March 30, 2026

Town of Groton Land Use Department
173 Main Street
Groton, MA 01450

Subject: **Professional Engineer Commentary Letter for construction of a 120-ft (125-ft AGL overall with appurtenances) Monopole communications tower facility**
TowerCom C-PRV: 703 Chicopee Row Groton, MA Cell Tower
703 Chipopee Row
Groton, MA 01450
(Middlesex County)

To Whom It May Concern:

I am writing on behalf of TowerCom C-PRV regarding the proposed construction of a proposed 120-ft (125-ft AGL overall with appurtenances) monopole communications tower. The proposed tower will be located at 703 Chicopee Row of the Town of Groton, in Middlesex County, Massachusetts.

This letter covers the Town of Groton's By-Laws Section §218-10.1 (c).

[1] Describe the design and location of the personal wireless services facility and the technical, economic and other reasons for the design and location.

In order to provide new coverage/enhanced coverage to Middlesex County, Massachusetts, TowerCom C-PRV proposes the construction of a 120-ft (125-ft AGL overall with appurtenances) monopole communications tower located on Chicopee Row on Groton-Dunstable School District parcel. The proposed tower will be located at the existing Maintenance Building for the school approximately 750' off Chicopee Row across from the school's baseball fields.

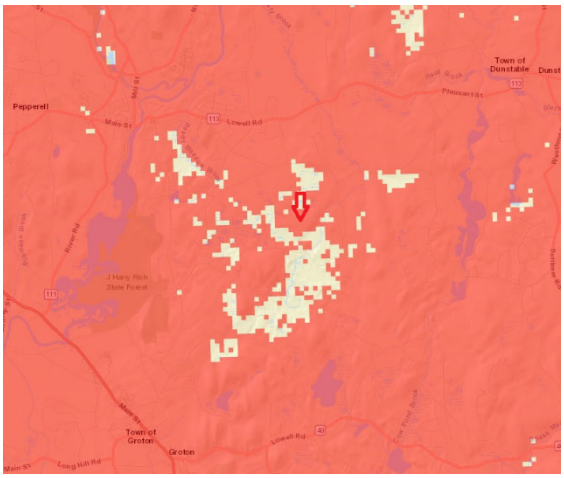
Coordinates:	N 42° 38' 51.239" – 42.64756639° (NAD '83)
	W 71° 32' 17.657" – 71.53828306° (NAD '83)
Elevation:	282.1' (NAVD '88)

The tower will be designed for four carriers with T-Mobile and Verizon with initial plans to collocate on the tower. Existing RF propagation maps are included on the next page showing their current minimal coverage in the area for T-Mobile, Verizon and AT&T. RF data provided by Ookla showing the quality of coverage in the area.

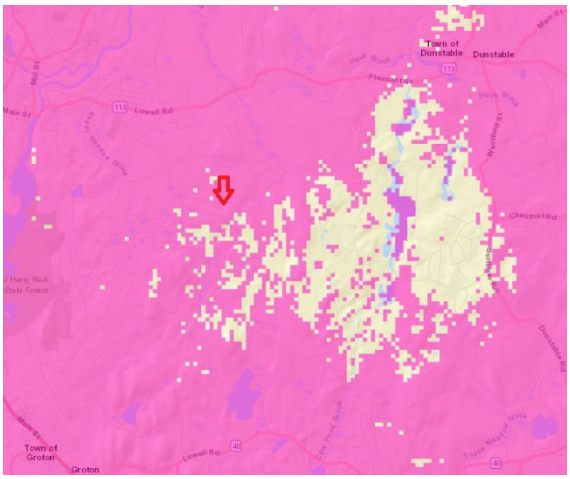
There is an existing self-support tower located next to the maintenance building that is utilized by Patriot Regional Emergence Communications Center that was built in 2021. The original design loading for that tower was minimal but sufficient for public safety purposes. TEP did complete a structural analysis of this tower in 2024 looking at the feasibility of potentially adding one carrier to the tower (structural capacity was at 187.4%) so having collocators utilize that tower is not feasible without major modifications and/or replacing the tower entirely. Patriot Regional Emergency Communications has reviewed and has no issues with the proposed new TowerCom tower.

An Aeronautical Study has been completed through the FAA as well as an additional review request has been submitted to the MassDOT Aeronautical Division. FAA OE/AAA Aeronautical Study: 2026-ANE319-OE - Determined – No Hazard.

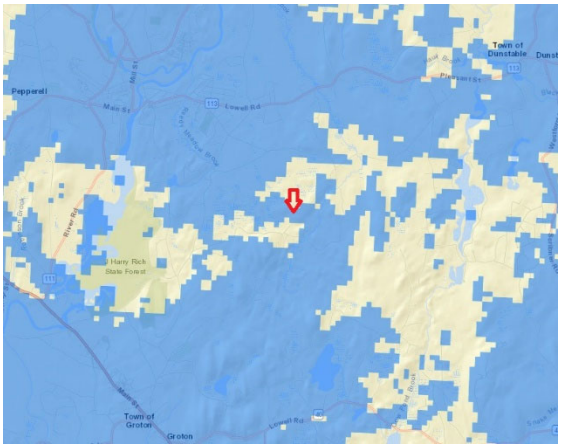
The following page includes several existing coverage maps provided by the FCC and Ookla.



