 2020).

⁴ See 47 C.F.R. § 1.6100(c)(2),(3).

⁵ Declaratory Ruling 20-75, 35 FCC Rcd 5977, ¶ 16 (FCC June 9, 2020).

⁶ See 47 C.F.R. § 1.6100(c)(1).

⁷ See 47 C.F.R. § 1.6100(c)(4).

⁸ See 47 C.F.R. § 1.6100(b)(7).

As shown on the Plans, none of the proposed equipment protrudes from the edge of the building by more than six feet.

- 3) For any eligible support structure, it involves the installation of more than the standard number of new equipment cabinets for the technology involved, but not to exceed four; or, for base stations, it involves installation of any new equipment cabinets on the ground if there are no pre-existing ground cabinets associated with the structure, or else involves installation of ground cabinets that are more than 10% larger in height or overall volume than any other ground cabinets associated with the structure.

As shown on the Plans, no new cabinets are proposed.

- 4) Entails any excavation or deployment outside the current site (as defined at 47 C.F.R. § 1.6100(b)(6)).

As shown on the Plans, none of the modifications entail excavation or deployment outside the current site.

- 5) Would defeat any concealment elements of the existing facility.

As shown on the Plans, the existing concealment elements of the base station will not change as the new equipment will all be wrapped or painted to match all existing concealment elements of existing equipment. Therefore, the modification does not defeat any concealment elements of the existing facility.

- 6) Does not comply with conditions associated with the prior approval of the existing facility, unless the non-compliance is due only to a change in height, width, etc., that does not exceed the first four thresholds.

There are no prior conditions of approval that would render the modification to be non-compliant.

In sum, the modification clearly qualifies as an “eligible facilities request” under the Spectrum Act and FCC rules, because it does not exceed any of the thresholds such that it would “substantially change” the physical dimensions of the existing base station.

Failure to process this eligible facilities request and approve all necessary permits within 60 days may result in the request being deemed granted by operation of law.

[illegible]

1654 Mass Ave

Petitioners

173-65
TABIT, SALIM, NANCY C TABIT & EDDY TABIT
TRUSTEES THE TABIT FAMILY 2010 IRREV TRU
1804 DOGWOOD CIRCLE
NORTH ANDOVER, MA 01845

156-26
PRESIDENT & FELLOWS OF HARVARD COLLEGE
C/O HARVARD REAL ESTATE, INC.
HOLYOKE CENTER, ROOM 1017
1350 MASS. AVE.
CAMBRIDGE, MA 02138

CELLCO PARTNERSHIP
D/B/A VERIZON WIRELESS
C/O ELLEN FREYMAN, AGENT
1441 MAIN STREET - SUITE 1100
SPRINGFIELD, MA 01103

173-29
WHELAN, PATRICIA MARIE
6 SHEPARD ST UNIT 2
CAMBRIDGE, MA 02138-1712

173-67
JOHN HARVARD LLC,
C/O CHESTNUT HILL REALTY CORP
P.O. BOX 396
CHESTNUT HILL, MA 02467

CELLCO PARTNERSHIP
D/B/A VERIZON WIRELESS
C/O BRETT SMITH
1441 MAIN STREET - SUITE 1100
SPRINGFIELD, MA 01103

173-37
MOORE, GORDON T., CHARLOTTE B. MOORE
9 RUTLAND ST
CAMBRIDGE, MA 02138

174-37
STONE INVESTMENT HOLDING LLC,
9 SHEPARD ST.
CAMBRIDGE, MA 02138

174-70
ZUCKER, DEBORAH
3 SHEPARD ST #3
CAMBRIDGE, MA 02138

173-36
WESTHEIMER, ELLEN
19 RUTLAND ST
CAMBRIDGE, MA 02138

174-70
RAGER, CLARE S TRS KYLE M RAGER TRS
5 SHEPARD ST - UNIT 4
CAMBRIDGE, MA 02138

174-70
LEE, SHIRLEY Y. & FRANK S. LEE.,
TR. FRANK S. LEE & SHIRLEY Y. LEE FAM. TR.
3 SHEPARD ST UNIT 1
CAMBRIDGE, MA 02139

174-70
METTLER, BERNARD
2120 KEYWOOD PARKWAY
MINNEAPOLIS, MN 55405

156-24
LESLEY COLLEGE
29 EVERETT STREET
CAMBRIDGE, MA 02138

173-38
RUTTER, JOHN A. &
KATHLEEN HUNTER RUTTER
5-7 RUTLAND ST UNIT 5/1
CAMBRIDGE, MA 02139

173-38
PUTRIH, TOBIAS & MOJCA SKOBERNE
5-7 RUTLAND ST UNIT 7/1
CAMBRIDGE, MA 02139

173-29
MOULTON, MARGARET M. &
PETER F. MOULTON
6-8 SHEPARD ST UNIT 6
CAMBRIDGE, MA 02138

173-38
HOWE WILLA
5-7 RUTLAND ST - UNIT 7-2
CAMBRIDGE, MA 02138

173-75
MASS 1640 LLC
1640 MASSACHUSETTS AVE
CAMBRIDGE, MA 02138

173-29
SCHWARTZBURG, MARY A
6-8 SHEPARD ST - UNIT 4
CAMBRIDGE, MA 02139

174-70
WELCH, MARY TUCK
3-5 SHEPARD ST - UNIT 2
CAMBRIDGE, MA 02138

174-78
GANT, ALISON
7 SHEPARD ST
CAMBRIDGE, MA 02138

173-29
SIMPSON, ANITA RAE
TRS THE ANITA RAE SIMPSON LIVING TR
8 SHEPARD ST - UNIT 1
CAMBRIDGE, MA 02138

173-29
ARANBOLDI, NICOLE S TRS NICOLE S
ARNABOLDI 2010 IRREVOCABLE TR
8 SHEPARD ST UNIT 3
CAMBRIDGE, MA 02138

173-30
BASS, STEEDMAN L TRS
4 SHEPARD ST
CAMBRIDGE, MA 02138

173-29
HUNT, MELISSA &
GARTH ISAAK HUNT-ISAAC, IAN ET AL
6-8 SHEPARD ST - UNIT 5
CAMBRIDGE, MA 02138

173-48
MILLER, TUCKER REED JOHN KURT MILLER
C/O CHARLESGATE PROPERTY MANAGEMENT
867 BOYLSTON ST 3RD FLOOR
BOSTON, MA 02116