

1 **F. Telecommunications Infrastructure**

2 **History**

3 The New England Telephone and Telegraph Company brought telephone service to East Montpelier
4 around 1891. Public telephones were installed at general stores in East Montpelier Village and North
5 Montpelier, the Montpelier and Wells River Railroad depot. A few residences were also early adopters.
6 By 1912 telephone service extended along most of the town's major roads. (*Across the Onion*, 1983)

7 Deregulation and new technologies have brought major changes to how telephone service is provided.
8 Verizon sold its Vermont landline business to Fairpoint Communications in 2008, which was then
9 acquired by Consolidated Communications in 2016.

10 Cell phones began to become more common in the 1990s and early 2000s, and the first smartphones
11 were introduced in that decade.

12 The fire department and road crew have historically relied on [paging systems and commercial band
13 radio] to communicate within the town. This has continued, at least in part, due to a lack of universal
14 cell coverage within the town. Emergency service communications are moving towards greater reliance
15 on wireless phone networks, however. In 2017 the federal government signed a contract with AT&T for
16 the creation of a nationwide first responder communications network known as FirstNet. This contract
17 has required AT&T to ensure coverage in areas that it could not previously reach, which has created
18 pressure to place new transmitters and build new towers.

19 East Montpelier residents have been served by cell towers and transmitters in other towns. Carriers
20 have attempted to build towers in the East Montpelier Center area and near Jacobs Rd, and in both
21 cases neighbors have bought out the development rights to the properties that would have hosted the
22 towers.

23 **Current Status**

24 Traditional landline telephone service plays an important, but diminishing, role. Many residents rely on
25 landlines to ensure telephone service when the power goes out. Consolidated Communications is the
26 primary landline service provider, although some residents obtain service through resellers such as
27 FirstLight.

28 New technologies are disrupting traditional landline telephone service. Some residents get their
29 telephone service through their internet service provider. Increasingly, however, people are relying on
30 cell phones not just for mobile communications but as their primary telephone service.

1 While we do not have data at the town level, 48% of Vermonters had only cell phones in 2018, and
2 another 11.3% primarily use cell phones although they do still have landline numbers.¹ Only 12.1% have
3 only a land-line, and 5% have no phone at all.² Vermont is a significant outlier in this regard – in most
4 states 3-5% of adults have only landlines, and in no other state was that number greater than 7%. The
5 number of adults relying solely on cell phones has increased rapidly: in 2013, only 31.4% had no landline
6 (and 15.3% relied exclusively on landlines).³ Younger adults are more likely to live in cell-phone only
7 households: in 2020, 80.4% of all Americans aged 25-29 and 83% of those aged 30-34 only had cell
8 phones, compared to 35% of those aged 65 or over.⁴ We do not have reason to believe that this pattern
9 would be significantly different in Vermont than it is nationally.

10 Availability of cell phone service is therefore very important to the town’s ability to attract new
11 residents, particularly those of prime working age and younger families who will continue to bring
12 children into the East Montpelier’s schools. People moving from outside Vermont are also more likely to
13 rely on cell phones.

14 As of early 2021, East Montpelier does not host any cell towers, though transmitters are in the process
15 of being installed on one farm silo in town. At the same time, the vast majority of town residents are
16 believed to own and use cell phones. Some areas of town have very good coverage, but others do not.
17 Map XX shows current coverage in town.

18 The burden of hosting communications infrastructure is often not borne evenly, however. Towers can
19 have a significant impact on the visual landscape in their immediate areas, while offering benefits to
20 people far from the area immediately impacted. The town has an interest in mitigating the disparate
21 nature of these impacts, both by suggesting areas where transmitters or towers can be placed which will
22 limit the impact and by identifying those areas that the town most wants to protect.

23 **Regulatory Process**

24 Regulation of telecommunications towers is governed by federal and state laws. The state Public Utility
25 Commission (PUC, formerly the Public Service Board) is responsible for permitting telecommunications
26 facilities under 30 V.S.A. § 248a. Municipal governments no longer have permitting authority over cell
27 towers, although they are allowed to participate in the state permitting process and are automatically
28 granted party status in 248a cases if they request it.