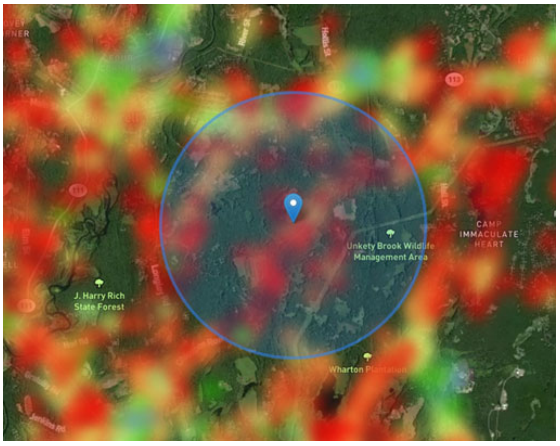
VERIZON LTE DATA COVERAGE



T-MOBILE LTE DATA COVERAGE



AT&T LTE DATA COVERAGE



OOKLA COVERAGE DATA
(Red = poor coverage)

The lack of existing minimal to no coverage in the areas surrounding the proposed tower has resulted in a lot of positive feedback and interest from T-Mobile and Verizon to locate on the tower as soon as possible if approved and built.

[2] Demonstrate that the personal wireless services facility complies with all local, state and federal standards, regulations, statutes and other requirements.

The proposed facilities is designed and comply with these following standards:

- Town of Groton By-Laws §218-10.1 with the exception of a waiver for the 150' setback from 5% slopes and 500' from all existing buildings. These requests are included with this application by TowerCom C-PRV.
- ANSI/TIA-222-H Standard for Antennas and The Supporting Structures. See Section [3] for Design Criteria
- FCC – 47 CFR § 1.130 – Radiofrequency Exposure Limits - The expected maximum ground level exposure should be well below the FCC general public exposure limits.
- FAA - OE/AAA Aeronautical Study: 2026-ANE319-OE - Determined – No Hazard.
- Massachusetts State Building Code, 10th Edition (IBC 2021 Edition, ASCE 7-16)
- Massachusetts Electric Code

[3] Describe the capacity of the personal wireless services facility, including the number and type of transmitter receivers that it can accommodate and the basis for the calculation of the capacity.

Pending Town of Groton Land Use approval, the tower will be bid out to numerous tower fabricators. The approved tower and foundation design and structural calculations will be submitted for Building Permit approval prior to construction.
The tower shall be designed so that, once installed will all loading, as shown in Table 1 - Design Antenna/Coax Loading, the tower superstructure and substructure shall NOT exceed 100% of its capacity. The tower shall be designed to the requirements of ANSI/TIA-222-H, including released addendums. The tower will be designed with the following criteria.

- Risk Category: II
- Wind Speed: 116 mph, Wind w Ice: 50 mph ultimate
- Ice Thickness: 1½"
- Exposure Category: C
- Seismic Category: C – S_s: 0.363 – S1: 0.077

Typical Design Loading required by TowerCom C-PRV is supplied here for reference.

Table 1 - Design Antenna/Coax Loading

Mount Level (ft)	Ant CL (ft)	Qty	Carrier Loading	Qty Coax	Coax Size	Coax Location
120.0	122.5	1	5-ft Lightning Rod	-	-	-
115.0	115.0	1	EPA = 30,000 in^2 10,000 lb	18	1-5/8"	Inside Pole
105.0	105.0	1	EPA = 30,000 in^2 - 8,000 lb	12	1-5/8"	Inside Pole
95.0	95.0	1	EPA = 30,000 in^2 - 8,000 lb	12	1-5/8"	Inside Pole
-	-	1	Microwave not to exceed 6'Ø	-	-	Inside Pole

1) Mount EPA is to be considered as part of the above design EPA

[4] Demonstrate that the personal wireless services facility, the site and all accessory structures, building and equipment comply with this chapter.

The proposed facilities and accessory structures will be designed and comply with these following standards:

- Town of Groton By-Laws §218-10.1 with the exception of a waiver for the 150' setback from 5% slopes and 500' from all existing buildings. These requests are included with this application by TowerCom C-PRV.
- Massachusetts State Building Code (IBC 2021 Edition)
- Massachusetts Electric Cod

Tower Removal Performance Bond

Per Town of Groton By-Laws §218-10.1 a performance bond shall be supplied to cover the costs of removing the facility from the subject property. This Bond can be supplied by TowerCom C-PRV upon approval from the Town of Groton Planning Board. TEP provides a rough estimate of $65,000 for removal of the tower and compound based on review from Construction Division on March 27, 2026.

TEP, on behalf of TowerCom C-PRV, would be happy to provide additional information as needed for this Land Use Review. Please let me know if there is anything else we can do help expedite this review and approval process.

Sincerely,

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