Comment [J1]: Town Plan uses short in-text citations instead of footnotes. Here, I would suggest (National Center for Health Statistics, *National Health Interview Survey*, 2018,) Or edit the text to identify the survey as the source of the data

Comment [ZS2]: I’m going to keep this as is for now because I’ve stored a bunch of information in the footnotes, will edit/standardize at the end.

Comment [ZS3]: I plan to consult the public service department to ensure that this section is accurate.

¹ National Center for Health Statistics, National Health Interview Survey, Modeled estimates (with standard errors) of the percent distribution of household telephone status for adults aged 18 and over, by state: United States, 2018, https://www.cdc.gov/nchs/data/nhis/earlyrelease/Wireless_state_201912-508.pdf, accessed 3/21/2021.

² Ibid.

³ National Center for Health Statistics, National Health Interview Survey, Modeled estimates (with standard errors) of the percent distribution of household telephone status for adults aged 18 and over, by state: United States, 2013, https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless_state_201412.pdf, accessed 3/21/2021

⁴ Blumberg SJ, Luke JV. Wireless substitution: Early release of estimates from the National Health Interview Survey, January-June 2020. National Center for Health Statistics. February 2021. DOI: <https://doi.org/10.15620/cdc:100855>, accessed 3/21/2021

1 Section 248a requires that the PUC give ‘substantial deference’ to town plans, although the PUC may
2 determine that the public good overrides a town plan. Section 248s also requires that the facility not
3 have an undue adverse impact on “aesthetics, scenic beauty, historic sites, rare and irreplaceable
4 natural areas; endangered species; necessary wildlife habitat.” The town’s *Land Use and Development*
5 *Regulations* provide criteria related to siting and design of cell towers. Although the town does not have
6 any regulatory authority over cell towers, the language in the regulations may be considered by the PUC
7 as the town’s interpretation of its Town Plan.

8 Federal law constrains what both the town and the state can regulate. The Telecommunications Act of
9 1996 bans municipalities and states from denying permitting of cell towers on the basis of the
10 environmental impacts of radio frequency (RF) emissions. This means that the town cannot regulate
11 based on health impacts of transmitters. Towns can regulate the impacts of the tower itself and any
12 infrastructure that must be built to accommodate it on the environment around them, e.g. the visual
13 impact of the tower, impacts on sensitive habitats either from construction or if a tower falls, etc., but
14 the Federal Communications Commission sets the standards for RF emissions.

15 **Cell Tower Siting Standards**

16 This Town Plan identifies resources to be protected and standards for cell tower siting and design.
17 Further details are found in Section 4.14 of the town’s *Land Use and Development Regulations*.

18 **Resources to be protected**

19 East Montpelier has significant scenic and natural resources, as outlined in Chapter 9 of the town plan.
20 Many of the identified scenic areas act functionally as public parks, with people from outside the area
21 coming to walk the roads there.

22 The town also has a well-used network of trails maintained by East Montpelier Trails, Inc. The town’s
23 trail resources are described in Chapter 4 of the town plan. Scenic views of forests, farms and vistas are
24 an important element of the trail experience. Communications towers should be placed such that they
25 do not directly impact the trail network, and in places where the visual impact on these trails are
26 minimized.

27 The town places a priority on protecting its natural environment, and the *Land Use and Development*
28 *Regulations* specify minimum distances that towers must be from streams and wetlands to protect them
29 from damage during construction or should a tower fall.

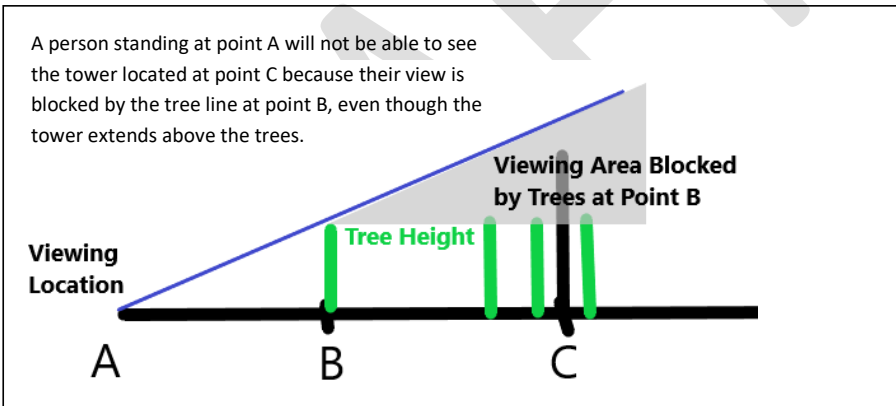
30 **Preferred Sites**

31 This plan does not identify specific locations which would be best suited for telecommunications
32 infrastructure, but it does identify certain types of sites where cell transmitters would be preferred.

- 33 • **Co-located on existing cell towers.** Where towers currently exist, the first priority should be to
34 co-locate new communications equipment on those towers.

- **Co-located with or affixed to existing infrastructure.** Transmitters may be mounted on existing large buildings such as industrial buildings, farm buildings or inside church steeples. Transmitters should not be visible in areas identified as significant scenic resources (Chapter 9, section G), but can be sited in ways that are not visible (e.g., within church steeples, on top of large buildings)
- **In forested areas where forest growth and topography can be used to mitigate visual impacts.** By setting towers back in forested areas, towers can have significant prominence above the canopy while causing minimal or no visual impact on travelled areas accessible to the public (e.g. public roads and trail systems protected for public use) or residences. For example, if tree cover blocks views of anything less than 60 feet tall 100 feet from the road (assuming flat ground), it will also block visibility of anything less than 120 feet tall 200 feet from the road, 180 feet tall 300 feet back, etc. Effectiveness of these measures in mitigating visual impact of a tower's prominence above tree line shall be established using photographic evidence from balloon tests, which will establish the apparent height of the tower and show whether the tower will be visible. In cases where a tower is shielded by deciduous trees, this criterion will be best met by tests conducted when the leaves are off the trees. The graphic below shows an example of this type of mitigation could work.

Comment [ZS4]: I will make or commission a better graphic if we decide we want to do this (Helen was a studio art major, and could probably make us something that we'd actually want to publish). This is a placeholder to help us decide if we like the idea and want to include the graphic in the plan.



Areas not suitable for cell towers

- **Village areas.** Communications towers should not be built within state designated village centers or within the zones making up the Village. This applies specifically to towers: transmitters may be located in these areas provided that they are hidden.
- **Scenic Areas.** Significant scenic areas are identified in the town plan under chapter 9, section G, and shown on map 12. This section also defines the characteristics that contribute to each area's status as a significant scenic area. No communications tower shall be visible within the foreground of any viewing area. The Land Use and Development Regulations specify the minimum distances that towers should be from these scenic areas.
- **Ridgelines.** Communications towers shall not be placed at the tops of ridgelines. Towers should not exceed the elevation of an immediate ridgeline when prominent views of a site exist.

- 1 • **In areas where a tower could damage homes, sensitive natural environments, and the**
2 **property of those not hosting the tower, in the even that it falls.** The *Land Use and*
3 *Development Regulations* give distances that towers should be set back from structures, water
4 features, and property lines.
- 5 • *Potential:* copy in natural resource protection from energy section?

6 **Goals and Actions**

- 7 ➤ Goal 6.18: Enable all areas of East Montpelier to have adequate cell service coverage to meet
8 the needs of residents, businesses and emergency service providers, while protecting the
9 town's scenic and natural resources.
- 10 ❖ Policy 6.18.1: East Montpelier supports cell service infrastructure that enables adequate
11 cell service coverage in all areas of town and that is sited and designed to protect the
12 town's scenic and natural resources.
- 13 ✓ Action 6.18.1: File for intervener status and/or submit public comments on Section 248a
14 applications before the Public Utility Commission that do not meet the siting and design
15 criteria described in the Town Plan and Land Use and Development Regulations.
- 16 ✓ Action 6.18.2: Consider whether conducting an inventory of suitable cellular facility
17 locations would be beneficial for both the town and cellular carriers and whether grant
18 funding for such a study is available.

19 TBD